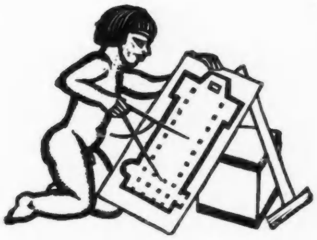

THE NEXT FIVE YEARS

IN the leading articles entitled "Mussolini and the L.C.C." and "London's Five-Year Plan," published in our issues for November 2 and 9 respectively, we referred to the plan of Rome initiated by Mussolini and gave a brief analysis of the state of planning—or lack of planning—in London. We have also exposed the glaring case of Carlton Gardens, which further demonstrates that the controlling hand of a Master Plan is imperative. The London County Council, the London Society and the Greater London Regional Planning Committee, therefore, should immediately get together and formulate a definite policy, in conjunction with the leading industrial and business interests, and in particular, the Building Industries National Council.

The Greater London Regional Planning Committee, as at present constituted, will be dissolved next March. Its inception was in the nature of an experiment, and its technical advisers have worked under serious limitations, in regard to scope and expenses. Unless the new Committee proposed to succeed it is run on more effective lines, there can be little hope of further progress.

The first essential factor to be considered, that of finance, devolves upon the individual authorities concerned: these number some 140 of varying rateable values (with a total rateable value of about £80,000,000). A very small contribution from each would form a sufficient fund to carry on the preparation of a Plan effectively, apart from Government support, or the possibility of the further support of important industrial and business interests.

This Greater London Region, consisting of the County of London and portions carved out of the adjoining counties into which London has spread, must eventually be administered by executive powers, such as might be conferred upon it as a Joint Executive Body under the new Town and Country Planning Act. Its financial resources should, in principle, be pooled to be applied to general matters concerning the respective and complementary needs of inner and outer London, and adjusted in agreement with the localized planning carried out by the individual authorities concerned.

The next step would be to secure the co-operation of the important landed interests, industrialists and estate developers. The tendency of modern business and industry is to embark upon enterprises on a larger scale than hitherto, and with a greater capacity for organization and co-ordination. So far town and regional planning have been concerned to a far greater extent with restrictions than with constructive planning; in other words, they have exhibited a largely *negative* attitude. This attitude can only be changed into a *positive* one by co-operation in the initial stages with industrial regional planning. Consequently, a more practical basis would be given to the Committee if representatives of industry and land development were co-opted members in the consideration of vital problems of development, as is now provided for under the new Act.

This is the only logical line of development for the new Committee to take: having formulated its preliminary principles and proposals, to co-ordinate these with the active industrial and business interests concerned; and then pass from an advisory to an executive capacity. This is a matter so obvious and so urgent that we need not emphazise that, little as has been done already, to confine its direction to a few officials would be an inadequate continuation. London, by its official inaction in this matter, has focussed the criticism of world opinion. Paris has its Development Plan and Executive; Rome, its Plan now being carried out; New York its comprehensive Regional Survey and proposals—and——*Manchester*, its Joint Regional Planning Committee, which has now been in operation *for over ten years*. For London to leave matters indefinitely at this stage would not be merely a confession of failure, but thoroughly ridiculous.

Further, a wise publicity should not be neglected. In times like these, more than ever, the imagination of the public requires to be stirred, and life and colour given to ideas and ideals which, shrouded in misty generalities or suffocated by reams of statistics, may get no further than the filing room of the Ministry of Circumlocution.

The Town Planning Acts have recently increased in scope with regard to re-planning built up areas and rural districts, but they are still full of ambiguities and perplexities. It would seem to be a waste of time and ingenuity to endeavour to compress such a unique and vital problem as the Plan of London in its initial stages into a too restricted legal framework. In this case it is surely more logical to decide first what to aim at, and then to seek the necessary complementary powers, rather than to produce a half-baked scheme. The initial scheme should be definite in its principles, and concrete in its main lines. Here an agreed policy with the important industrial interests should hasten the carrying out of the Plan in earnest; whilst a Master Plan would ensure that the viewpoint of public amenity is paramount.

Finally, there is the relation of Greater London to the National Plan. The tendency for the excessive concentration of the population towards one centre is not only a cause of local congestion, but a sign of national dislocation. We cannot ignore the vital fact that the economic problem of the London Region is inseparable from the Regional Planning of the rest of the country. But that it is a definite sphere of influence, dominated by common needs and aspirations, is the main principle we wish to emphasize.

Mere size, after all, is not the criterion of greatness, but also the scale and relation of the parts to the whole. New and greater combinations are before us, as economists, as organizers, as artists; the time to plan ahead is *now*, remembering that no amount of theory can take the place of the *will to plan*.

In our next issue—the New Year Number—we shall expose the disastrous results of false "economy"; and co-ordinate the necessity for building with the necessity for a Plan.

"*England must reorganize or disintegrate*."

NEWS & TOPICS

CARLTON HOUSE TERRACE

I HAVE received a letter from Mr. Gerald McMichael, who asks whether Mr. Dungay, whose letter I printed in my notes last week, has not got somewhat entangled in the cobwebs of his own verbosity. Proceeding, Mr. McMichael says:

> Who said the design was a vandalistic design? The vandalism about the business is that Nash's design has in any way been interfered with; that is the whole point—that a fine *tout ensemble* of a very fine piece of old architecture has been, or rather would be, messed up if Sir Reginald Blomfield's design was carried out.
>
> There are other sites where this design would, of course, add to the amenities of the district, but here it can only help to spoil them.
>
> It is not a question of hot air, but it is a question of a deep-seated instinctive resentment against spoiling what is obviously a very interesting piece of Regency architecture, which most intimately appeals to all those who have a real feeling for architecture.
>
> I think the arguments of the Commissioners of Crown Lands are perfectly unjustifiable.

*

I have also received the following letter from Mr. Phillip J. Turner, F.R.I.B.A., the Vice-President of Quebec Association of Architects and the representative on the R.I.B.A. Council for the Royal Architectural Institute of Canada.

> As one who had his office in the vicinity of Carlton House Terrace for five years and who enjoyed almost every day seeing the dignified appearance of the Terrace and Gardens, I read with a great deal of regret and dismay that there is a prospect of this interesting example of formal architecture in London disappearing before the spread of commercialism.
>
> One fails to understand what the Government officials and the Commissioners of Crown Lands are thinking of, in allowing the architectural unity of the Mall to be ruined in such a way as now contemplated.
>
> In a new country like Canada, we do not lose our interest in anything that concerns the architectural well-being of the Old Land, and for our guidance in helping to build up new cities here, we are inclined to quote what is being done in the Old Land. We admire the care, thought, and efforts given to the preservation of old buildings and the beauty of the countryside in England, but fail to understand now, why, right in the heart of the Empire, such "bad manners" are permitted or contemplated in the particular district referred to, in allowing commercialism to spoil dignity. On a recent visit to London, one could not help regretting that the fine old Quadrant of Regent Street had gone, but there will be still further cause for regret from Londoners in Canada if an old landmark like Carlton Gardens and Terrace is spolt, for there seems no good reason why such a thing should be allowed to happen.
>
> I trust the attention the JOURNAL has given to the desecration contemplated will result in the old landmark being preserved to the nation in its entirety.

OUR NEW YEAR ISSUE

Various schemes for combating the building depression have been formulated, and the Public Relations Committee of the Building Industries National Council has been formed largely with the object of devising means of setting the industry once again on its feet. THE ARCHITECTS' JOURNAL *conceives it its duty to devote its New Year Number, to be published on Wednesday next, January 11, very largely to the objects which the whole industry must have at heart. This number, therefore, will review the present position of the industry, the effects of unemployment in building on the prosperity of the country as a whole, the urgent need for a reversal of the present policy in relation to municipal expenditure, and the reasons why the present time is essentially the right time for setting building operations on foot.*

*

ECONOMY IN SCHOOL BUILDING

Mr. Herwald Ramsbotham, the Parliamentary Secretary to the Board of Education, has been considering, in consultation with his officials, the possibility of more economy in the building of schools. There is a general desire on the part of education committees to pull down a number of the old-fashioned schools, where ventilation and illumination are bad.

*

The one-story schools that can be opened to the air in fine weather, such as have been designed by Mr. Topham Forrest, of the L.C.C., are more economical to construct and are, I am sure, much better for the health of the children. Just as there are to be clearances of slum dwellings, so it is hoped before long to embark on a clearance of slum schools.

*

But, first, attention is being given to varying costs. A case has recently been placed before the Board of Education

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THE ARCHITECTS' DIARY

WEDNESDAY, JANUARY 4

R.I.B.A., 9 Conduit Street, W.1. Last of the series of three Christmas Holiday Lectures for Children. "How London Grew." By E. R. Jarrett, A.R.I.B.A. **3.30 p.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "A Tour in Greece." By E. R. F. Cole. **6 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Home Office Industrial Museum, S.W.1. "Soil Heating by Electricity." By C. A. Cameron Brown, B.Sc. **7 p.m.**

SATURDAY, JANUARY 7

Sunrise, 8.4. Sunset, 4.8.

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 1933. Until March 11. 10 a.m. to 6 p.m. **10 a.m.**

MONDAY, JANUARY 9

R.I.B.A., 9 Conduit Street, W.1. General Meeting. Award of prizes and studentships. Criticism by H. Chalton Bradshaw, F.R.I.B.A., on work submitted. **8 p.m.**

THE CHARTERED SURVEYORS' INSTITUTION, 12 Great George Street, Westminster, S.W.1. "Crown Lands." By A. S. Gaye, C.B., O.B.E. (Commissioner for Crown Lands). **8 p.m.**

INSTITUTION OF SANITARY ENGINEERS. At Caxton Hall, Caxton Street, Westminster, S.W.1. Presidential address by Henry C. Adams. **6 p.m.**

TUESDAY, JANUARY 10

INSTITUTE OF LANDSCAPE ARCHITECTS. At the Royal Horticultural Hall, Greycoat Street, S.W.1. "Baroque Gardens of Europe." By G. A. Jellicoe, A.R.I.B.A. **3.30 p.m.**

ILLUMINATING ENGINEERING SOCIETY. Visit to Watson House, Nine Elms Lane, S.W.8. Address by C. A. Masterman on "The Work of the Laboratories at Watson House, with special reference to some recent developments in Gas Lighting." **6.30 p.m.**

WENESDAY, JANUARY 11

INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch. "Structures with Welded Connections." By Charles Donald, B.SC., A.M.INST.C.E. **7.30 p.m.**

of an authority which is building a school at the cost of about £40 per place, although two years ago in the same district, a school of the same size was built at a cost of about £26 per place.

*

A WASH DOWN AT SOUTHWARK

What sort of an omen is it for the *two* successful competitors of Southwark Town Hall competition to find that the building has been given a thorough wash down? I hear that as the work progressed over the grimy old brick face a scarlet blush suffused the features of the building.

*

LONDON UNIVERSITY NEW BUILDINGS

Last Thursday I visited the vast site in Bloomsbury of the new buildings for the London University and saw the first sod cut of the first section of the work, which comprises the Senate house, the administration block and the great hall. I also witnessed the taking of the first "shots" in the making of a film which eventually will form a complete record of the building of the University. These "shots" were of the small party—which included Dr. E. Deller, Principal of the University; Mr. H. Claughton, clerk to the University Court; Mr. Charles Holden, F.R.I.B.A., from whose designs the buildings will be erected; and Mr. Travers Morgan, consulting engineer for the structural work—who toured the site and saw the digging operations begin.

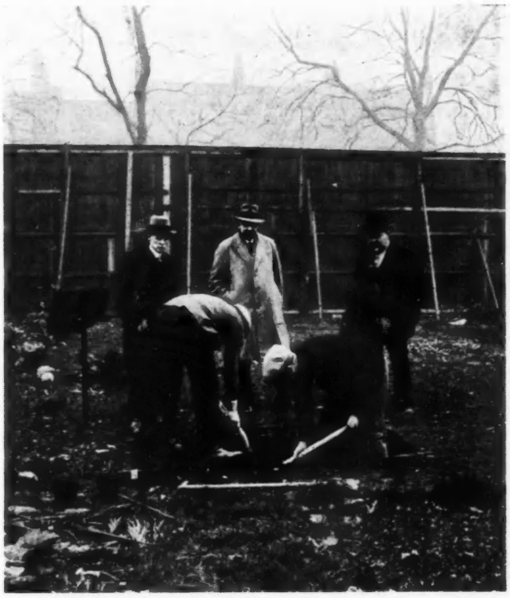
*

FALLING OFF OF DISTRICT SURVEYORS' FEES

District surveyors are lamenting the reduction of their fees. The latest report shows that the fees received in 1931 were only £89,000 in London as compared with over £103,000 in 1930. The County of London is divided into 43 districts, and in some centres the work is so heavy that there has to be a deputy.

*

The largest fees received were in South Westminster, with over £4,000; in East St. Marylebone, with over £3,900; and, in Camberwell, with £3,300. The three districts where the fees amounted to less than £1,000 were Stoke Newington, Clapham and West Lewisham. It must not be imagined, however, that all these fees go into the pockets of the District Surveyors and their Deputies for their personal use. They have to pay office expenses themselves, and these amount to nearly 30 per cent. of the gross fees received.



Cutting the first sod on the site in Bloomsbury of the new buildings of the London University.

*

RATHER EFFECTIVE

I met a client of mine at his new modernistic house, nearing completion, which he had insisted should be faced externally with *white* cement. "Why the——," said my client, "have you painted it *blue?*" "Your wife told me to," said the builder. "H'm," said my client, turning to me, "I think it's rather effective, don't you?"

ASTRAGAL

OTHER NEWS ITEMS

New Year's Honours List

Among the names in the list of New Year Honours are the following:

BARONS: Sir Joseph Duveen, Bt. He presented the nation with the Elgin Marbles, now at the British Museum, and is a trustee of the National Gallery. Sir Thomas Jeeves Horder, Bt., K.C.V.O., Senior Physician to St. Bartholomew's Hospital and a cousin of Mr. P. Morley Horder.

POINTS FROM THIS ISSUE

Save money by using it for building 6
The best paint in the world will not hold a building together 16
How Mr. Everyman's home might be improved 17
The problems of planning should be tackled immediately it is decided to develop a district for residential purposes 17
"*Shell House, Berlin . . . the finest office building in the world*" 18
There has been a tendency to imagine that all our economic ills can be cured by cartels, by combines, and by standardization 24

KNIGHTS-BACHELOR: Ambrose Heal, Chairman and Managing Director of Messrs. Heal and Sons, Ltd.: in recognition of his services to the industrial arts and crafts. Eric R. D. Maclagan, C.B.E., F.S.A., Hon. A.R.I.B.A., Director and Secretary, Victoria and Albert Museum. Harley Hugh Dalrymple-Hay, M.INST.C.E., Consulting Engineer: for services in connection with the construction of tube railways.

COMPANION OF THE ORDER OF ST. MICHAEL AND ST. GEORGE: Lawrence Ennis, O.B.E., Constructing Engineer for Messrs. Dorman Long and Co., Sydney Harbour Bridge, New South Wales.

Carlton House Terrace

In view of the widespread indignation caused by the action of the Commissioners of Crown Lands in tearing down No. 4 Carlton Gardens, formerly the house of Lord Palmerston and Lord Balfour, and proposing to erect a huge block of offices in Portland stone to tower 30 ft. above the rest of the Terrace, a strong defence committee is being formed (writes Miss M. I. Batten). Mr. J. C. Squire, editor of *The London Mercury*, who played such a leading part in saving the city churches, and in preserving Stonehenge for the nation, is actively concerned in the formation of this committee. As building on the site of No. Four Carlton Gardens is still proceeding, in spite of every effort of Major Elliot, the Minister of Agriculture, to suspend it, the matter is of extreme urgency, and the first meeting of the Committee will be held as soon as possible.

Manchester Exhibition

Arrangements have been made by the Incorporated Association of Architects and Surveyors and Lewis's, Ltd., Manchester, for an exhibition, to be held at the latter's building, from January 19 to 28 inclusive, of the designs submitted in the £1,000 All-British House Competition. Models made by John B. Thorpe, of the three premiated designs will form part of the display. In addition to the architectural designs, Sir Edwin Lutyens, R.A. (President of the I.A.A.S.) has loaned to the exhibition some of his Royal Academy drawings, which will include the original drawing of the Cenotaph and his plans of the New Liverpool Cathedral. The latter are being publicly exhibited for the first time by permission of the Rt. Rev. Dr. Downey, Archbishop of Liverpool.

The exhibition will be opened by Sir Edwin Lutyens at 11 a.m. on Thursday, January 19. He will be received by the Lord Mayor of Manchester.

Build Now !

Sir Raymond Unwin, P.R.I.B.A., has issued, through the Special Committee for Public Relations of the Building Industries National Council, the following New Year's message :

> It is my earnest hope that the citizens of this country, both as individuals and in their various administrative groupings, will see the wisdom throughout the coming twelve months of saving their money by using it for building while prices are low and interest otherwise obtainable small.
>
> In this fashion not only will the money so put to use be truly saved, but for every £1,000,000 of it devoted to new building and constructional work during 1933, the wastage on unemployment benefit and public assistance will be redeemed to the extent, it is estimated, of about £375,000.

Forthcoming Dinners

A dinner will be held by the Town Planning Institute at the Savoy Hotel, W.C.2, on Friday, March 24. The Rt. Hon. Sir Edward Hilton Young, G.B.E., M.P. (Hon. Member) will be the principal guest.

The Leicester and Leicestershire Society of Architects is holding its annual dinner at the Leicestershire Club on Friday, January 27.

International Congress for Modern Architecture

The Fourth of the "Congrès Internationaux d'Architecture Moderne" is to be held in Moscow from June 1–10. The subject chosen will be "The Functional Town."

As a result of the active interest and sympathy shown by the Russian authorities it has been decided to hold the coming Congress on a much larger and more ambitious scale than has hitherto been attempted. For the first time all the work shown and the papers discussed at the previous congresses will be exhibited. In connection with this there will be a very rigorously selected survey of functional modern building in all countries, with a special Swiss section. In addition to these exhibits the Soviet Government has planned a complementary "Exhibition of Contributions to New Forms of Existence."

The Congress, which now represents 20 different countries—though Great Britain is unfortunately still not among them—has been officially invited to Moscow by the Soviet Government. Arrangements have been made by which non-members and nationals of countries that are not officially represented who join the "Circle of Friends of the International Congresses for Modern Architecture" will be able to participate under the most favourable conditions as regards travelling facilities, board and lodging.

All inquiries should be addressed to the General Secretary of the Congress : Dr. Siegfried Giedion, Zürich, 7, Doldertal. 7, Switzerland, who particularly hopes to be able to welcome young English architects.

R.I.B.A.

THE NEXT MEETING

On Monday next, January 9, the Council's award of the R.I.B.A. Prizes and Studentships for the past year will be announced and Mr. H. Chalton Bradshaw, F.R.I.B.A., will deliver his criticism of the work submitted.

The prize drawings will be on exhibition in the R.I.B.A. Galleries from January 10 to 28 during the hours of 10 a.m. and 8 p.m. (Saturdays 10 a.m. to 5 p.m.).

The Council's nomination for the Royal Gold Medal for 1933 will also be announced.

THE ANNUAL DINNER

The annual dinner will be held at Claridges Hotel, Brook Street, W.1, on Friday, March 12. 6.45 for 7.15 p.m.

THE NEW HEADQUARTERS

For the new headquarters for the R.I.B.A., work on which starts in March, Mr. Bainbridge Copnall has been commissioned to prepare sketches for the sculpture and decoration ; Mr. J. A. Woodford and Mr. Maurice Lambert studies for sculpture ; and Mr. Jan Juta studies for decorative work in glass and metal.

THE EXAMINATIONS

The Final Examination

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from December 7 to 15, 1932. Of the 159 candidates examined 70 passed (27 in Part 1 only) and 89 were relegated.

The successful candidates are as follows :—

Bailey, A. ; Bedford, E. ; Blythin, C. F. : Brown, A. ; Darbyshire, L. ; Davies, E. ; Eley, T. H. ; Elgar, S. ; Excell, K. ; Farnsworth, J. E. : Firth, E. ; Freeborn, E. E. : Griffiths, G. D. : Heathcote, E. R. ; Hewitt, F. A. ; Hutt, H. M. : Kendrick, A. W. R. : Marston, W. E. ; Miller, J. ; Overend, A. B. : Padmore, R. B. ; Page, R. J. ; Pescod, H. G. : Poltock, J. W. : Risbridger, H. J. ; Robb, G. : Robinson, A. : Rothwell, F. L. ; Segrais, J. J. Le Juge de : Simpson, R. G. ; Smith, C. B. : Smith, W. C. B. : Spivey, C. A. : Thwaite, T. E. S. ; Tozer, C. R. ; Underwood, W. : Walmsley, W. G. : Waters, A. B. : Watkinson, P. G. ; Woolley, F. E. ; Wright, W. G. ; Wright, F. W. : Wrinch (Miss) Beris.

Successful candidates in Part 1 only : Bates, B. H. : Carroll, Miss K. M. ; Chantrey, G. H. B. : Clarke, E. : Cookson, R. E. : Cooper, A. W. : Cowley, G. J. D. ; Dewing, F. M. : Doe, H. E. ; Duxbury, L. : Edleston, R. C. : Firmin, E. H. ; Greenwood, S. ; Hay, G. S. : Hersch, R. S. ; Hodgess, I. S. : Houfe, E. A. S. ; Israel, L. ; Jones, J. R. : Layfield, A. C. : Lowe, W. L. : Nicholson, W. L. ; Peat, J. T. W. ; Simmons, C. H. ; Smeeton, R. A. ; Stallard, E. G. : Thomas, O. M.

The Special Examination

The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London from December 7 to 13, and in Edinburgh from December 7 to 15. Of the 18 candidates examined 5 passed (1 in Part 2 only) and 13 were relegated.

The successful candidates are as follows :—

Bertram, T. : Fowler, J. H. ; Pearce, L. (Part 2 only) : Sutherland, R. O. ; Thacker, E. G.

Professional Practice

The examination in professional practice for students of schools of architecture recognised for exemption from the R.I.B.A. Final Examination was held in London and Edinburgh on December 13 and 15, 1932. Of the 29 candidates examined 20 passed and 9 were relegated.

The successful candidates are as follows :—

Ambrose, E. S. : Ashton, R. ; Bannerman, D. G. : Bennett, H. : Chatwin, A. B. ; Dillon (Miss), C. J. ; Galletly, J. ; Harvey, D. : Maclennan (Miss), E. L. ; Miller, A. ; Morrison, A. J. W. : Saurin, C. P. ; Savill, A. G. ; Scaife, E. F. : Spence, B. ; Steele, D. R. ; Sutherland, A. C. ; Sutherland, W. T. ; While, G. H. : Whitwell, F. J.

COMPETITION NEWS

Mental Hospital

The Glasgow Corporation has appointed a sub-committee to arrange the conditions for competitive plans which are to be invited from members of the Glasgow Institute of Architects, for the extension of Hawkhead Mental Hospital.

Competitions Open

February 1.—The city of Stockholm invites designs for a town plan for the part of the town called Lower Norrmalm. 60,000 kronors (£3,077) in prizes, 1st premium, 20,000 kronors (£1,025).

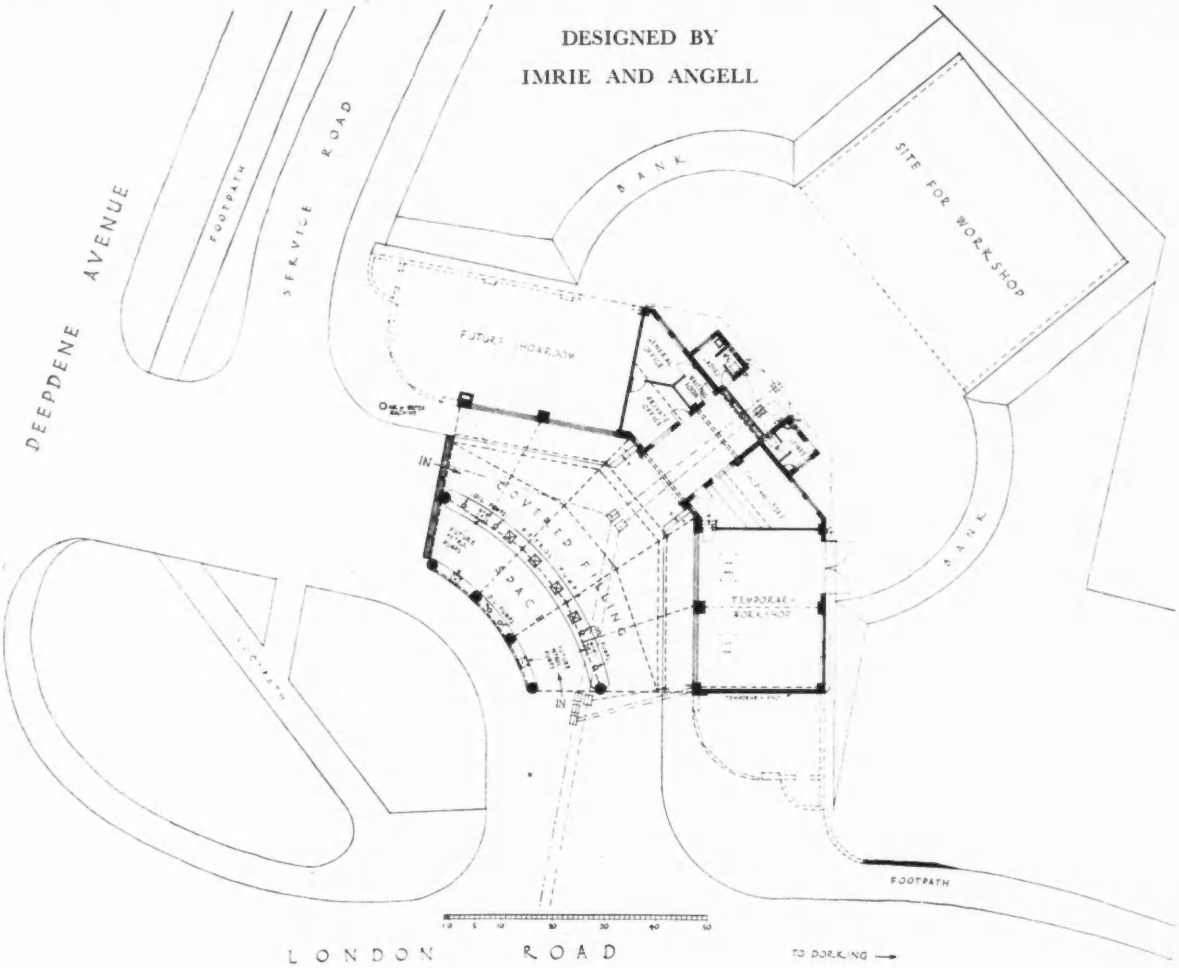
May 31.—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

Full Particulars of the above competitions were published in our issue for December 7.

PIPPBROOK FILLING STATION, DORKING, SURREY

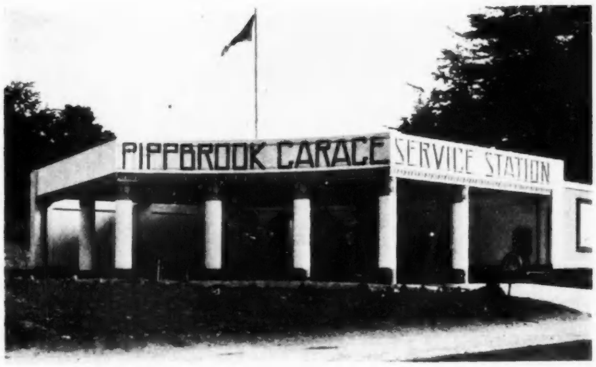
DESIGNED BY

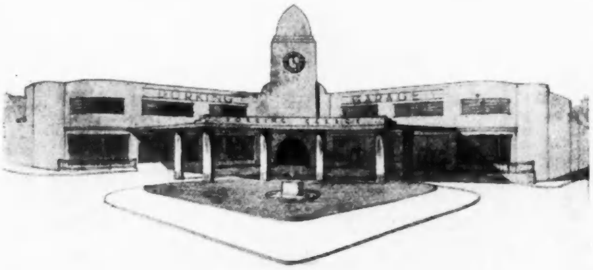
IMRIE AND ANGELL


DEEPDENE AVENUE
FOOTPATH
SERVICE ROAD
BANK
SITE FOR WORKSHOP
FUTURE SHOWROOM
IN
COVERED FILLING SPACE
TEMPORARY WORKSHOP
IN
FOOTPATH
BANK
FOOTPATH
10 5 0 10 20 30 40 50
LONDON ROAD
TO DORKING →

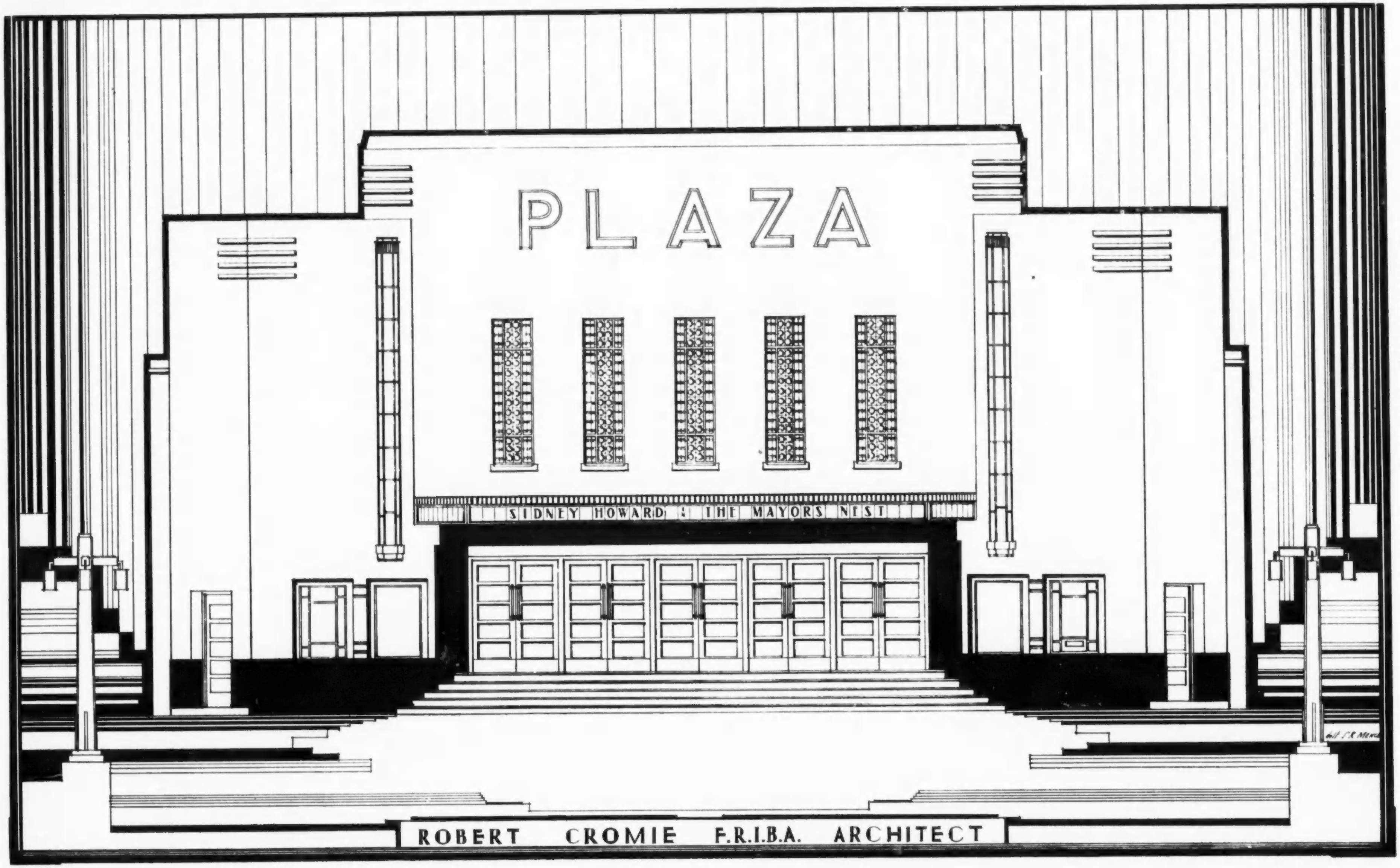
The photograph below shows the building so far completed as a covered filling and general service station. The present building is part of a larger scheme, as shown by the dotted lines on the plan, and the perspective drawing gives some indication of its ultimate appearance. The temporary workshop will form part of a showroom.

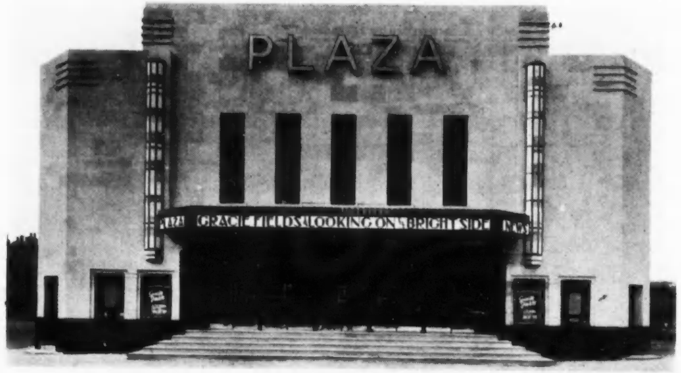
The walls are built of brick, and the covered filling space is constructed with steel girders and wood joists and is floored with asphalt. The stanchions are covered with cast concrete columns, and they, as well as the remainder of the external facework, are rendered with white cement, the whole being finished off with a black cement plinth. The caps of the columns and the decorated band to the parapet were cast in cement, the ornament being picked out in brilliant colours with cellulose paint.

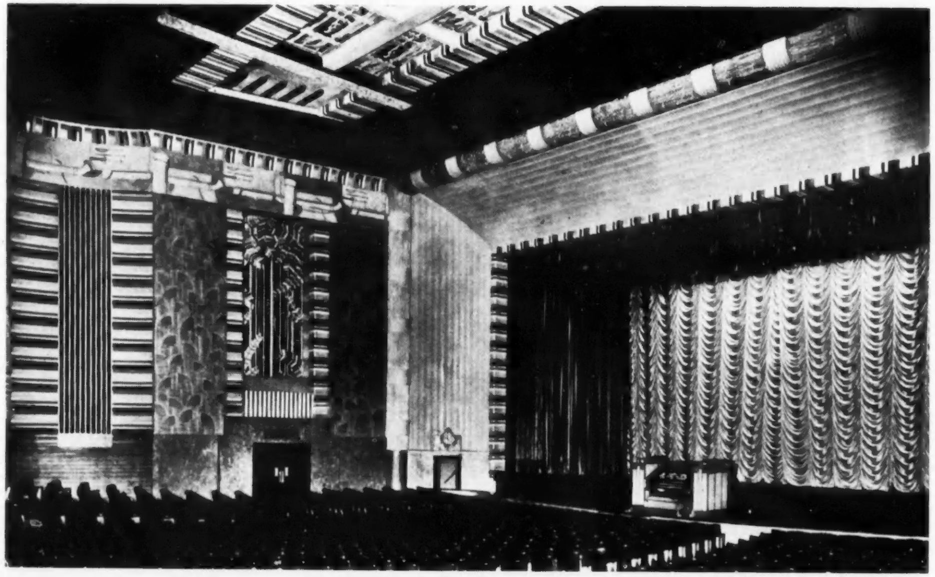

PIPPBROOK GARAGE
SERVICE STATION


DORKING GARAGE

THE PLAZA CINEMA, SOUTHAMPTON : DESIGNED BY ROBERT CROMIE

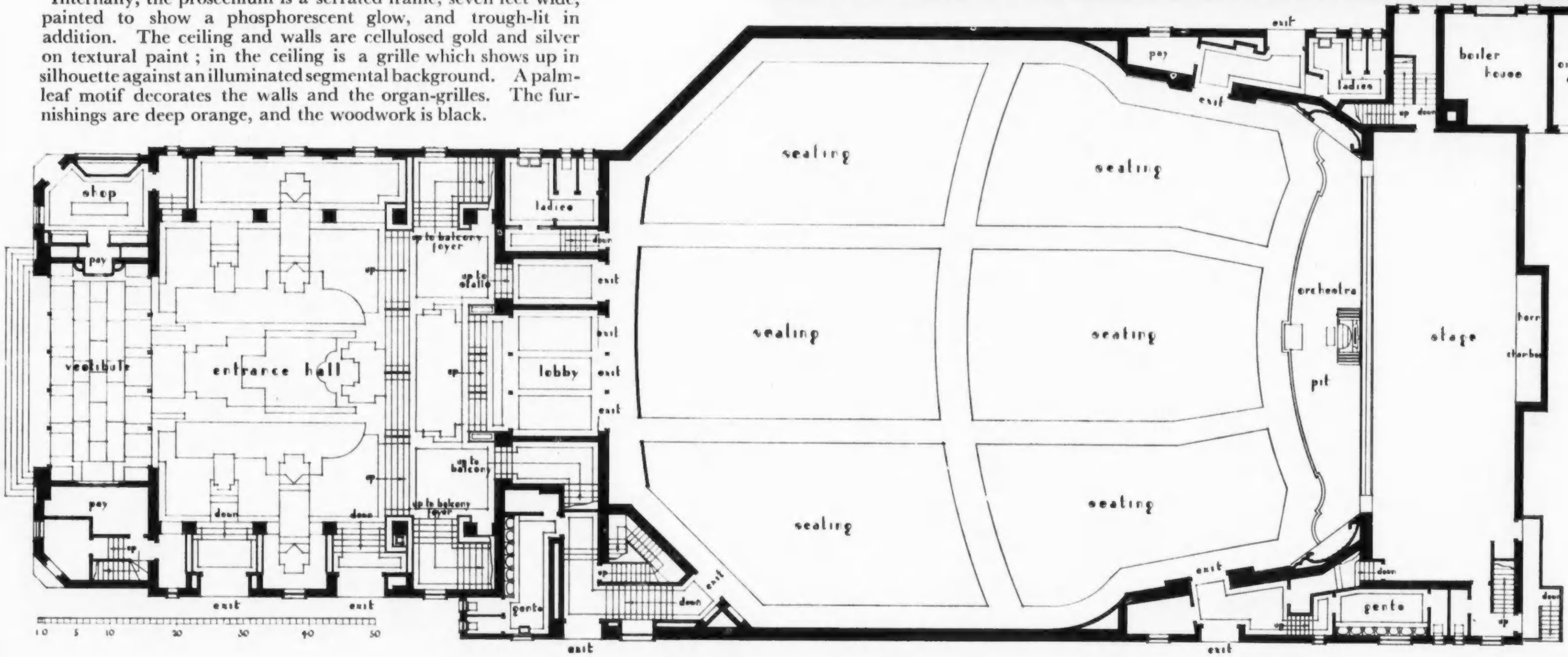

PLAZA
SIDNEY HOWARD : THE MAYORS NEST
ROBERT CROMIE F.R.I.B.A. ARCHITECT


PLAZA
PLAZA GRACIE FIELDS LOOKING ON THE BRIGHT SIDE NEWS

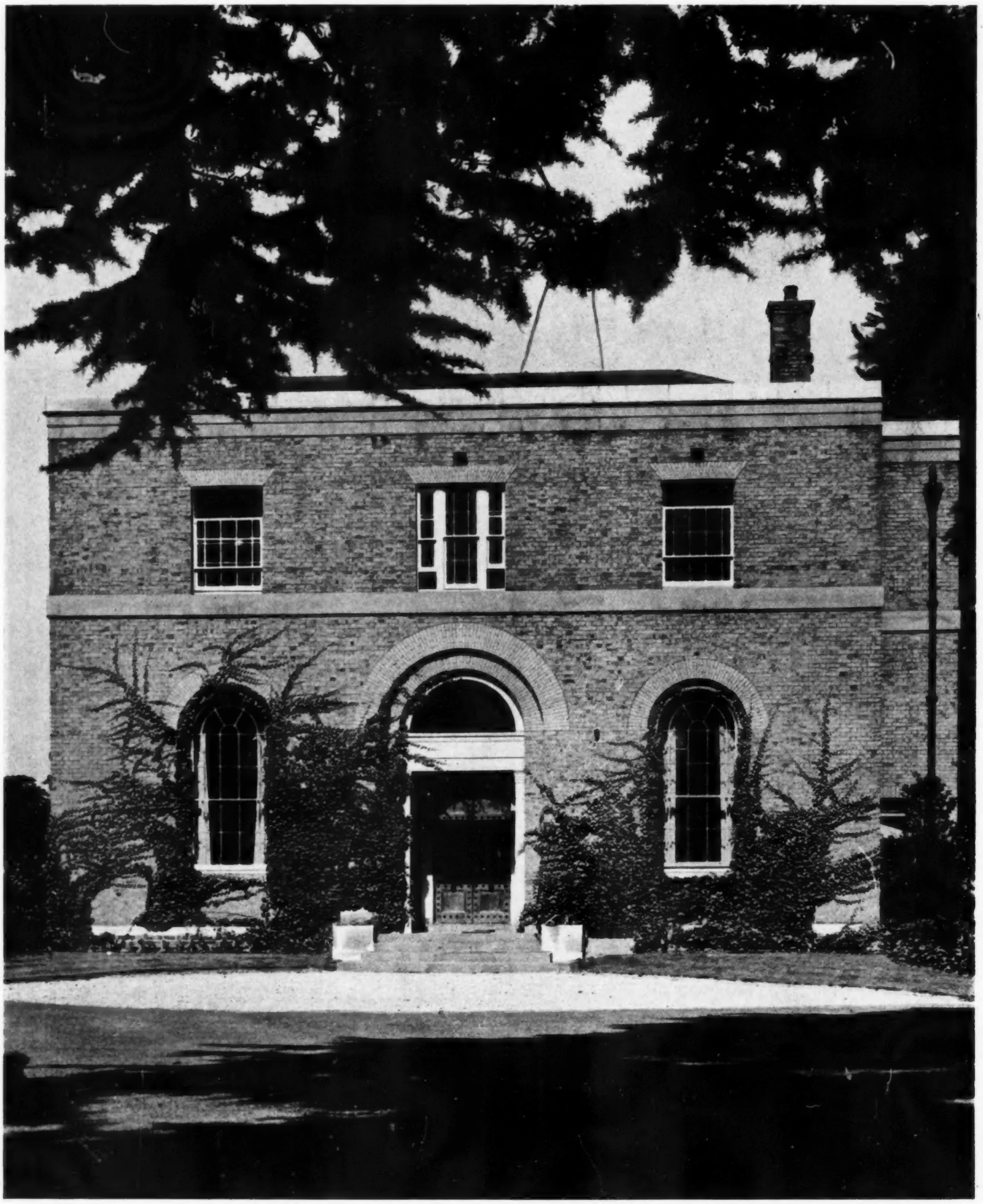


The exterior of this new cinema, at Northam, Southampton, seating an audience of 2,000 and with a large car park in front, is carried out in white stone, black faience and gilded metal. Provision has been made for flood-lighting it with changing colours ; neon signs are also incorporated in the design. The building stands only a few yards from the sea-wall and, owing to foundation difficulties, the body of the theatre is elevated some seven feet, but this level is reached in easy stages, as shown on plan.

Internally, the proscenium is a serrated frame, seven feet wide, painted to show a phosphorescent glow, and trough-lit in addition. The ceiling and walls are cellulosed gold and silver on textural paint ; in the ceiling is a grille which shows up in silhouette against an illuminated segmental background. A palm-leaf motif decorates the walls and the organ-grilles. The furnishings are deep orange, and the woodwork is black.

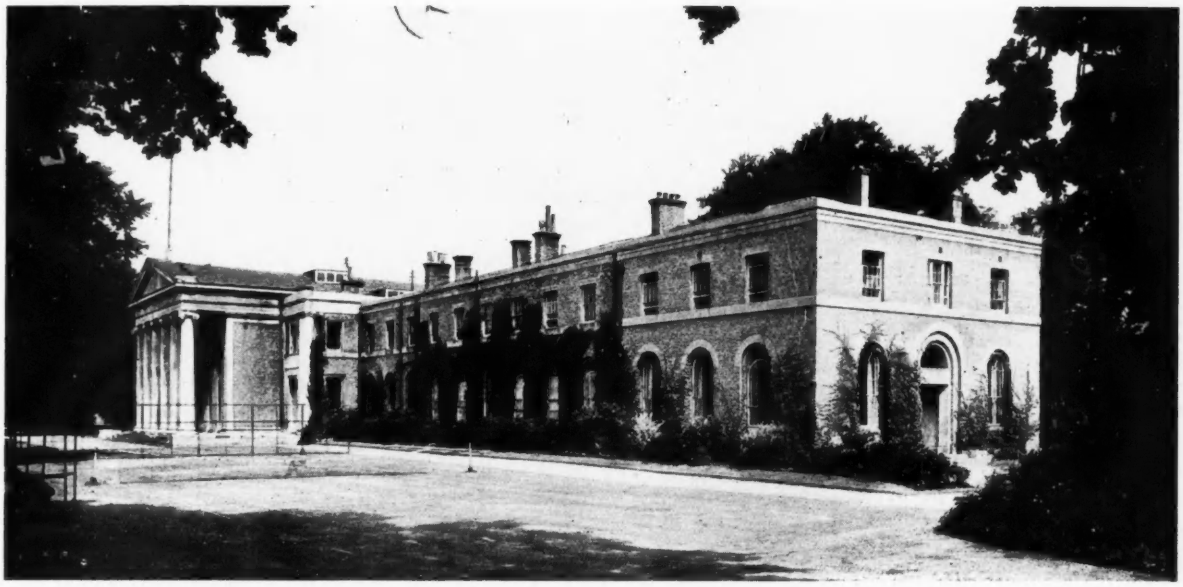

shop
pay
vestibule
entrance hall
pay
up
down
down
up to balcony foyer
up to stalls
up to balcony
up to balcony foyer
ladies
lobby
gents
exit
exit
exit
exit
exit
exit
down
seating
seating
seating
seating
seating
seating
orchestra
pit
stage
horn chamber
pay
ladies
boiler house
oil fuel store
up
down
gents
exit
exit
10 5 10 20 30 40 50

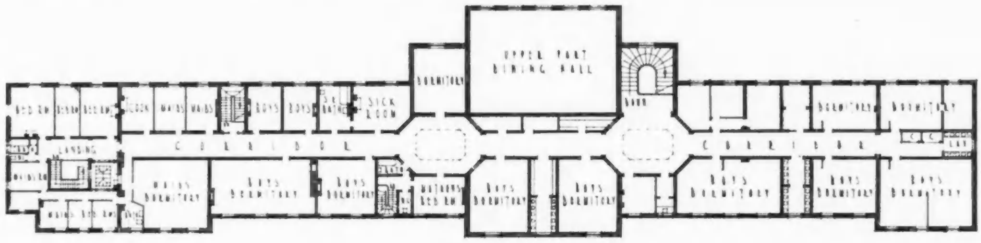
HOUSEMASTER'S NEW QUARTERS, MILL HILL



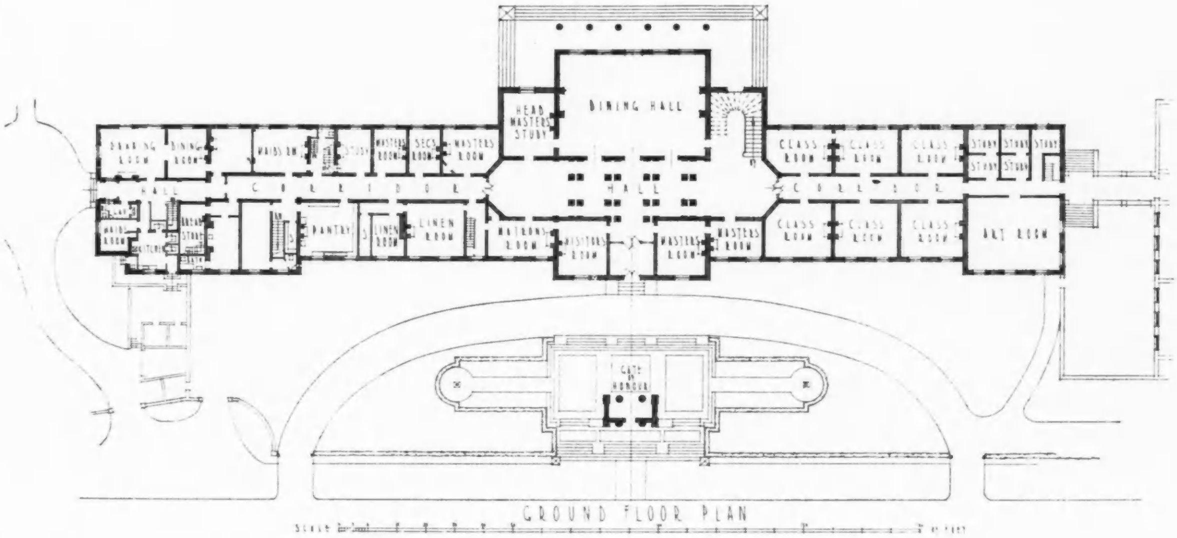
The addition shown on the left of the plans (new work in black) was erected to provide new accommodation for the Housemaster, in materials similar to the old work, and similarly treated. Yellow stocks have been employed for the general walling, with yellow rubbers for the arches and other

SCHOOL, N.W.: BY STANLEY HAMP (Collcutt and Hamp)




BED RM
BED RM
BED RM
SCHOOL
MAIDS
MAIDS
BOYS
BOYS
SR BATH
SICK ROOM
DORMITORY
UPPER PART DINING HALL
DORMITORY
DORMITORY
LANDING
CORRIDOR
MAIDS BED RMS
MAIDS DORMITORY
BOYS DORMITORY
BOYS DORMITORY
MATRONS BED RM
BOYS DORMITORY
BOYS DORMITORY
CORRIDOR
LAV
C
C
BOYS DORMITORY
BOYS DORMITORY
BOYS DORMITORY

FIRST FLOOR PLAN


DRAWING ROOM
DINING ROOM
MAIDS RM
STUDY
MASTERS ROOM
SECS ROOM
MASTERS ROOM
HEAD MASTERS STUDY
DINING HALL
CLASS ROOM
CLASS ROOM
CLASS ROOM
STUDY
STUDY
STUDY
STUDY
STUDY
HALL
CORRIDOR
HALL
CORRIDOR
LAV
MAIDS ROOM
KITCHEN
BREAD STORE
BATH
PANTRY
LINEN ROOM
LINEN ROOM
MATRONS ROOM
VISITORS ROOM
MASTERS ROOM
MASTERS ROOM
CLASS ROOM
CLASS ROOM
CLASS ROOM
ART ROOM
GATE OF HONOUR
SCALE

GROUND FLOOR PLAN

dressings. The general dressings are in Portland stone, and the windows throughout are in wood. Flat roofs are used, covered with asphalt. The accommodation provided is clearly indicated on the plans, reproduced on this page, which show its relation to the original structure.

VANDALISM AND HIGH RENTS

LESSONS FROM REGENT STREET AND CARLTON HOUSE TERRACE

On Monday next, Mr. A. S. Gaye, C.B., O.B.E., the Commissioner for Crown Lands, will read a paper entitled "Crown Lands," at the Chartered Surveyors' Institution. It will be interesting to see how his views compare with those given in the following article.

THE destruction of Number Four Carlton Gardens, the home of Lord Palmerston and Lord Balfour, by the Commissioners of Crown Lands, has not only caused the fiercest and most violent indignation. It has focussed general attention upon these mysterious Commissioners, their mysterious methods, and their mysterious absence of any apparent feeling of public responsibility. To understand what these Commissioners are up to it is necessary to trace briefly the story of the Crown Lands.

The story begins in Saxon times, but it only comes into real history with the Norman kings. The Norman kings owned land. That is the real historical beginning of Carlton House Terrace. But it is of immense importance to realize that even in those days of autocracy the king only held the lands as the king. He could own nothing as a private citizen. In consequence, as Sir William Anson says in his classic work on the Constitution, from the earliest times the Crown Lands have been indissoluble from "the public duty." Later, in Plantagenet and Tudor and Stuart days, Parliament, as the watch-dog of the "public duty," frequently interfered in the administration of the Lands.

In particular, Parliament came to the conclusion, after Charles II had exchanged some of the Crown Lands for a good deal of deliciousness, that the power to alienate the Lands should be extracted from the hands of the Monarch, however Merry. When George III came to the throne therefore, in 1760, it was pointed out by some sensible person that though the Crown Lands could never fluctuate in size, they always fluctuated in value, and George III, prudent and thrifty German, at once agreed to surrender them in exchange for a fixed income. The position was subsequently consolidated by the Crown Lands Act of 1829, which governs the administration of the Lands to-day.

The department of bureaucracy, to which was allotted the administration, used to be called His Majesty's Commissioners of Woods and Forests, but not many years ago the name was changed to the Commissioners of Crown Lands. There are two Commissioners. One is, *ex officio*, the Minister of Agriculture and Fisheries, and the other is the Permanent Commissioner, at present Mr. A. S. Gaye, C.B., O.B.E. There is some confusion about their respective powers *vis-à-vis* each other, and questions a fortnight ago in the House of Commons, elicited from the Minister of Agriculture and Fisheries, Major Elliot, no clearer statement than that no recorded clash had ever taken place between the two Commissioners, and that he did not know what would happen if a clash did occur.

Another question in the House, by Sir William Davison, contained the definitely challenging statement that "the two Commissioners have equal powers," and was not contradicted.

So much for the history of the Commissioners.

Now for their record.

The Crown Lands consist of 251,000 acres (exclusive of fisheries), and on these 251,000 acres lie the one great bit of town-planning that London, the world's greatest city, possesses, Nash's mighty sweep from St. James's Park, past the Duke of York's column, up his curved Regent Street and into Regent's Park. This belongs to the nation, just as the Koh-i-Nor, and Shakespeare, and the Elgin Marbles, and Velazquez's Philip IV, and Winchester Cathedral, and the making of Devonshire cider and the flowery hedgerows of Buckinghamshire belong to the nation.

Nash's work was in the charge of the nation's paid servants.

What did they do, and what are they doing?

In 1919 the 100-year leases of Regent Street fell in, and the Commissioners announced the rebuilding of Regent Street. But they had no comprehensive uniform plan as poor despised John Nash had. How could they have? As early as 1894 they had allowed a shop to rebuild itself in a style of its own. Half a dozen new buildings were allowed to crop up before the leases fell in, including the Piccadilly Hotel, designed by Norman Shaw and completed in 1908. Sir Reginald Blomfield, to whose designs the Quadrant was rebuilt, describes in his *Memoirs of an Architect* the difficulties which he had to grapple with because of the existence of the Piccadilly Hotel. The Quadrant and part of Piccadilly Circus was rebuilt as much as possible to a comprehensive scheme, but the rest of Regent Street suffers from a huge, haphazard, piecemeal rebuilding, in which architects, builders, contractors, and, one might think from a glance at the street as it is today, enthusiastic and semi-inspired amateurs, were given a free run. Sir Reginald rightly deplores that it was "a very great pity that the Crown did not have the courage of its convictions and deal with the whole of Regent Street as it had dealt with the Quadrant instead of leaving it open to miscellaneous design."

Regent Street was rebuilt when prices were at their highest, and consequently all rents went up. The new "economic" ground rents which the Commissioners have demanded are so high that the Town Clerk of the Westminster City Council wrote to *The Times* on July 26, 1932, as follows: "I am directed to state that, at the valuation of 1930, all premises in Regent Street were assessed on the basis of the estimated value of the floor area and not on the actual rents paid, which the Assessment Committee considered were generally higher than the true value of the premises and not likely to be maintained. It may be added that the Assessment Committee are most anxious to do all that is possible to encourage the letting of the vacant premises in Regent Street, but they cannot take a course which would be a flagrant non-compliance with the law and result in gross unfairness to other ratepayers in the city." These exorbitantly high rents have been maintained by the Commissioners in spite of the efforts of the lessees to have them reduced, and the result is that the new street, besides being a jumble of hideousness, has the beginnings of a derelict economically.

A detailed tour of every building in Regent Street reveals the fact that there are no fewer than 90 vacant office premises in addition to 30 completely vacant floors. It would be taking a reasonable average to say that each floor would accommodate four separate offices (some, of course, would hold a great many more), and this would bring the number of vacant premises to over 200. There are also nine empty shops, three of which include the entire building. Of course times are bad, and every street has its empty houses and floors. Bad times and the Commissioners' high rents make it impossible to fill Regent Street. Why on earth should anyone suppose that bad times and similar rents will fill a commercialized Carlton House Terrace?

So much for the Commissioners' treatment of Regent Street, the centre of Nash's great town-planning scheme. What about the two ends, Regent's Park and the Mall? For the moment Regent's Park seems safe, especially as last year the leases of two houses for 32 years were sold in York Terrace. But then so, just over a year ago, was the 16-year "strictly residential" lease of No. Three Carlton Gardens sold. And now Carlton House Terrace and the Mall are in deadly danger. No. Four Carlton Gardens is down, and Messrs. Pinchin Johnson are in process of building their new offices on the site. Sir Reginald, in his letters to *The Times*, would try to pretend that the building is invisible from the Mall. Actually it is 40 ft. higher than No. Three Carlton Gardens, which stands between it and the Mall, and it juts out over the area on the Garden side, so that the three top stories and the west side of this Portland stone building do directly overlook the Mall. And by reason of the space made by the Gardens the whole of the west side of the building will be perfectly visible from the Mall, and anyone who goes down that avenue now can see the red iron girders of the lower floors as plain as plain can be.

In *Memoirs of an Architect* Sir Reginald writes that "the responsibility of settling what was to be done with the Quadrant seemed to me a very serious matter. Evidence was taken from various witnesses, both architects and tradesmen, and we sent in our report with recommendations as to general treatment. The problem was to alter Shaw's design without destroying it."

This seems very applicable to the Carlton Gardens case. The responsibility of what was going to happen to Carlton House Terrace does not seem to have been considered very seriously by anybody until No. Four Carlton Gardens had been pulled down and a 99-years' lease granted to Messrs. Pinchin Johnson, and only then because there was a public outcry. It is true that Sir Reginald, finding himself architect for the one new building, prepared a design for the whole site, but this design has not been officially authorized by the Commissioners, who have gone so far as to disclaim it by saying that there is no project at present for the rebuilding of the whole Terrace. If evidence had been taken from architects and residents, the latter presumably taking the place of the tradesmen, the present abominable muddle would not have arisen. And presumably some future architect will find himself confronted with the problem of Sir Reginald's design, and when Carlton House Terrace is rebuilt will have to wrestle with an equally impossible conundrum as that which Sir Reginald deplores in the Quadrant—that is, one building which has to be incorporated in a design for a whole layout. Such is the policy of the Commissioners of Crown Lands.

It is 103 years since the Crown Lands Act was passed. During this period patchwork and muddle have been the methods of the Commission, vandalism and small money-grubbing its policy. The nation's property has been torn down for the sake of a few extra thousands a year, and æsthetic values have been totally sacrificed to economic values. Regent Street has gone. Public opinion must see to it that the next piece of Crown property to go shall be the Crown Lands Commission itself.

M. I. BATTEN

A Tribute to Wren

A Commemorative Service for Sir Christopher Wren was held in the Chapel of the College of William and Mary in Williamsburg, Virginia, on October 20, simultaneous with that at St. Paul's Cathedral. The collection, mainly contributed by students of the College, has just been received by the Wren Society with great appreciation of this indication of the sympathy of many on that side of the water for the purposes of the Society.

The College claims to be the only American building from the designs of Sir Christopher Wren. It was so attributed in 1721 by Hugh Jones, Professor of Mathematics. In view of Queen Mary II's interest in the foundation, the support of the Archbishop of Canterbury, and a semi-official character it seems likely that a Key-design may have been made by Wren and sent out, though no actual drawing has so far been traced.

The College was burnt but has been restored on the original lines after the most painstaking study, Messrs. Perry, Shaw and Hepbourn, of Boston and Williamsburg, being the architects.

R.A. Exhibition

The Winter Exhibition, 1933, of the Royal Academy of Arts, Burlington House, W.1, will remain open from Saturday next, January 7, until Saturday, March 11, between the hours of 10 a.m. to 6 p.m.

British Industries Fair

The nineteenth British Industries Fair, which opens at Olympia and White City in London and Castle Bromwich, Birmingham, on February 20, will be larger and more varied than any of its predecessors. According to Lt.-Col. D. J. Colville, M.P., the space required by exhibitors is twenty per cent. larger than that engaged at the last Fair. Such has been the demand for space, both in London and Birmingham, that additional buildings have been necessary.

Change of Address

Mr. David Evelyn Nye, A.I.A.A., architect, has removed his offices to Pereira House, Tufton Street, Westminster, S.W.1. Telephone No.: Victoria 6145.

OBITUARY

A. W. S. Cross

It is with deep regret that we record the death of Mr. Alfred William Stephens Cross, M.A. (CANTAB.), which occurred last week in his 73rd year.

Born in 1860, he received his architectural education at King's College, London, and the National Art Training School, now the Royal College of Arts, South Kensington, and was articled to Alfred Cross, of Hastings and London. He commenced private practice in the seaside town in 1885.

Mr. Cross acted as professional adviser and assessor in many competitions, and served on the Council and various committees of the R.I.B.A. Among the large number of buildings for which he was responsible were the following:

Municipal School of Technology, Manchester; the Town Hall, Shoreditch; additions to St. John's College, Cambridge; Memorial Laboratories, Aberystwyth University College; Merchants Venturers' Technical College, Bristol; public baths at Dulwich, Camberwell, Hampstead, Wandsworth, Walthamstow, Lincoln, Newcastle-on-Tyne; schools at Finchley, Poplar, Hampstead, Cricklewood, Kentish Town, Hendon, and New Barnet; Congregational Churches and schools at Harlesden and West Hampstead; and working men's clubs and houses in London and the provinces. Some of the above-mentioned work was carried out in collaboration with his son, K. M. B. Cross, M.A., F.R.I.B.A.

His publications included *A History of Architecture*; *Rome in the Augustan Age*; *The Crowning Quality of Architecture*; and *Practical Notes for Architectural Draughtsmen* (series I in collaboration with Alan E. Munby, F.R.I.B.A.; series II and III with K. M. B. Cross).

Charles Girault

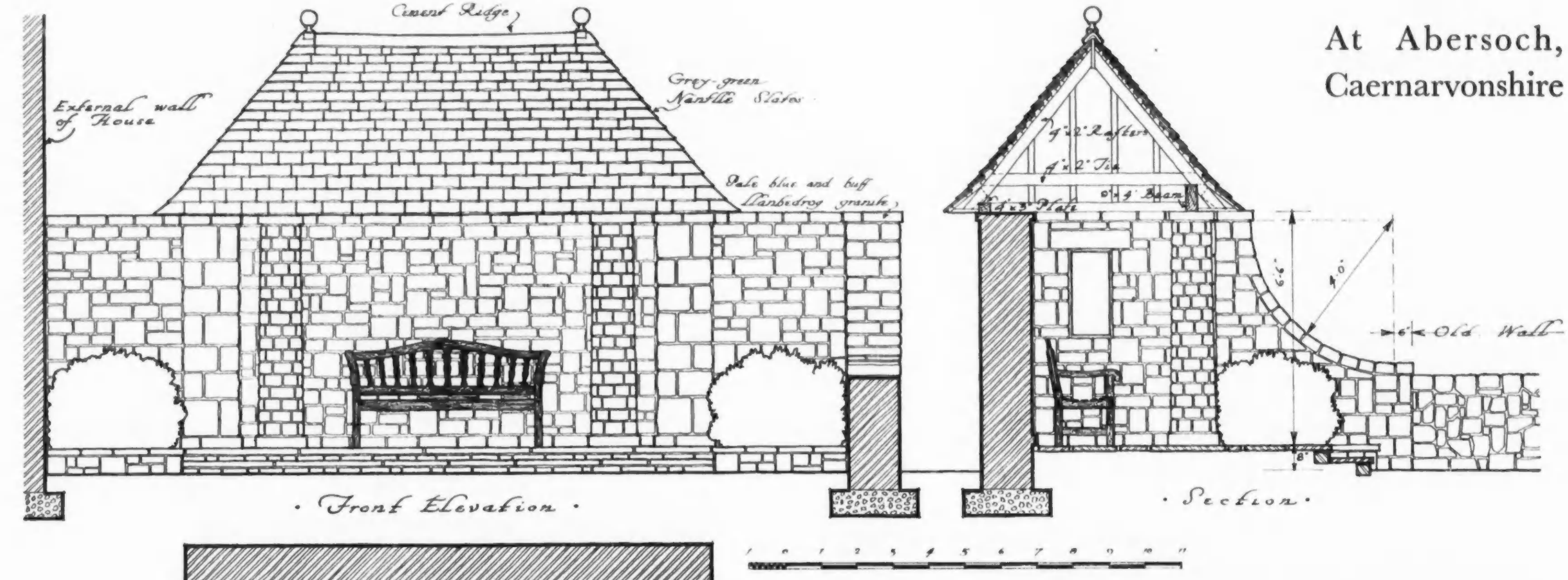
M. Charles Girault, the French architect, has died at the age of 82. He designed the Petit Palais in Paris, and many other buildings throughout France.

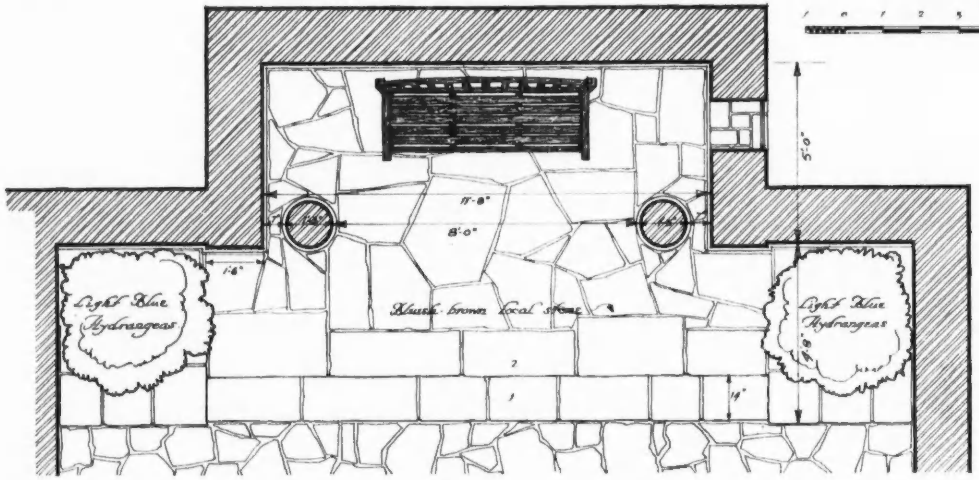
Architect's Will

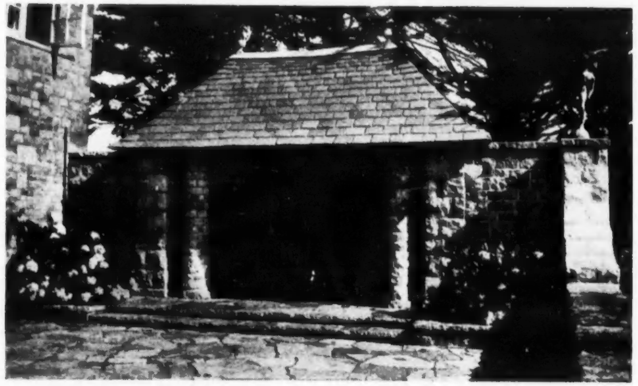
Alderman Thomas A. E. Buttery, of High Street, Morley, retired architect and surveyor, who died on October 16, left £27,432 12s. 1d. (net personalty £24,141 9s.).

TWO GARDEN PAVILIONS: DESIGNED BY MINOPRIO AND SPENCELY

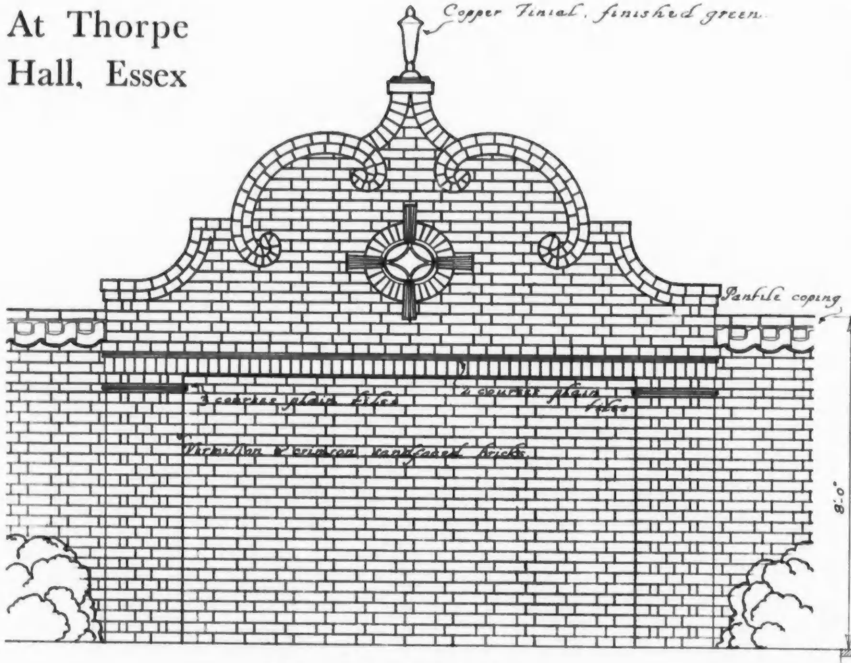
At Abersoch, Caernarvonshire


Cement Ridge
Grey-green Nantlle Slates
External wall of House
Pale blue and buff Llanbedrog granite
· Front Elevation ·
4"×2" Rafters
4"×2" Tie
6"×4" Beam
4"×3" Plate
6'-6"
4'-0"
6"
Old Wall
8"
· Section ·
1 0 1 2 3 4 5 6 7 8 9 10 11

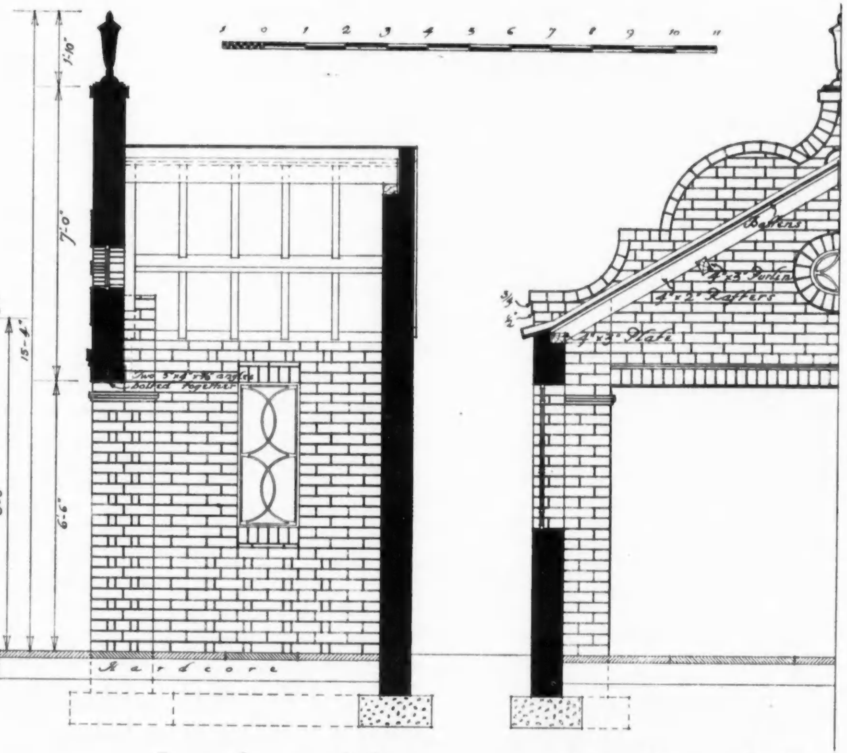

5'-0"
11'-8"
8'-0"
1'-6"
Light Blue Hydrangeas
Bluish brown local stone
Light Blue Hydrangeas
4'-8"
14"
2
1



At Thorpe Hall, Essex

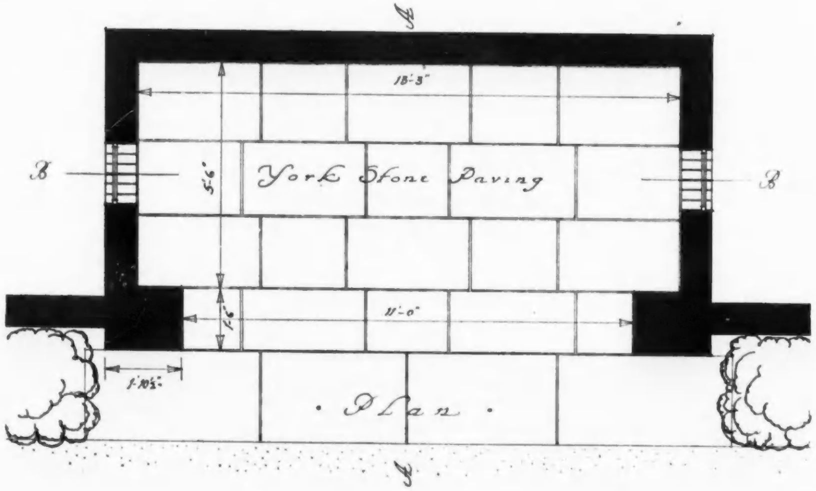

Copper Finial, finished green.
Pantile coping
3 courses plain tiles
2 courses plain tiles
Vermilion & crimson sandfaced bricks
15'-4"
8'-0"

Front Elevation

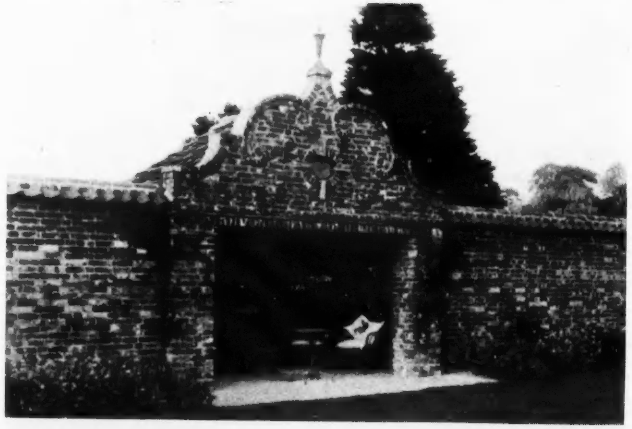

1 0 1 2 3 4 5 6 7 8 9 10 11
1'-10"
7'-0"
6'-6"
Two 3"x2"x¼" angles bolted together
Hardcore
Battens
4"x3" Purlin
4"x2" Rafters
4"x3" Plate
¾"
½"

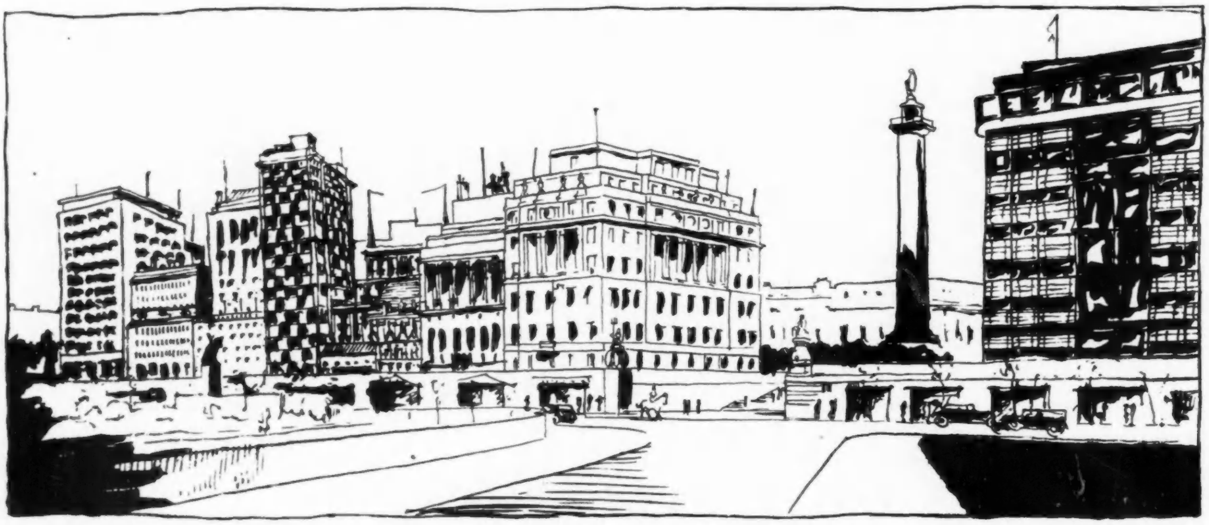
· Section A-A ·

· Section B-B ·


A
A
B
B
18'-3"
5'-6"
1'-6"
11'-0"
1'-10½"
York Stone Paving

· Plan ·





John J. Blower, in a letter on this page, suggests that a scheme for Carlton House Terrace something after the lines of the above sketch would be more likely to satisfy people. It has, he says, what one might call a more "general" appearance and is more in keeping with our London streets and our own city style.

LETTERS FROM READERS

Carlton House Terrace

SIR,—I am so sorry that nobody likes the alterations and additions to Carlton House Terrace that Sir Reginald Blomfield has so kindly designed for the Commissioners of Crown Lands. I think it would be very beautiful only perhaps too regular. Don't you think something after the lines of the enclosed sketch would be more likely to satisfy people. It has what you might call a more "general" appearance and is more in keeping with the rest of our London streets and our own city style. After all we have to cater for everybody's likes and dislikes nowadays as it is a democratic age and there is no accounting for tastes anyway, which is what I always say, so perhaps if you published the enclosed sketch of my scheme for Carlton House Terrace, they might stop writing letters.

JOHN J. BLOWER

SIR,—It would appear that your views and most of your correspondents' views on Carlton House Terrace are biased, and I consider this matter should be treated in an absolutely unbiased manner.

Are you really serious in the matter, especially when one of your titled correspondents blames the inferior paint as one of the reasons for the deterioration of the property? The best paint in the world will not hold a building together, nor prevent inferior stucco from cracking or crumbling. This complaint, if taken seriously, shows up the poorness of the construction and design.

It seems farcical to stand up for a horrible stucco-faced building which has to be patched up from time to time, and painted periodically to uphold it, and yet to decry the introduction of the well-designed buildings proposed to be faced with Portland stone.

Another of your titled correspondents, who is interested in the Protection of Ancient Buildings, mentions old Regent Street buildings as eighteenth-century construction. These were built in the nineteenth century. You also have the Secretary for the Protection of Ancient Buildings giving his views.

Why these buildings should come under the category of ancient buildings is beyond the average man's comprehension, as these and the buildings under discussion have no historical or antiquarian value.

Why do you presume that the Commissioners of Crown Lands and their advisers have not arranged a scheme for the ultimate rebuilding of Carlton House Terrace and Carlton Gardens in one proportionate block?

Although I do not know Sir Reginald Blomfield, I know the buildings he has designed have not only the merits of good lines, but have also, what is more important in these days, the merits of good workmanship and suitable materials, and I am glad at least that no freak architect or designer has been let loose on the designs for the proposed new buildings.

W. H. DARK

SIR,—On page 804 of your issue for December 21, your special representative for Parliamentary affairs says, with reference to Number 4 Carlton Gardens and the Commissioners of Crown Lands :—

"The Office of Works has never been consulted about Number 4 Carlton Gardens, and Members of Parliament take the view that there should be an authoritative statement from Mr. Ormsby-Gore, the First Commissioner."

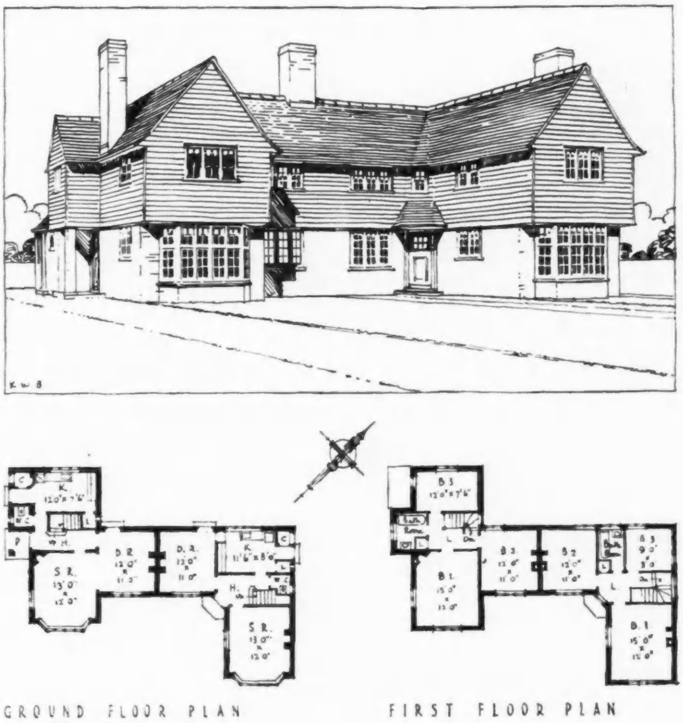
To the purist in style and expression this statement is not misleading; Mr. Ormsby-Gore is the First Commissioner of Works. To the layman, the statement implies that he is First Commissioner of Crown Lands. The essence of the present widespread agitation against the administration of the Crown Lands is that they should be transferred from the existing office to the enlightened control of men like Mr. Ormsby-Gore and Sir Lionel Earle, the Permanent Secretary of the Office of Works.

It is a grotesque anomaly that Nash's supreme example of town-planning should be administered by the gentlemen of the Woods and Forests, answered for in the House of Commons by the gentleman of Agriculture and Fisheries, and in the Lords by the gentleman of the Air. It can happen only rarely that aeronauts find the occasion to equip themselves with rakes and turf-cutters in order to pursue the nimble trout through the hazel-groves and oak-forests of Regent Street.

A. G. MACDONELL

Jerry-building

SIR,—It is a well-known fact that it is far easier to criticize another man's work than to do the job better oneself, and when Mr. Richard J. Jenkins asked me, in your issue for December 21,



A sketch of a pair of small houses by Kenneth W. Bland. In a letter on this page he suggests that in these days of conflicting views these houses might be considered by some to be architecturally correct, as well as attractive to the man in the street. Approximate cost at 1/- per cubic foot = £1,330. Materials: Ground floor walls and chimneys, hand-made sand-faced stocks, 11½″ hollow; first floor walls, 9″ thick, of brick-on-edge in "rat trap" bond, covered with feather-edge boarding, painted creamy-white or stained dark. Roof: Dark hand-made, sand-faced tiles. Windows: Wood frames, with either wood or standard steel sashes.

to give three designs for small houses (suitable for speculative building), both architecturally correct and attractive to the man in the street, his admission that the problem is enormous was only too true.

The subject of speculative house building may be viewed from three standpoints. In the first place there is that of the builders, whose only consideration, not unnaturally, is pounds, shillings and pence. Knowing that they readily can sell a certain type of house, they supply that type by the thousand. Secondly, there is the general public, provided for so long with houses of the type I illustrated in my previous letter, and who have become insensible to their ugliness because they have no standards by which to judge architecture. Lastly, there is the viewpoint of the architectural profession, presumably qualified to design the perfect house, but lying largely idle owing to its inability to persuade either the builders to supply anything better or the general public to demand it.

I feel confident that if simple, well-designed houses were built on a large scale, the general public would learn to appreciate their undoubted advantages, and that is why I welcome the work of "The Master Builders, Ltd.," described in your issue for November 23, as a good step in the right direction.

The design and production of the small house as a marketable commodity is a subject so vast that many entire numbers of THE ARCHITECTS' JOURNAL would be required to deal with it exhaustively, but possibly a few brief remarks here would not be out of place.

By considering where modern speculative building fails, perhaps it will be easier to see how Mr. Everyman's home might be improved.

Houses are strung out along roads, each plot being as narrow as possible, necessitating the adoption of a more or less stock plan. This plan is repeated indiscriminately for any site, without consideration of aspect, nature of site, possible views to be obtained, or any other circumstances that should be taken into account when planning a building. Every house is designed solely for the "front elevation," which is usually decked with a few facing bricks, ¾ in. boards (to the Olde English formula), and a dab of roughcasting in a manner calculated to attract—and which *does* attract—the prospective purchaser. These embellishments end abruptly on the front angles, and sides and backs of houses merely "come as they will," and are executed, in most cases, in inferior materials.

The improvement of this state of affairs is not to be achieved merely by designing a number of types of houses, no matter how pleasant, for so long as the practice of cutting up land into long strips with small road frontages continues, there is little likelihood that it will be possible to use the more suitable plans.

The problems of planning should be tackled immediately it is decided to develop a district for residential purposes, when roads, plots and the houses themselves should all be set out in proper relation to one another. The houses, especially in the case of smaller properties, should be designed with a view to the harmony of the general effect, rather than they should each shriek their own individuality. This is not news, I know, but it will bear repetition.

In answer to Mr. Jenkins, I enclose a sketch of a pair of small houses which I think, in these days of conflicting views, might be considered by some to be architecturally correct, and also attractive to the man in the street.

KENNETH W. BLAND

A House at Sanderstead

SIR,—I take strong exception to your note following the letter of Mr. Oliver Law, in THE ARCHITECTS' JOURNAL for December 21, relating to a house at Sanderstead designed by me.

The photograph, plans and note which you published, and for which you now apologise to Mr. Law, were furnished at your request.

Not knowing why this modest piece of building should receive notice in your paper, and not being a candidate for the honour, I wrote asking whether you were "pulling my leg."

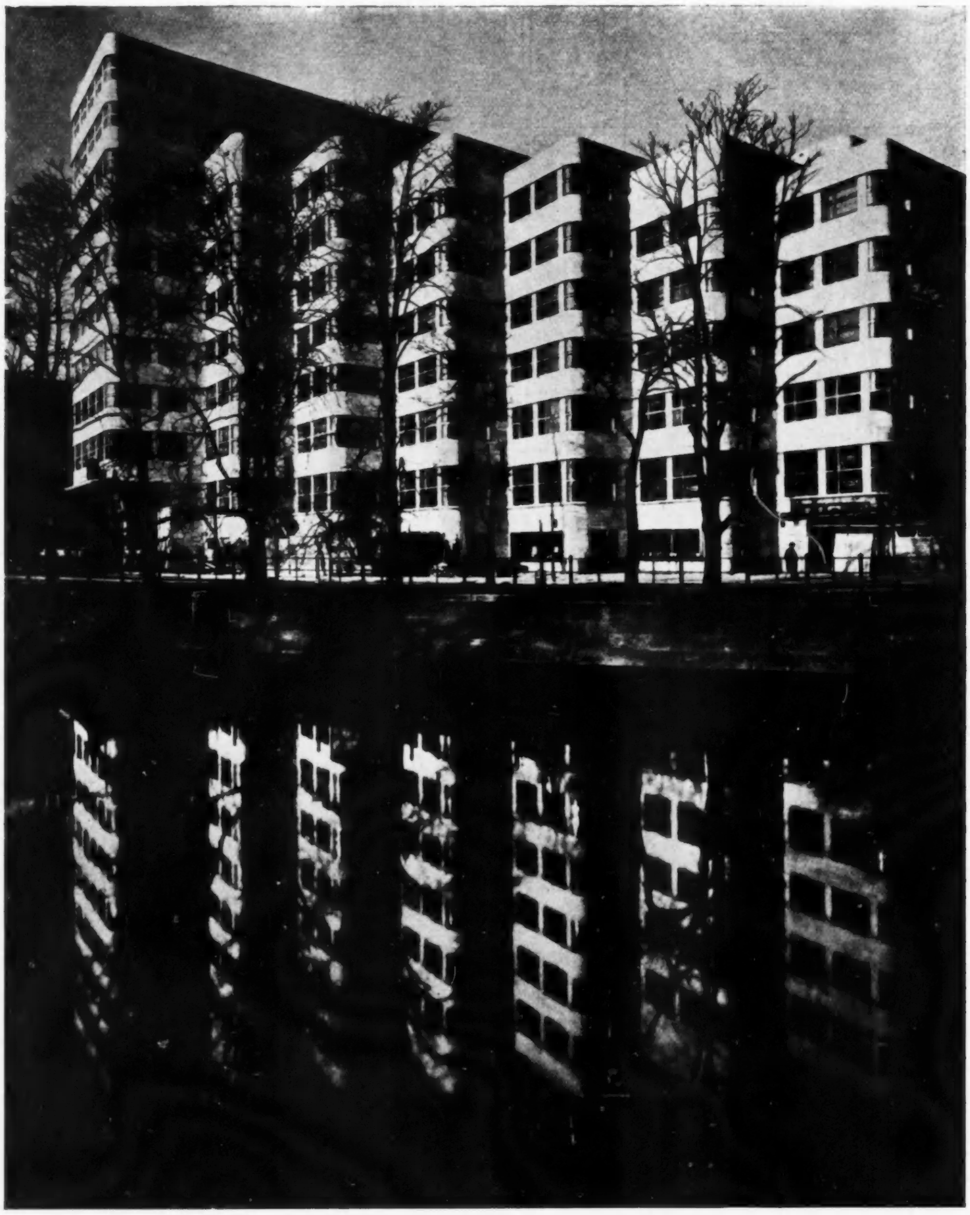
On being asked a second time, I sent you the material, which you published with the addition of my name under your editorial style, as I now learn, with "an ironical intention." To hold up to ridicule a private person who received public notice through your own action, is, as I submit, in bad taste.

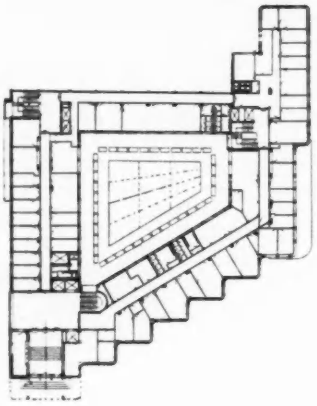
H. CARTER

[*We agree, and must therefore express our apologies to Mr. Carter. Actually, it was not the building which evoked the "ironical intention," but a passage in Mr. Carter's notes, which read: "The adventure of building without an architect might have been disastrous, and would have been less enjoyable, without the sympathetic co-operation and scrupulous dealing of the builder." For an architectural paper to receive such sentiments seemed to us too good a joke not to be shared with other architects, and it was in that spirit we printed them.*—ED., *A.J.*]

[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]

THE SHELL-MEX BUILDING, BERLIN:

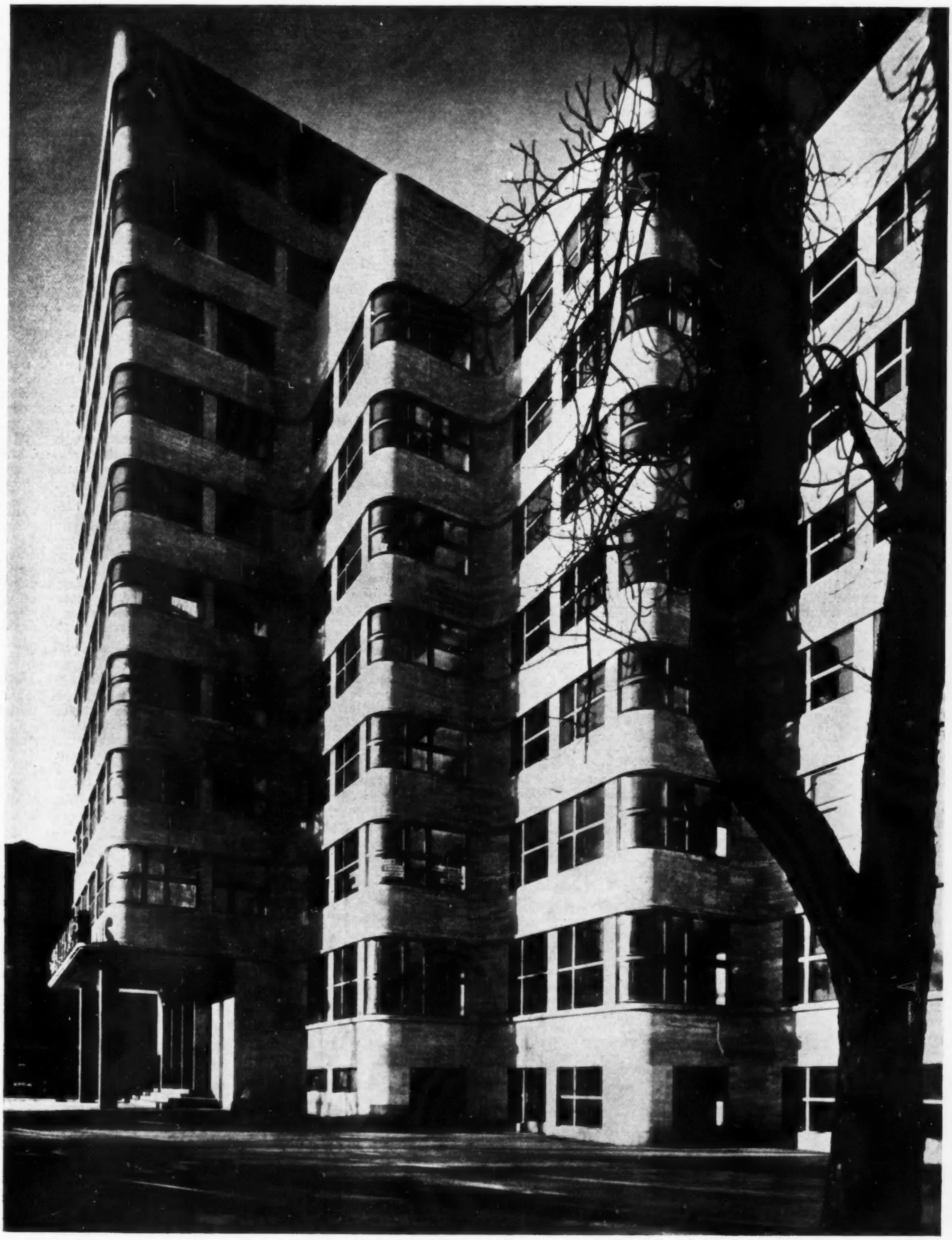




The plan of this building is dictated by the shape of the site, roughly a right-angled triangle, with a block of offices on each of its sides, and a single central area. The hypotenuse is treated as a series of receding planes, or set-backs, in order to provide a maximum amount of daylight in the offices, and incidentally an interesting external form. The walls are faced with thin slabs of Cannstadt travertine, laid like tiles without visible bond and swept round the curved angles of the receding bays on the principal façade. The elevational treatment is vigorous, and interest is derived from proportion and the intelligent use of material. There is no sign of the indulgence of personal decorative fancies.

Mr. Raymond Mortimer, in an article on the Shell buildings in London, Berlin and Hamburg in the current issue of *The Architectural Review*, from which the accompanying photographs and plan are reproduced, says: "The Shell House in Berlin is, in my opinion, the finest office building in the world. It is modern without being merely utilitarian, imaginative without being fanciful. Its only grave fault is the cut-away entrance."

DESIGNED BY PROFESSOR EMIL FAHRENKAMP



LAW REPORTS

QUESTION OF SINGLE PRIVATE DRAIN

Hills and another v. *Mayor, etc., of Aldershot.—Court of Appeal. Before Lords Justices Scrutton, Lawrence and Greer.*

THIS was an appeal by the applicants, who were the executors of W. T. Hills, deceased, the owners of three houses in Edward Street, Aldershot, from a decision of the Aldershot magistrates, who held that the applicants were liable to pay a sum of £73 to the Corporation of Aldershot in respect of their share of the cost of repairing certain drainage pipes.

A single conduit or pipe took the drainage of 15 houses, and of these the applicants owned three. The Corporation carried out certain repairs to pipes and sought to recover from the applicants the amount apportioned to them. The Aldershot magistrates held that the applicants were liable, and this decision a King's Bench Divisional Court affirmed.

Mr. Glen, for the applicants, argued that the pipe was a sewer vested in the local authority and not a single private drain within the meaning of Section 19 of the Public Health Act, 1890.

Mr. Moresby represented the Corporation, and argued that the decision arrived at was right in law.

The court allowed the appeal with costs.

Lord Justice Scrutton, in giving judgment, said this was a difficult case, and raised points of law which depended on the effect of numerous and contradictory decisions on the meaning of the Public Health Acts of 1875 and 1890. The question was when a pipe which conveyed sewage was a drain repairable by the owner, and when it was a sewer repairable by the local authority. If he had had a free hand to construe the statutes without reference to decided cases, he would probably have arrived at a different conclusion from that which he had with some difficulty reached. In that case the court was dealing with a length of pipe which had been held to be repairable by its owners as a private drain under the 1890 Act. But by the Act of 1875, once they got the drainage of two buildings into a drain it became a sewer repairable by the local authority. The Act of 1890 made an attempt to deal with the difficulties which arose in Section 19, and provided that the expression "drain" included a drain used for drainage of more than one building, though it appeared to be a sewer under the 1875 Act.

A decision of the House of Lords in the case of the Wood Green Urban District Council v. Joseph, appeared to decide that Section 19 did not prevent pipes carrying only sewage from different houses in the same ownership from being sewers, and that a line composed partly of a sewer under the 1875 Act and partly of a private drain under the 1890 Act could not, as a whole, be a private drain. That appeared to give an absurd result—viz., that a pipe on private land draining six houses in different ownership was a single private drain repairable by the owners, but that if the owner of number six, the house furthermost from the public sewer, also owned number five, the whole pipe would be a sewer repairable by the local authority. That absurdity might be either in the statutes, or if they were ambiguous, in the decisions on their meaning. It was, therefore, with regret that he took the view that the appeal must be allowed and the question in the special case answered by saying that the particular pipe in question was not a single private drain. The result was that the Corporation failed, except in so far as it had been admitted.

His lordship added that he regretted the result, as he thought the consequences of the decision were ridiculous, the thing recorded was the House of Lords' interpretations of the Act of Parliament. He was afraid it was hopeless to ask Parliament to deal with the matter, though the present legislation and the attempts at interpretation appeared to him to be a disgrace to the English Legislature.

Lords Justices Lawrence and Greer agreed.

BUILDING CONTRACT : ADJUDICATION BY ARCHITECT

H. M. Nowell, Ltd. v. *Kingston-upon-Hull Corporation, King's Bench Divisional Court. Before Justices Acton and Talbot.*

THIS case came before the Court on an appeal by Messrs. H. M. Nowell, Ltd., builders and contractors, of Bank Chambers, Stockton-on-Tees, from a judgment of Mr. S. R. C. Bosanquet, K.C., one of the Official Referees of the High Court, in an action they brought against the Kingston-upon-Hull Corporation to recover the sum of £4,896 in respect of extra work entailed in building for the Corporation 374 houses up to the level of the roadways.

The Corporation refused to pay on the ground that acting under the contract their architect had adjudicated upon the question and decided that the work charged for was covered by the contract.

The Contractors contended that there had been no valid adjudication, but when the matter came before the Official Referee he decided in favour of the Corporation and from that decision the Contractors now appealed.

Mr. W. T. Creswell appeared for the appellants, and Mr. W. H. Owen for the Corporation.

Mr. Creswell said the grounds of the appeal were that the Referee was wrong in limiting the inquiry to the question whether there had been an adjudication : in refusing to hear certain evidence by the Contractors, and in holding that there had been an adjudication. The contracts in question were entered into in 1929 and were lump sum contracts, and the sums involved were £81,470 for the Inglemire Lane and £55,224 for the Derringbank Farm Estates, and the sums now claimed were in respect of having to raise the houses to the levels of the roads made by the Corporation. The Contractors regarded this work as extras, but the Corporation alleged that the contracts being lump sum contracts, included this work. In some cases the houses had to be raised as much as 5 ft. 6 ins.

The Corporation alleged that the work had been done without a written order and that the claims were adjudicated upon by the architect and disallowed. He (Mr. Creswell) contended that there had never been a valid adjudication.

Without calling upon Counsel for the Corporation the Court dismissed the appeal.

Mr. Justice Acton in giving judgment said that the only question before the Official Referee was whether there had been a proper adjudication by the architect, Mr. Harvey. The contract provided that in all questions arising between the Corporation and the Contractors the decision of the architect should be final. It was true that a year before when the work was not complete Mr. Harvey had expressed the opinion that the extra digging was not outside the contract. When the work was completed the plaintiffs laid the whole matter before Mr. Harvey, who then decided that the plaintiffs were not entitled to any extra payment. The inquiry was one to which no exception could be taken, and seeing that the plaintiffs submitted their case to Mr. Harvey they could not say that he was not a fit and proper person to hold it. The Official Referee's decision on the matter was perfectly correct and the appeal failed and would be dismissed with costs.

Mr. Justice Talbot concurred.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

PARLIAMENT adjourned for the Christmas Recess on December 22, and will meet again on February 7.

Slum-clearance and Housing

Mr. Buchanan asked the Minister of Health if he would state the number of slum-clearance and re-housing schemes approved under the Housing and Slum Clearance Act, 1930, up to the most recent date at which such information was available ; the number of houses and tenements, respectively, completed, together with the number of persons removed from houses condemned ; and the number of persons for whom new houses or tenements had been provided under the 1930 Act up to the same date.

Sir Hilton Young said that up to November 30 last he had received resolutions declaring 580 areas in England and Wales to be clearance areas. 6,451 dwellings had then been completed. He was not able to say how many of these dwellings were houses, flats or tenements respectively. Up to September 30 last 23,829 persons had been removed from houses demolished or closed. The houses completed provide, according to the standard laid down by Section 37 of the Act, accommodation for 30,928 persons.

In reply to a question by Mr. Buchanan as to Scottish housing progress, Mr. Skelton, Under Secretary for Scotland, said that up to December 20 proposals had been approved by the Department of Health for Scotland for the provision of 13,765 houses with assistance under the Housing (Scotland) Act, 1930. At November 30, the latest date for which information was available, 3,950 houses, including 604 in tenements, had been completed and 6,983 houses, including 2,698 in tenements, were under construction. At September 30 24,329 persons had, in consequence of action taken under the Act, been removed from condemned houses.

Earl Haig Memorial Statue

Lt.-Col. Moore asked the First Commissioner of Works what was the present position with regard to the memorial statue to the late Field-Marshal Earl Haig, and at what date it was expected that the statue in question would be erected in public.

Mr. W. Ormsby-Gore said that the sculptor was now at work on the full-size clay figure. Under the terms of the contract, the memorial should be ready for erection in the summer of 1934.

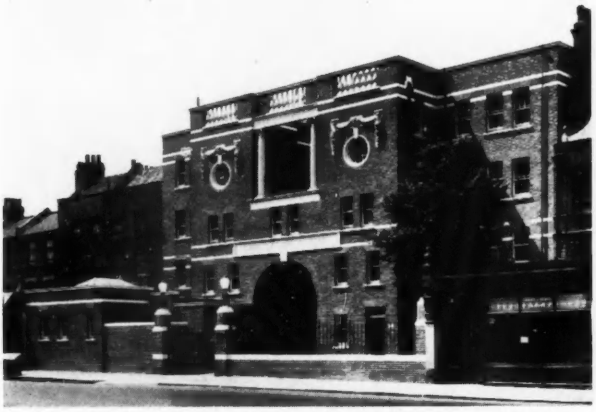
Subsidy for Cottages

R. N. writes : "*Is there any subsidy still available which would assist my client, a private person, to build cottages and, if so, under what conditions ?*"

There is no direct subsidy at present to private enterprise, but your reader would be well advised to communicate with the clerk of his local authority in case help in the form of a loan might be forthcoming under the Small Dwellings Acquisition Act. B. S. T.

Messrs. A. S. R. Ley and Son, chartered architects, of 214, Bishopsgate, E.C.2, and Messrs. J. R. Moore-Smith and Colbeck, chartered architects, of 14 Union Court, Old Broad Street, having amalgamated now carry on their combined practices under the style of Ley, Colbeck and Partners, at 214 Bishopsgate, E.C.2. Telephone numbers : Bishopsgate 2041–2.

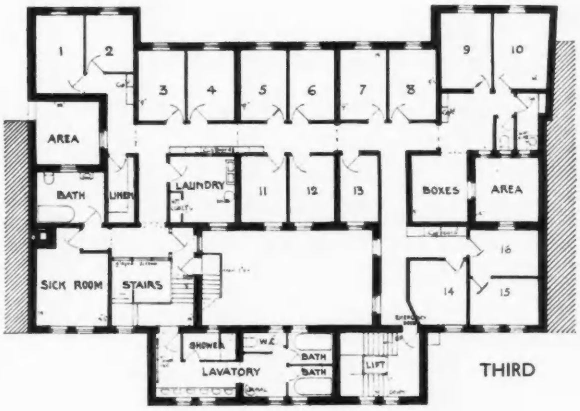
MISSIONARY TRAINING HOME : BY PERCY K. ALLEN



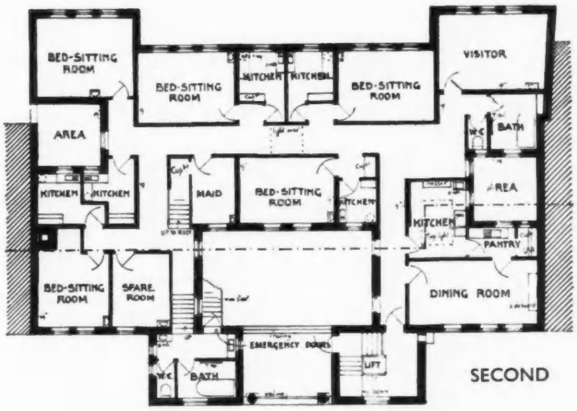
This building for the China Inland Mission occupies the site of Inglesby House, Newington Green, London. On its north side was a much smaller house, with a roadway between. In planning for the new building, the purpose of which is a missionary training home for men and a residence for retired missionaries, there was need for the roadway, in order to reach the mission offices and home, which are in the rear, and at the same time provide separate access for a series of flats. The training home has been placed on the south side of the roadway, and the flats on the north.

In the basement is the men's gymnasium (under the dining room and library), with their lavatory; and the oil-heating plant. The north side basement is occupied by storerooms, etc. The accommodation shown on the ground, first and second floor plans are self explanatory. The third floor is divided into a number of bed-sitting rooms, each with its own kitchenette, for retired lady missionaries.

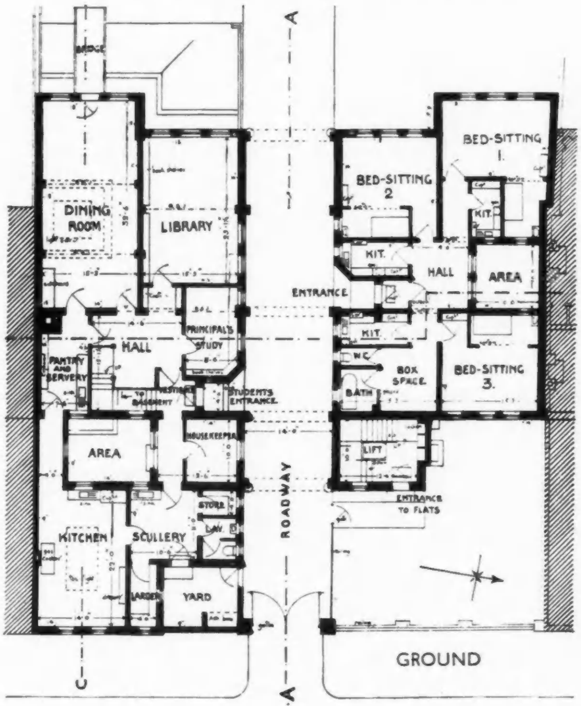
Externally, rubber brick arches and artificial stone dressings have been relied upon for decoration. Internally, the patent fireproof floors are covered with compressed cork, and the stairs are in Hopton wood marble-stuc.


1
2
3
4
5
6
7
8
9
10
AREA
BATH
LINEN
LAUNDRY
11
12
13
BOXES
AREA
16
SICK ROOM
STAIRS
14
15
SHOWER
W.C.
BATH
BATH
LAVATORY
LIFT

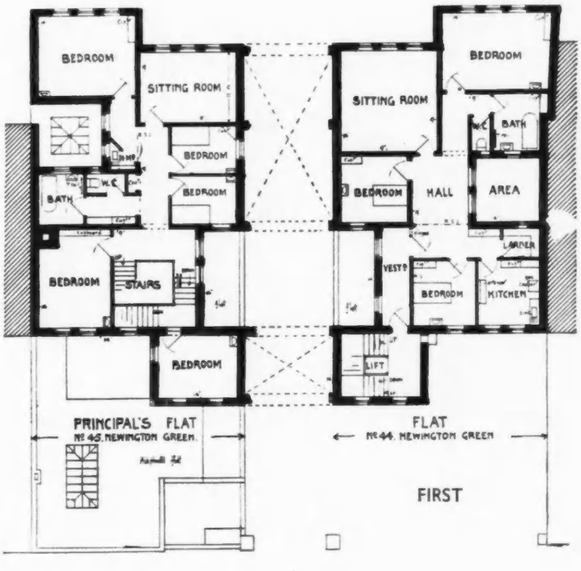
THIRD


BED-SITTING ROOM
BED-SITTING ROOM
KITCHEN
KITCHEN
BED-SITTING ROOM
VISITOR
AREA
W.C.
BATH
KITCHEN
KITCHEN
MAID
BED-SITTING ROOM
KITCHEN
AREA
KITCHEN
PANTRY
BED-SITTING ROOM
SPARE ROOM
DINING ROOM
EMERGENCY DOORS
W.C.
BATH
LIFT

SECOND


A
BRIDGE
DINING ROOM
LIBRARY
BED-SITTING 1
BED-SITTING 2
KIT.
KIT.
HALL
AREA
ENTRANCE
PRINCIPAL'S STUDY
HALL
PANTRY AND SERVERY
KIT.
W.C.
BOX SPACE
BED-SITTING 3.
BATH
TO BASEMENT
STUDENTS ENTRANCE
AREA
HOUSEKEEPER
LIFT
ROADWAY
ENTRANCE TO FLATS
STORE
LAV.
KITCHEN
SCULLERY
LARDER
YARD
C
A

GROUND


BEDROOM
SITTING ROOM
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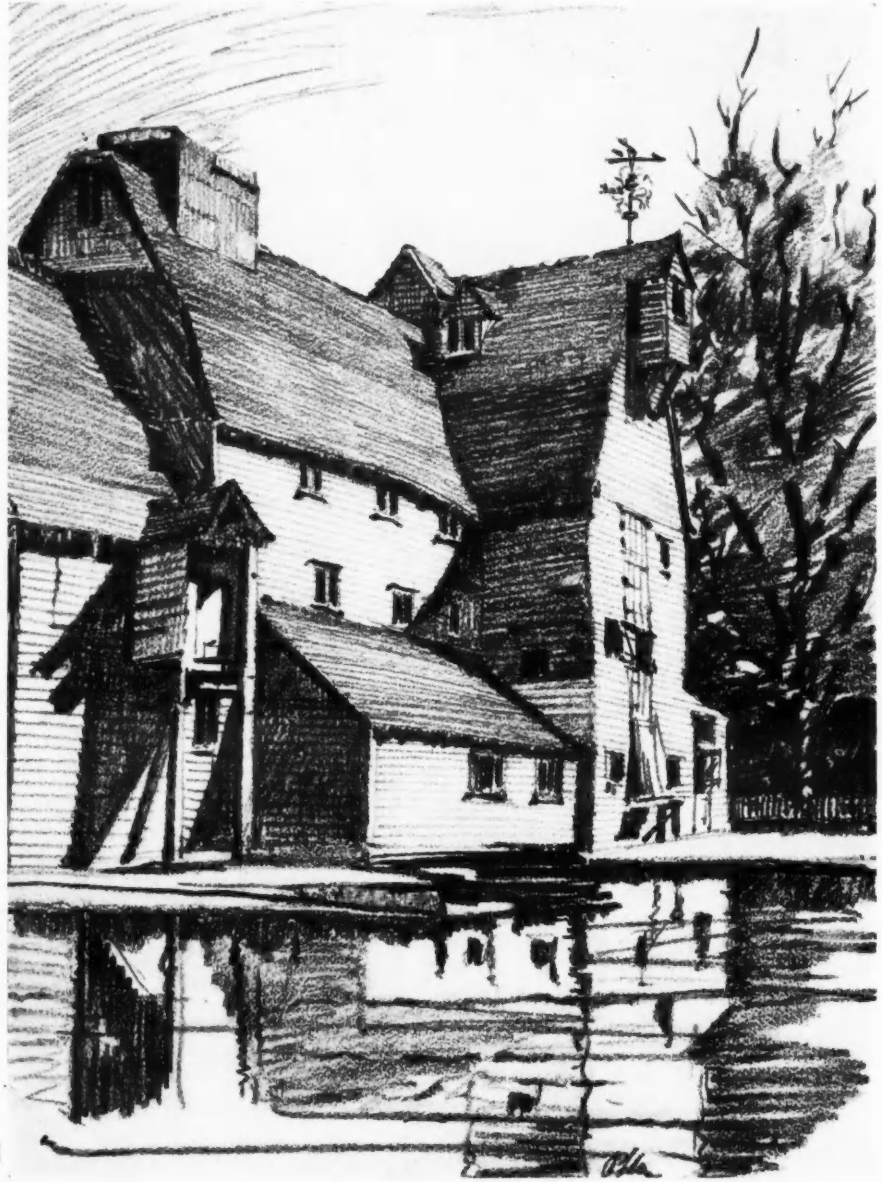
W.C.
BATH
BATH
W.C.
BEDROOM
HALL
AREA
BEDROOM
STAIRS
VEST.
BEDROOM
KITCHEN
LARDER
BEDROOM
LIFT
PRINCIPAL'S FLAT
No. 45, NEWINGTON GREEN.
FLAT
No. 44, NEWINGTON GREEN

FIRST

SCALE = 0 5 10 20 30 40 50 FEET

THE SKETCH CLUB • SIXTIETH SESSION • DRAWINGS BY P. J. WESTWOOD



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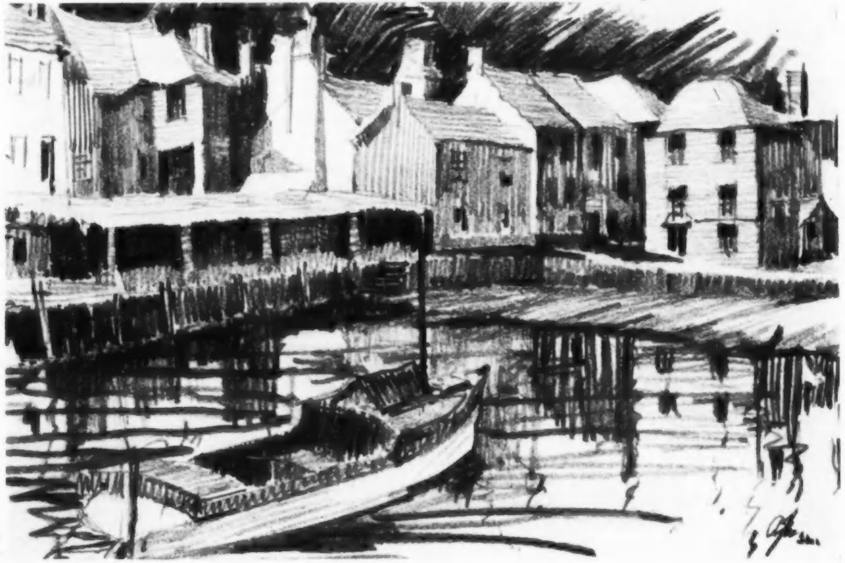

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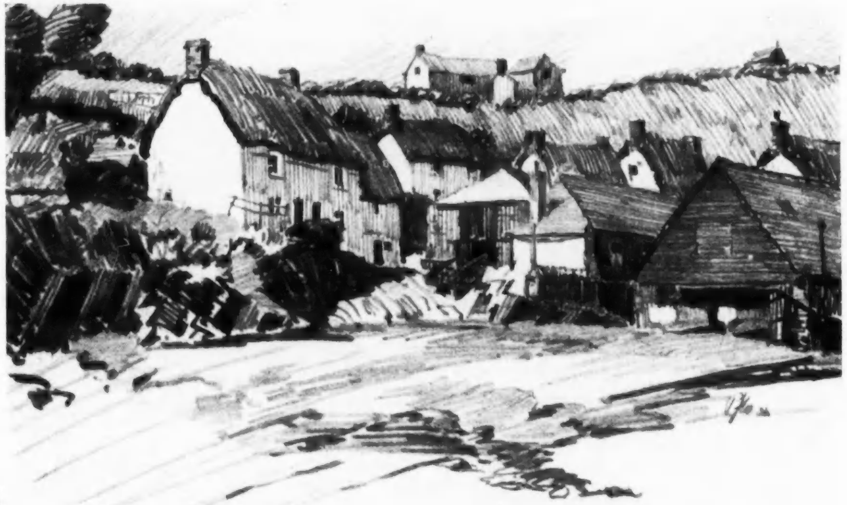
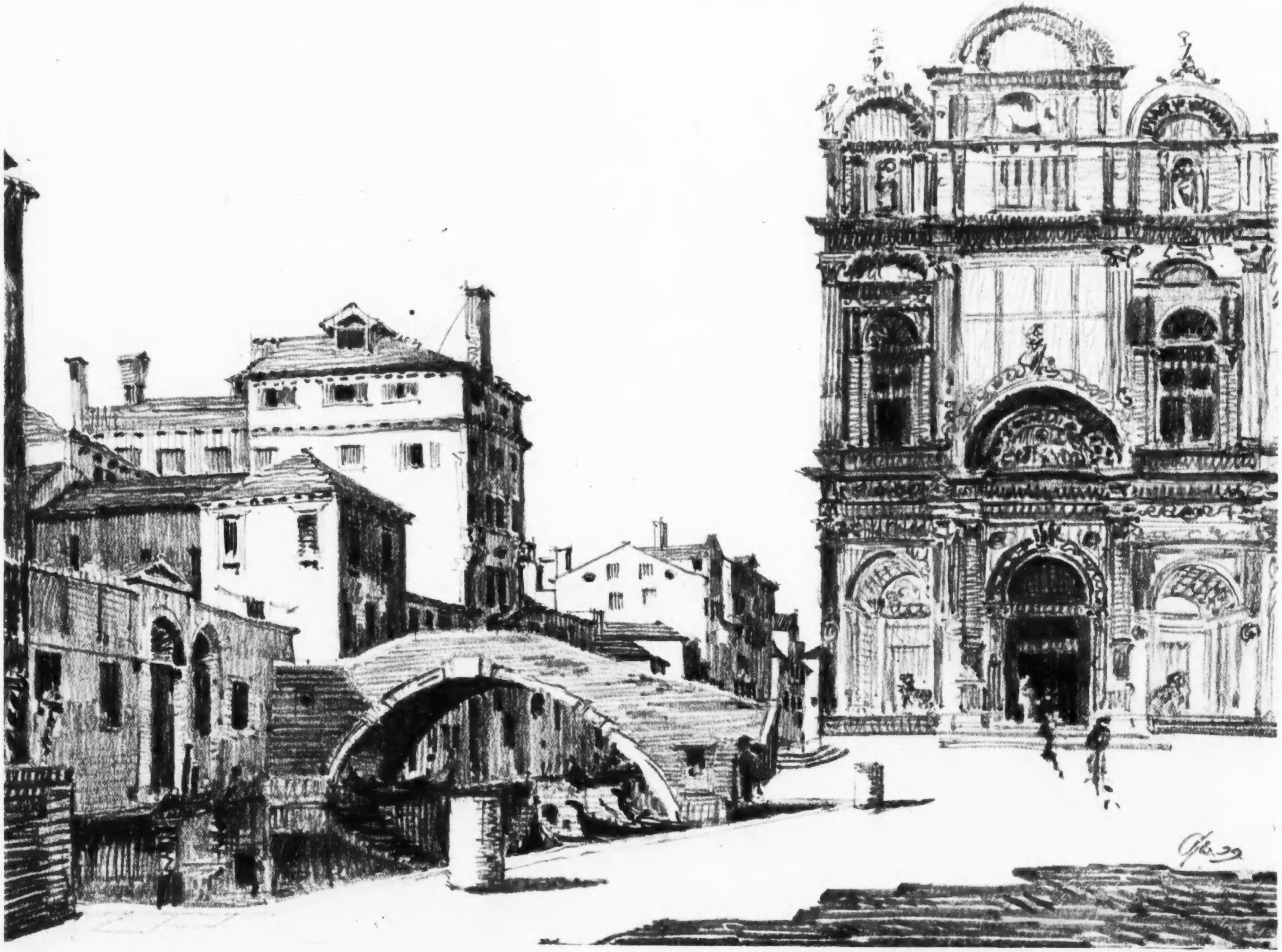


3

1. *Newark Mill, Surrey*
2. *Polperro, Cornwall*
3. *Cadgwith, Cornwall*
4. *Venice*



4

LITERATURE

The Devon Smithy, Whimple.

DECORATIVE WROUGHT-IRONWORK

The Din of a Smithy. By J. A. R. Stevenson. London: Chapman and Hall. Price 15s. net.

THE Rt. Hon. Walter Runciman, in his foreword, rightly states that this is a book full of vitality, written by a man who has been happy enough to find his vocation in a field where he has few rivals. The tone of the book from beginning to end is happy. There is the happiness of the artist and of the young man who has done a thing well and knows that he has done it well. He can also congratulate himself in these days of mass production on having demonstrated the virtues of a small unit.

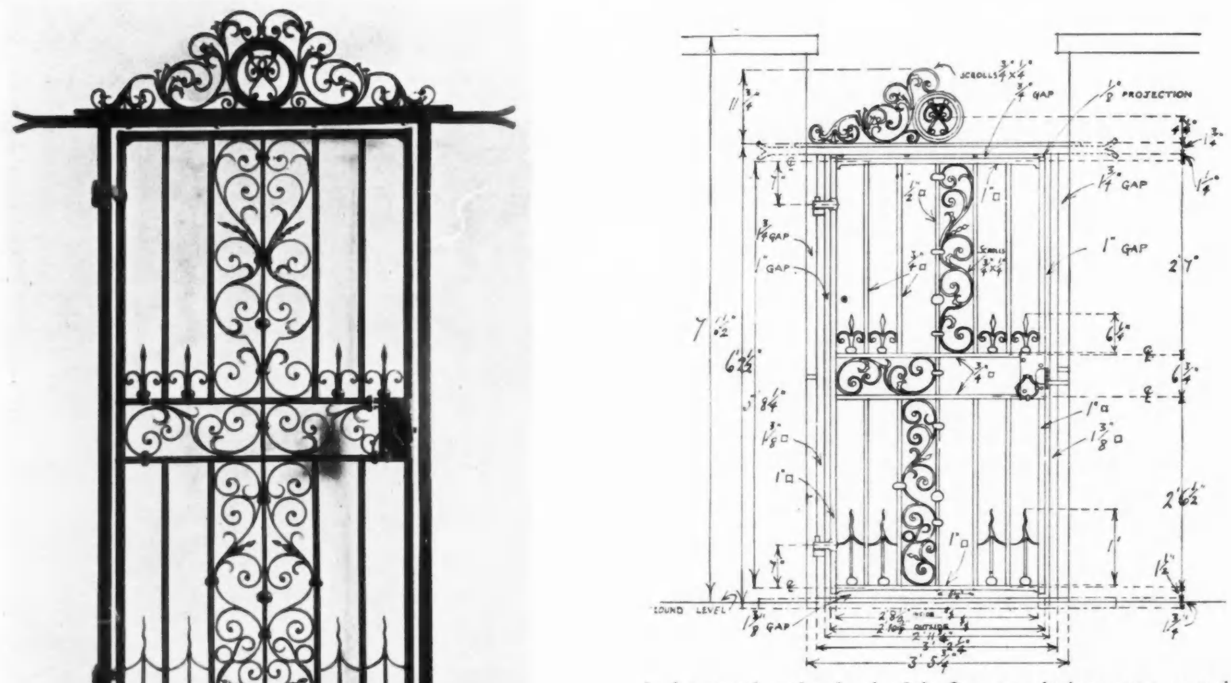
Mr. Runciman continues:

> All over the world there has been a tendency, for at least a generation, to imagine that all our economic ills can be cured by cartels, by combines, and by standardization. The larger the organization the more it was commended: the giant was admired for his size. In no one of the great industries was this more marked than in the manufacture and use of iron. It is in this very region of iron that J. A. R. Stevenson challenges so many of our cherished conceptions. He regards ironwork as an art, the giant of mass production is to him an ogre, and he sends from a smithy in Devon a challenge to all the mob who take their philosophy from America. When he left Cambridge, he might successfully have gone into one of our great iron and steel firms and have been engaged at a table or in a laboratory for eleven months in the year. . . . Instead, he has established himself down at Whimple as a maker and an artist. It is as an artist he writes. . . .

Mr. Stevenson, in the first chapter, tells us of the jobs he performed after leaving Harrow in 1919 until he became—to use his own words—a specialist in the designing and making of decorative wrought-ironwork.

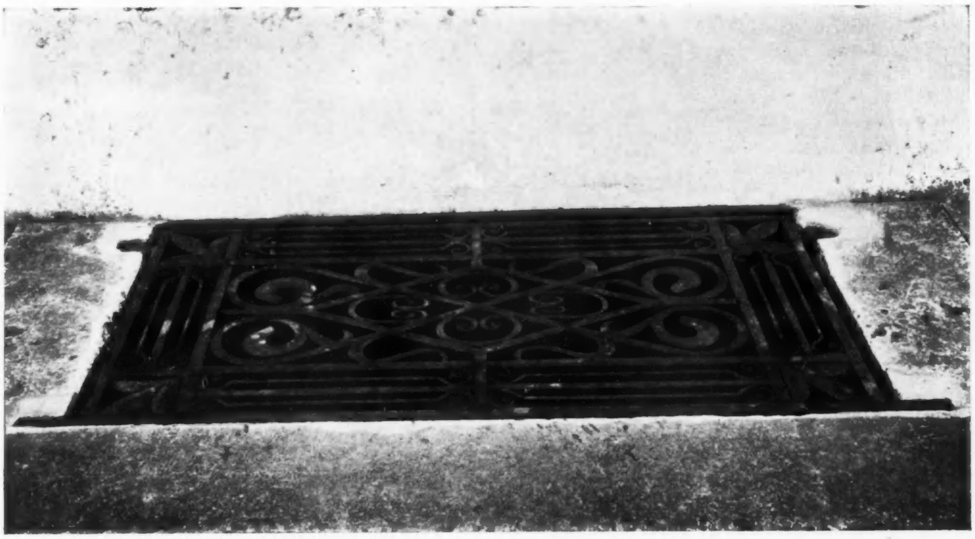
> I have held a Short Service Commission in the Royal Air Force, and have worked at a bench in an aircraft factory. For a time I was a free-lance journalist; then I turned reporter on a London daily newspaper. After this, in 1925, I went to Canada in a tramp-ship with the idea of finding a job of work. But I didn't find a job. In 1926, I suddenly became anxious. I was twenty-five. . . . Now I would settle down, happy thought, in New Zealand and be a farmer. Waiting for the ship which was to take me there I employed the spare time in apprenticing myself to the blacksmith at Payhembury, where I learned to shoe horses. I thought this would be useful to me in the new country to which I was going. The way in which exciting things have their happening is casual; an inclination towards learning to shoe horses and out of this came the Devon Smithy.

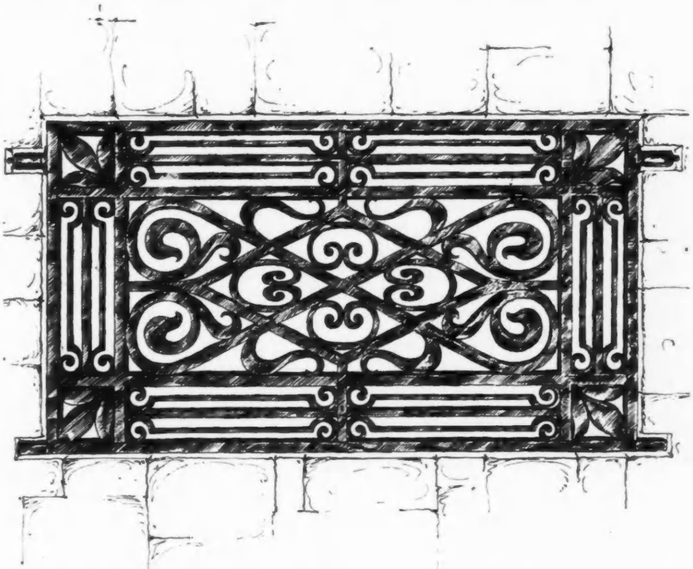
The story of how the author obtained the order for his first gate, illustrations



A photograph and a sketch of the first wrought-iron gate executed by J. A. R. Stevenson. It is fixed in the wall of the kitchen garden of a residence at Culver. The gate is fully described in the review of *The Din of a Smithy* on this page.

A WROUGHT-IRON GRILLE FOR THE PRINCE OF WALES





The grille, made last year at the Devon Smithy, for the Sunningdale residence of the Prince of Wales. The rectangular frame was welded together into one piece, the scroll-ended diagonals being halved and riveted where they intersected with the frame and with one another. Excepting the small scrolls the piece was constructed from square iron of various sections.

of which are reproduced herewith, is a typical example of how important things often happen in a most unimportant way.

One August morning in 1926 someone came to the smithy and remarked to me that there was a fine wrought-iron gate outside the office of Mr. Snow in Cathedral Close, Exeter. We were not very busy that morning. We had made a few shoes and I had sharpened a pick which had been brought in to me on the previous evening just before we shut down for the night. Apart from the need to make a few more shoes for stock it seemed a shame to be indoors on a lovely morning like this : so I put on my hat and jumped on my motor-bicycle and went off to see this gate for myself, leaving Harry Potter to mind the forge and to sit at the receipt of custom. Arrived at Exeter I paid a call on the owner of the gate and he very kindly gave me permission to look at it and to make a sketch of it. As I was leaving he told me that one of his clients, Mr. Atherton Byrom, was anxious to find someone to make a copy of it on a smaller scale, to be fixed in the wall of the kitchen garden at Culver. I wrote to Mr. Byrom and he wrote to me and, I think, came to see me : and in one way and another that is how I got the order for my first gate.

The whole gate needed to be re-designed as the opening in the wall, which it was to fill, was narrow. It was impressed on me that I must keep the same effect at all costs. This meant that I should have to be very careful about the design of the "overthrow" which is the first part of a gate to catch the eye.

I enjoyed making that gate : coming my way it had been a great piece of luck. It put Harry and me on our mettle as we had never contemplated anything so ambitious as this, with the result that I had to make many discoveries for myself when we sat to work on it.

For the outer frame we picked good straight bars of 1½ in. by 1½ in. iron. The two verticals are spilled, top and bottom, where they pass through the top and bottom horizontals. These holes in the horizontals were punched whilst the bars were hot—a usual practice, though I am not very keen on doing this nowadays.

The overthrow was made from ¾ in. by ¼ in. flat iron, the scrolls being knob-ended and welded to their neighbours. Each spray on either side of the monogram is one continuous length of iron without a rivet anywhere in the piece. For the moving part of the gate we used 1 in. by 1 in. iron for the frame and ¾ in. by ¾ in. iron for the intermediate verticles and for the centre-horizontals. As in the overthrow all the scroll-work for the panels was made from ¾ in. by ¼ in., each piece of scroll-work being continuous and without rivets.

It was a week or two before Harry and I could get to work on it and several weeks more before we got it finished. But it was completed at last and painted : and I felt mighty proud and happy when I saw it fixed and working smoothly at Culver. Then I went back to the Smithy : there was a fat cheque in my trouser-pocket and shoeing had entirely lost its charm.

Books reviewed in these columns may be ordered through The Architectural Press, 9 Queen Anne's Gate, S.W.1.

TRADE NOTES

Every length of steel conduit manufactured by the members of the Association of Steel Conduit Manufacturers will in future bear the registered trade mark of the Association. This distinctive mark, an illustration of which appears on this page, has been adopted to serve as a guarantee of sound quality—of conduit which is made to the most exacting specification for material and workmanship.

BRITISH MANUFACTURE
APPROVED & CERTIFIED
A.S.C.M.
BRITISH STANDARD

A manufacturer is only permitted to affix this mark where he has undertaken to use such materials and to comply with the form of manufacture laid down by the Association in full knowledge of the requirements of the trade, and the appearance of the A.S.C.M. trade mark upon each length of conduit really places in the hands of the electrical contractor a hall-marked material. The Association standards incorporate B.S. Specification No. 31, and also stipulate that all material despatched shall have been properly tested. The A.S.C.M. conduit is entirely of British manufacture.

It has been possible for some thirty-odd years to be certain as to the quality of wires and cables by specifying C.M.A., but no such assurance has been available for the conduit itself. Thus it has been quite possible in the past for the value attaching to the specified conductors to be nullified by an inferior conduit installation. To overcome all these troubles it is now only necessary for architects to specify A.S.C.M. conduit, knowing that compliance with the specification will provide material of the highest possible quality.

*

The Finland State Railways have placed an order for the bulk of their 1933 requirements of rails and soleplates with two British firms of steel manufacturers, Messrs. Dorman Long & Co., Ltd., and the United Steel Companies, Ltd. The total tonnage involved is slightly in excess of 10,000, with a total value of approximately £85,000 sterling.

*

Mr. William J. Sprague, late joint managing director of Messrs. John Bolding & Sons, Ltd., has joined the staff of Messrs. Shanks & Co., Ltd., 81, New Bond Street, W.1, and Barrhead, near Glasgow.

*

In the foreword to *Factories of Steel Construction*, a brochure just issued by the British Steelwork Association, it is pointed out that "the fallacy that factory buildings must essentially be ugly and confined to the back streets of our cities has definitely been exploded by the many recently erected factories contributing architecturally to their surroundings." To substantiate this statement, a number of factories, designed by well-known architects, are illustrated throughout the booklet.

*

F. MCNEILL & COMPANY, LTD.

Centenary Year

Messrs. F. McNeill & Co., Ltd., of 52 Russell Square, London, W.C.1, the roofing contractors, is celebrating its Centenary this year.

The business was founded by Mr. Forbes McNeill in 1833. Since that date, the names of McNeill and its Lion products have become widely known throughout the building world, and factories have been established at London, Manchester and Glasgow. In the first few years the firm specialized in machinery, and although these particular activities ceased three generations ago, repeat orders for machinery are still received occasionally from different parts of the world. Roofing and underlining felts soon became the chief business, these being manufactured at the Patent Felt Works, Bunhill Row, London. Some uncertainty exists as to the exact date that Bunhill Row commenced making roofing felts, but there is no doubt that it was somewhat prior to 1840. Since then Bunhill Row has continued to manufacture this material, and today is still one of McNeill's most extensive factories.

In 1862 the firm was the sole contractors for roofing, with its asphalted felt, the Great International Exhibition, on which over 1,000,000 ft. was used.

The firm has an unbroken record as Government contractors for over 85 years. During the Great War it was employed by the Government both in manufacturing felts—the output at this time was enormous—and in carrying out roofing contracts for all the War Departments. In addition, the firm supplied the French, American and Italian armies with thousands of rolls of Lion roofing.

McNeill's is manufacturing more than twenty different products.

Progress has been made in many other directions, and during the last ten years, a number of subsidiary companies has been formed, or else a controlling interest acquired, the most notable being the General Cable Manufacturing Company Ltd., of Leatherhead, electrical cable manufacturers.

McNeills remained in private hands until 1910 when it was formed into a private limited liability company. In 1925 it was converted into a public company with an issued capital of £200,000.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Petrol Filling and General Service Station (page 7). General contractors, F. Milton and Sons, Ltd. Sub-contractors: Young & Co., structural steel; W. H. Heywood & Co., Ltd., steel roof lights; Crittall Manufacturing Co., Ltd., metal casements; E. Pollard & Co., Ltd., shop windows and lettering; Johnson and Tanner, Ltd., electrical installation; Clark and Fenn, Ltd., plasterwork and decorations; Domolac Co., cellulose paint; H. Pontifex and Sons, Ltd., sanitary fittings. The Station is equipped with Wayne's electrically operated wet-hose petrol pumps and Hammonds' oil pumps. Snowcrete white cement was used for exterior.

The Plaza Cinema, Southampton (pages 8-9). Consulting structural engineer, S. W. Budd, A.M.INST.C.E. Consulting electrical engineer: H. M. Winstanley, A.M.I.E.E. General contractors, L. F. Richardson. Sub-contractors: Horseley Bridge and Engineering Co., Ltd., steelwork; Berkeley Electrical Engineering Co., Ltd., electrical installation and Bio shutters; Geo. Pixton & Co., Ltd., seating, carpets, curtains and draperies; London Radiator Heating Co., Ltd., heating and ventilation; Plaster Decoration Co., Ltd., fibrous plaster; Mollo and Egan, decorations; Alfred Goslett & Co., Ltd., sanitary fittings and mirrors; Swanser and Son, Ltd., canopy and metal work; Thos. Cook, Ltd., entrance hall floor; F. H. Pride, electric light fittings; Blokcrete Co., Ltd., balcony steppings and pre-cast steps; Stuart's Granolithic Co., Ltd., stonework; Hoffman Sprinkler Co., Ltd., fire equipment; Walter Cassey, Ltd., ironmongery; W. James & Co., Ltd., metal windows; Middleton Fire Clay Co., faience plinth; John Compton Organ Co., Ltd., organ; Knight & Co., Ltd., console lift; Wainwright and Waring, Ltd., leaded glazing.

Housemaster's New Quarters, Mill Hill School, N.W. (pages 10-11). General contractors, Arbro, Ltd. Sub-contractors: James Gray (1925), Ltd., hot water services; Mathew Hall & Co., Ltd., internal plumbing; Smith Major and Stevens, Ltd., dinner lift; Hendon Electric Supply Co., Ltd., electric lighting; G. Mathews, Ltd., fireplaces; Metro-Vick Supplies, Ltd., electric light fittings.

China Inland Mission, Men's Training Home, 44-45, Newington Green, N.16 (page 21). Surveyors, E. J. Burr, Son and Nunn. General contractors, Allen Fairhead and Sons, Ltd. Sub-contractors: H. Young & Co., Ltd., steelwork; Stoneware (1928), Ltd., and Midhurst Brick Co., Ltd., bricks; Empire Stone Co., Ltd., stone; Kleine Co., Ltd., fireproof floors; French Asphalte Co., Ltd., asphalt; Cork Insulation Co., Ltd., floors; J. Whitehead and Sons, Ltd., tiling, terrazzo, and stairs; Hayward's, Ltd., escape stairs and roof lights; Shanks & Co., Ltd., sanitary fittings; Drake and Gorham, Ltd., electric lighting; Hammond Bros. and Champness, Ltd., electric lift; Birmingham Guild, Ltd., wrought-ironwork; Yannedis & Co., ironmongery; Richmond Gas Stove Co., Ltd., gas cookers; G. N. Haden and Sons, Ltd., central and domestic heating.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The COULSDON U.D.C. has granted consent to Messrs. Harold Williams, Holliday and Partners for the erection of eight houses to the acre on land in the centre of the Mitchley Wood estate.

Plans passed at COULSDON : Two new roads, off Woodplace Lane, for Messrs. Franks Harris Bros., Ltd. ; house, Coulsdon Road, and house, Howard Road, for Messrs. Sinden : house, Winifred Road, for Mr. H. J. Salter : pavilion and dressing-rooms, Ashdown Park Hotel, Woodplace Lane, for Mr. F. Sutton Smith ; house, Canons Hill, Old Coulsdon, for Mr. J. J. Pink ; two houses, St. Andrews Road, for Mr. W. C. E. Ingram ; house, Marlpit Avenue, for Mr. J. E. Fox.

The EALING Education Committee is to provide a school for 800 children on a site at Perivale.

Mr. T. Brammal Daniel has prepared plans for the erection of shops and flats on the Station site at EALING BROADWAY.

Plans passed by the EALING Corporation : Eight houses, Park Avenue, for Messrs. B. Smith and Son (Builders), Ltd. : 44 houses, Launceston Road, and 44 in Torrington Road, for Messrs. Swannell and Sly ; three shops, Meadow Parade, for Mr. P. P. Langdell ; three houses, Perivale Lane, for Messrs. W. P. Hughes & Co., Ltd. : eight houses, North Circular Road, for Messrs. R. Lancaster and Sons : two shops, Bilton Road, for Mr. G. L. Russell ; eight houses, Tavistock Avenue, for Mr. A. Murdock ; ten houses, Clauson Avenue, for Messrs. B. Smith and Son (Builders), Ltd. : three shops, the Broadway, Ruislip Road, for Mr. E. R. Taylor ; 19 houses, Cavendish Avenue, for Messrs. G. K. Metcalf, Ltd. ; 60 houses, Currey Road, for Bindon Building Co.; eight houses, Sandringham Road, for Mr. A. M. Burgess ; 56 houses, Whitton Avenue, for Messrs. Wood and Waller ; two bungalows, Marnham Crescent, for Mr. S. A. Todd ; alterations, 11-13 Boston Road, for Mr. S. H. West ; alterations, 121-3 The Broadway, for London Drapery Stores ; alterations, 23-5 New Broadway, for Messrs. Williamson, Ltd.

Messrs. Commercial Structures, Ltd., who are developing the Langhedge estate at EDMONTON, which is now rapidly reaching completion, are acquiring further land in the district for developments.

Plans passed by the MARYLEBONE B.C. : Building site 101-103 Hallam Street, for Mr. T. H. F. Burditt.

Plans passed by the SOUTHALL-NORWOOD U.D.C. : Three houses, Melbury Avenue and one in Sherbourne Avenue, for Messrs. Warren and Woods ; hall, shop and garage, Townsend Road, for Mr. M. Cowen ; three shops, Western Road, for Mr. A. E. Boot : 62 houses, Waxlow Estate, for Messrs. G. Wimpey & Co., Ltd.

Messrs. Stanley Hall and Easten and Robertson are to construct a bridge across Carting Lane connecting the Savoy Hotel with Shell-Mex House, STRAND.

Plans passed by the WEALDSTONE U.D.C. : Eight houses, Carmelite Road, for Messrs. Lambert and Cooke ; five houses, Clifton Road, for Mr. T. Blade ; business premises, Kenton Road, for Central Estates Co., Ltd. ; two houses, Herga Road, for Mr. W. F. Bunting ; six houses, Kenton Road, for Mr. Pateman ; alterations and additions, Northwick Park Hall, Hawthorne Avenue, for Northwick Park Halls, Ltd.

The WESTMINSTER City Council is to make a grant not exceeding £20,000 towards the cost of the erection by the Westminster Housing Trust, Ltd., of 180 flats on a site bordering on Pulford Street.

Plans passed by the WESTMINSTER City Council : Building, 51-5 Strand to abut on Durham House Street and George Court, for Messrs. Val Myer and Watson-Hart ; frontage line, 44 Vauxhall Bridge Road, for Messrs. Harper and Tunstall ; lay-out of site in Horseferry Road, next to Thorney Street, for Mr. E. G. W. Souster.

SOUTHERN COUNTIES

Plans passed at GUILDFORD : Two houses Waterden Road, for Mr. H. F. Thorpe ; office and store, Guildford bye-pass, for Messrs. H. J. Greenham, Ltd. : house, Maori Road, for Mr. C. S. Weekes : two houses, Beckingham Road, for Mr. C. T. Corps ; house, Recreation Road, for Mr. A. H. Farlow ; two shops, Swan Lane, for Mr. P. Porter ; house, Poyle Road, for Mr. E. Thompson.

MIDLAND COUNTIES

The Stoke-on-Trent Corporation has approved plans by the Chatterley-Whitfield Collieries, Ltd., for the layout of an estate off Federation Road, BURSLEM.

Mr. S. Wilkinson is to extend the brick and marl works, at High Lane, BURSLEM.

Plans passed at BURSLEM : 14 houses, Leonard Street, for Mr. J. Dickinson ; office alterations, Newcastle Street, for Co-operative Society, Ltd. ; extensions, Ellgreave Pottery, for Ellgreave Pottery Co., Ltd. ; six houses, Edge Avenue, for Mr. T. H. Hand ; 56 houses, Cobridge Road, for Messrs. Taylor, Shaw and Bromley.

Plans have been prepared by Messrs. Adams and Edwards, architects, for alterations at Embrey's bakery, FENTON, Staffs.

Plans passed at HANLEY : Nine bungalows, Longton Road, for Mr. A. Perry ; two houses, Longton Road, for Mr. A. Lilley ; alterations, Pall Mall, for Theatre Royal ; alterations and additions, 105 York Street, for Messrs. Howells (Electric Motors), Ltd. ; extensions, Caledonia Road, for Verona Specialities ; four houses, Peace Street, for Messrs. Tideswell Bros.

Plans passed by the KETTERING U.D.C. : Factory extension, Avondale Road, for Messrs. Wilson and Watson ; two houses, Beatrice Road, for Messrs. Phillips and Slow, Ltd. ; factory extension, Dalkeith Court, for Messrs. F. H. and H. S. Pochin, Ltd. ; four flats, off Pytchley Road, for Messrs. A. P. Lewis and Sons, Ltd. ; house, Beatrice Road, for Mr. C. E. Haddon ; house, Windmill Avenue, for Mr. A. Ward ; house, Netherfield Road, for Mr. C. W. Miller.

The Co-operative Society is to erect shops at Wells Green, NANTWICH.

The Notts. Education Committee has decided to submit sketch plans to the Board of Education of a portion of the permanent school to be erected on the Walesby Road site, OLLERTON, to accommodate 192 scholars. The estimated cost is £6,050.

J. A. R. Stevenson, in *The Din of a Smithy*, reviewed on pages 24-25, writes of the above illustration : "In 1928 we made a funny little gate for G. McKerrow, who lives in Cheshire."

The Notts. Education Committee has selected a site off Halam Road, SOUTHWELL, for the erection of an elementary school.

The Norton Motor Company has prepared a scheme for the erection of a motor bus garage at the junction of High Street and Whitfield Road, Ball Green, STOKE-ON-TRENT.

Plans passed by the STOKE-ON-TRENT Corporation : Additions, Boothen Old Road, for Messrs. J. H. Barrett & Co. : five houses, Vivian Road, Fenton, for Crown Staffs Porcelain Co., Ltd. ; six houses, Grove Road, for Mr. A. Perry ; workshops and garages, Kildare Street, Longton, for Mr. W. A. Eyre ; alterations, Albion Works, Longton, for Messrs. Taylor, Tunnicliffe & Co., Ltd. : alterations, "Sea Lion" public-house, Cross Street, for Messrs. Ind, Coope & Co., Ltd. ; two houses, Stone Road, for Commercial Estates : two houses, Collin Road, for Messrs. P. Bailey & Co., Ltd. : machine shop additions, Princess Street, Fenton, for Berrisford Engineering Co., Ltd. ; additions, King Street, Fenton, for Longton Transport, Ltd. : alterations, North Staffs Hotel, for L.M.S. Railway Co. ; alterations and additions, Methodist Church, Stafford Street, Longton, for the trustees ; six houses, Chaplin Road, for Messrs. Copeland and Hancock.

NORTHERN COUNTIES

The DURHAM Education Committee has instructed the architect to arrange for the erection of temporary portable accommodation at the Bloemfontein, Billingham, Horden and Blackhall Colliery council schools, by direct labour.

Application is being made to the LEEDS Corporation by the Newton Green Sports Club (1932), Ltd., for consent to erect a country club with greyhound racing track, swimming pool, etc., on the Newton Green Hall Estate, Chapeltown Road.

Mr. Edward Fish has prepared a scheme for the erection of 17 shops at Harrogate Road, Moortown, LEEDS.

The NORTHUMBERLAND Education Committee has purchased a site on the Croft Estate Garden City at Forest Hall, for the erection of a school.

The Estate Co. is to develop the Turls Hill Estate, SEDGLEY.

Plans passed at TUNSTALL : Presbytery, Queen's Avenue, for Rev. P. J. Ryan ; two houses, Stonleigh Road, for Messrs. R. Ray and Son ; alterations, Railway Inn, Lime Street, for Messrs. Ind, Coope & Co., Ltd., ; eight houses, Oxford Road, for Mr. Poole ; 18 houses, Goldenhill, for Messrs. Williams and Davies ; 30 houses, off Queen's Avenue, for Messrs. Shaw, Taylor and Bromley ; house and shop, Ball Green Lane, for Mr. W. T. Bott ; additions, Pinnox Tile Works, for Richards Tiles, Ltd. ; eight houses, Leek Road, for Mr. T. Talbot.

The WAKEFIELD Corporation is to erect 80 additional houses on the Darnley estate.

Mr. J. H. James has prepared plans for the erection of 34 houses on the Westfield estate, WALLSEND.

The WALLSEND Corporation recommends the erection of 32 houses of the two-roomed type for the aged.

Messrs. Caldow Bros. are to erect shops on the Chester-West Kirby Road, in the WIRRALL rural district, Cheshire.

MISCELLANEOUS

The GLASGOW Corporation Housing Committee has approved a plan, prepared by the director of housing, showing proposals to build six single and one double shops, and eight houses, at West Drumoyne shopping centre.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare	S. Wales & M.	1 5½	1 1¼
A_1	Abergavenny	S. Wales & M.	1 5½	1 1¼
A_3	Abingdon	S. Counties	1 4½	1 0½
A	Accrington	N.W. Counties	1 6	1 1½
A_3	Addlestone	S. Counties	1 4½	1 0½
A	Adlington	N.W. Counties	1 6	1 1½
A	Airdrie	Scotland	•1 6	1 1½
C	Aldeburgh	E. Counties	1 2	10½
A	Altrincham	N.W. Counties	1 6	1 1½
B_3	Appleby	N.W. Counties	1 2½	11
A	Ashton-under-Lyne	N.W. Counties	1 6	1 1½
A_3	Atherstone	Mid. Counties	1 4½	1 0½
B_2	Aylesbury	S. Counties	1 3	11¼
B_1	Banbury	S. Counties	1 3½	11¾
B_1	Bangor	N.W. Counties	1 3½	11¾
A_3	Barnard Castle	N.E. Coast	1 4½	1 0½
A	Barnsley	Yorkshire	1 6	1 1½
B	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow	N.W. Counties	1 6	1 1½
A	Barry	S. Wales & M.	1 6	1 1½
B_1	Basingstoke	S.W. Counties	1 3½	11¾
A_3	Bath	S.W. Counties	1 4½	1 0½
A	Batley	Yorkshire	1 6	1 1½
A_3	Bedford	E. Counties	1 4½	1 0½
A_2	Berwick-on-Tweed	N.E. Coast	1 5	1 0¾
A_2	Bewdley	Mid. Counties	1 5	1 0¾
B_3	Bicester	S. Counties	1 2½	11
	Birkenhead	N.W. Counties	•1 7½	1 2¾
A	Birmingham	Mid. Counties	1 6	1 1½
A_1	Bishop Auckland	N.E. Coast	1 5½	1 1¼
A	Blackburn	N.W. Counties	1 6	1 1½
A	Blackpool	N.W. Counties	1 6	1 1½
A	Blyth	N.E. Coast	1 6	1 1½
B_2	Bognor	S. Counties	1 3	11¼
A	Bolton	N.W. Counties	1 6	1 1½
A_3	Boston	Mid. Counties	1 4½	1 0½
A_3	Bournemouth	S. Counties	1 4½	1 0½
B_2	Bovey Tracey	S.W. Counties	1 3	11¼
A	Bradford	Yorkshire	1 6	1 1½
A_2	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 6	1 1½
B_1	Bridgwater	S.W. Counties	1 3½	11¾
A_1	Bridlington	Yorkshire	1 5½	1 1¼
A	Brighouse	Yorkshire	1 6	1 1½
A_3	Brighton	S. Counties	1 4½	1 0½
A	Bristol	S.W. Counties	1 6	1 1½
B_3	Brixham	S.W. Counties	1 2½	11
A_2	Bromsgrove	Mid. Counties	1 5	1 0¾
C	Bromyard	Mid. Counties	1 2	10½
A	Burnley	N.W. Counties	1 6	1 1½
A	Burslem	Mid. Counties	1 6	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½
A	Bury	N.W. Counties	1 6	1 1½
A_1	Buxton	N.W. Counties	1 5½	1 1¼
A_2	Cambridge	E. Counties	1 5	1 1¾
B_2	Canterbury	S. Counties	1 3	11¼
A	Cardiff	S. Wales & M.	1 6	1 1½
A	Carlisle	N.W. Counties	1 6	1 1½
B	Carmarthen	S. Wales & M.	1 4	1 0
B	Carnarvon	N.W. Counties	1 4	1 0
A	Carnforth	N.W. Counties	1 6	1 1½
A	Castleford	Yorkshire	1 6	1 1½
B	Chatham	S. Counties	1 4	1 0
B	Chelmsford	E. Counties	1 4	1 0
A_3	Cheltenham	S.W. Counties	1 4½	1 0½
A	Chester	N.W. Counties	1 6	1 1½
A	Chesterfield	Mid. Counties	1 6	1 1½
B_2	Chichester	S. Counties	1 3	11¼
A	Chorley	N.W. Counties	1 6	1 1½
B_2	Cirencester	S. Counties	1 3	11¼
A	Clitheroe	N.W. Counties	1 6	1 1½
A	Clydebank	Scotland	1 6	1 1½
A	Coalville	Mid. Counties	1 6	1 1½
A_3	Colchester	E. Counties	1 4½	1 0½
A	Colne	N.W. Counties	1 6	1 1
A_2	Colwyn Bay	N.W. Counties	1 5	1 0¾
A_1	Consett	N.E. Coast	1 5½	1 1¼
A_2	Conway	N.W. Counties	1 5	1 0¾
A	Coventry	Mid. Counties	1 6	1 1½
A_2	Crewe	N.W. Counties	1 5	1 0¾
A_3	Cumberland	N.W. Counties	1 4½	1 0½
A	Darlington	N.E. Coast	1 6	1 1½
A	Darwen	N.W. Counties	1 6	1 1½
B_2	Deal	S. Counties	1 3	11¼
A_3	Denbigh	N.W. Counties	1 4½	1 0½
A	Derby	Mid. Counties	1 6	1 1½
A	Dewsbury	Yorkshire	1 6	1 1½
B	Didcot	S. Counties	1 4	1 0
A	Doncaster	Yorkshire	1 6	1 1½
B_2	Dorchester	S.W. Counties	1 3	11¼
A_3	Driffield	Yorkshire	1 4½	1 0½
A_2	Droitwich	Mid. Counties	1 5	1 0¾
A	Dudley	Mid. Counties	1 6	1 1½
A	Dundee	Scotland	1 6	1 1½
A	Durham	N.E. Coast	1 6	1 1½
A_3	Eastbourne	S. Counties	1 4½	1 0½
A_1	Ebbw Vale	S. Wales & M.	1 5½	1 1¼
A	Edinburgh	Scotland	1 6	1 1½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5½	1 1¼
A_2	Exeter	S.W. Counties	•1 5	1 0¾
B_1	Exmouth	S.W. Counties	1 3½	11¾
A_3	Felixstowe	E. Counties	1 4½	1 0½
A_3	Filey	Yorkshire	1 4½	1 0½
A	Fleetwood	N.W. Counties	1 6	1 1½
B_2	Folkestone	S. Counties	1 3	11¼
A	Frodsham	N.W. Counties	1 6	1 1½
B_2	Frome	S.W. Counties	1 3	11¼
A	Gateshead	N.E. Coast	1 6	1 1½
B	Gillingham	S. Counties	1 4	1 0
A_2	Gloucester	S.W. Counties	1 5	1 0¾
A_2	Goole	Yorkshire	1 5	1 0¾
A_3	Gosport	S. Counties	1 4½	1 0½
A_3	Grantham	Mid. Counties	1 4½	1 0½
A_1	Gravesend	S. Counties	1 5½	1 1¼
A	Greenock	Scotland	•1 6	1 1½
A	Grimsby	Yorkshire	1 6	1 1½
B_1	Guildford	S. Counties	1 3½	11¾
A	Halifax	Yorkshire	1 6	1 1½
A	Hanley	Mid. Counties	1 6	1 1½
A	Harrogate	Yorkshire	1 6	1 1½
A	Hartlepools	N.E. Coast	1 6	1 1½
B	Harwich	E. Counties	1 4	1 0
B_2	Hastings	S. Counties	1 3	11¼
A_3	Hatfield	S. Counties	1 4½	1 0½
B	Hereford	S.W. Counties	1 4	1 0
A_3	Hertford	E. Counties	1 4½	1 0½
A	Heysham	N.W. Counties	1 6	1 1½
A	Howden	N.E. Coast	1 6	1 1½
A	Huddersfield	Yorkshire	1 6	1 1½
A	Hull	Yorkshire	1 6	1 1½
A	Ilkley	Yorkshire	1 6	1 1½
A	Immingham	Mid. Counties	1 6	1 1½
A_3	Ipswich	E. Counties	1 4½	1 0½
B_3	Isle of Wight	S. Counties	1 2½	11
A	Jarrow	N.E. Coast	1 6	1 1½
A	Keighley	Yorkshire	1 6	1 1½
B	Kendal	N.W. Counties	1 4	1 0
B	Keswick	N.W. Counties	1 4	1 0
A_2	Kettering	Mid. Counties	1 5	1 0¾
A_2	Kidderminster	Mid. Counties	1 5	1 0¾
B_2	King's Lynn	E. Counties	1 3	11¼
A	Lancaster	N.W. Counties	1 6	1 1½
A_2	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 6	1 1½
A	Leek	Mid. Counties	1 6	1 1½
A	Leicester	Mid. Counties	1 6	1 1½
A	Leigh	N.W. Counties	1 6	1 1½
B_3	Lewes	S. Counties	1 2½	11
A_2	Lichfield	Mid. Counties	1 5	1 0¾
A	Lincoln	Mid. Counties	1 6	1 1½
	Liverpool	N.W. Counties	•1 7½	1 2¾
A_2	Llandudno	N.W. Counties	1 5	1 0¾
A	Llanelly	S. Wales & M.	1 6	1 1½
	London (12-miles radius)		1 7½	1 2¾
	Do. (12-15 miles radius)		1 7	1 2¼
A	Long Eaton	Mid. Counties	1 6	1 1½
A	Loughborough	Mid. Counties	1 6	1 1½
A_3	Luton	E. Counties	1 4½	1 0½
A	Lytham	N.W. Counties	1 6	1 1½
A_1	Macclesfield	N.W. Counties	1 5½	1 1¼
B	Maidstone	S. Counties	1 4	1 0
A_3	Malvern	Mid. Counties	1 4½	1 0½
A	Manchester	N.W. Counties	1 6	1 1½
A	Mansfield	Mid. Counties	1 6	1 1½
B_1	Margate	S. Counties	1 3½	11¾
A_3	Matlock	Mid. Counties	1 4½	1 0½
A_1	Merthyr	S. Wales & M.	1 5½	1 1¼
A	Middlesbrough	N.E. Coast	1 6	1 1½
A_2	Middlewich	N.W. Counties	1 5	1 0¾
B_2	Minehead	S.W. Counties	1 3	11¼
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3	11¼
A	Morecambe	N.W. Counties	1 6	1 1½
A_2	Nantwich	N.W. Counties	1 5	1 0¾
A	Neath	S. Wales & M.	1 6	1 1½
A	Nelson	N.W. Counties	1 6	1 1½
A	Newcastle	N.E. Coast	1 6	1 1½
A	Newport	S. Wales & M.	1 6	1 1½
A	Normanton	Yorkshire	1 6	1 1½
A_1	Northampton	Mid. Counties	1 5½	1 1¼
A	North Staffs.	Mid. Counties	1 6	1 1½
A	North Shields	N.E. Coast	1 6	1 1½
A_2	Norwich	E. Counties	1 5	1 0¾
A	Nottingham	Mid. Counties	1 6	1 1½
A	Nuneaton	Mid. Counties	1 6	1 1½
A_3	Oakham	Mid. Counties	1 4½	1 0½
A	Oldham	N.W. Counties	1 6	1 1½
A_3	Oswestry	N.W. Counties	1 4½	1 0½
A_2	Oxford	S. Counties	1 5	1 0¾
A	Paisley	Scotland	•1 6	1 1½
B_3	Pembroke	S. Wales & M.	1 2½	11
A	Perth	Scotland	•1 6	1 1½
A_2	Peterborough	E. Counties	1 5	1 0¾
A	Plymouth	S.W. Counties	•1 6	1 1½
A	Pontefract	Yorkshire	1 6	1 1½
A_1	Pontypridd	S. Wales & M.	1 5½	1 1¼
A_3	Portsmouth	S. Counties	1 4½	1 0½
A	Preston	N.W. Counties	1 6	1 1½
A	Queensferry	N.W. Counties	1 6	1 1½
A_2	Reading	S. Counties	1 5	1 0¾
B	Reigate	S. Counties	1 4	1 0
A_3	Retford	Mid. Counties	1 4½	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 5½	1 1¼
A_3	Ripon	Yorkshire	1 4½	1 0½
A	Rochdale	N.W. Counties	1 6	1 1½
B	Rochester	S. Counties	1 4	1 0
A_1	Ruabon	N.W. Counties	1 5½	1 1¼
A	Rugby	Mid. Counties	1 6	1 1½
A_3	Rugeley	Mid. Counties	1 4½	1 0½
A	Runcorn	N.W. Counties	1 6	1 1½
A_2	St. Albans	E. Counties	1 5	1 0¾
A	St. Helens	N.W. Counties	1 6	1 1½
B_3	Salisbury	S.W. Counties	1 2½	11
A_1	Scarborough	Yorkshire	1 5½	1 1¼
A	Scunthorpe	Mid. Counties	1 6	1 1½
A	Sheffield	Yorkshire	1 6	1 1½
A	Shipley	Yorkshire	1 6	1 1½
A_2	Shrewsbury	Mid. Counties	1 5	1 0¾
A_2	Skipton	Yorkshire	1 5	1 0¾
A_3	Slough	S. Counties	1 4½	1 0½
A_2	Solihull	Mid. Counties	1 5	1 0¾
A_2	Southampton	S. Counties	1 5	1 0¾
A_2	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport	N.W. Counties	1 6	1 1½
A	S. Shields	N.E. Coast	1 6	1 1½
A_2	Stafford	Mid. Counties	1 5	1 0¾
A	Stockport	N.W. Counties	1 6	1 1½
A	Stockton-on-Tees	N.E. Coast	1 6	1 1½
A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
B	Stroud	S.W. Counties	1 4	1 0
A	Sunderland	N.E. Coast	1 6	1 1½
A	Swadlincote	Mid. Counties	1 6	1 1½
A	Swansea	S. Wales & M.	1 6	1 1½
A_3	Swindon	S.W. Counties	1 4½	1 0½
A_1	Tamworth	N.W. Counties	1 5½	1 1¼
B	Taunton	S.W. Counties	1 4	1 0
A	Teesside Dist.	N.E. Counties	1 6	1 1½
A_3	Teignmouth	S.W. Coast	1 4½	1 0½
A	Todmorden	Yorkshire	1 6	1 1½
A_1	Torquay	S.W. Counties	1 5½	1 1¼
C	Truro	S.W. Counties	1 2	10½
B	Tunbridge Wells	S. Counties	1 4	1 0
A	Tunstall	Mid. Counties	1 6	1 1½
A	Tyne District	N.E. Coast	1 6	1 1½
A	Wakefield	Yorkshire	1 6	1 1½
A	Walsall	Mid. Counties	1 6	1 1½
A	Warrington	N.W. Counties	1 6	1 1½
A_2	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 5	1 0¾
A	West Bromwich	Mid. Counties	1 6	1 1½
A_2	Weston-s.-Mare	W. Counties	1 5	1 0¾
A_2	Whitby	Yorkshire	1 5	1 0¾
A	Widnes	N.W. Counties	1 6	1 1½
A	Wigan	N.W. Counties	1 6	1 1½
B_1	Winchester	S. Counties	1 3½	11¾
A_3	Windsor	S. Counties	1 4½	1 0½
A	Wolverhampton	Mid. Counties	1 6	1 1½
A_2	Worcester	Mid. Counties	1 5	1 0¾
A_3	Worksop	Yorkshire	1 4½	1 0½
A_1	Wrexham	N.W. Counties	1 5½	1 1¼
A_3	Wycombe	S. Counties	1 4½	1 0½
B_1	Yarmouth	E. Counties	1 3½	11¾
B_1	Yeovil	S.W. Counties	1 3½	11¾
A	York	Yorkshire	1 6	1 1½

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7½
Carpenter	„		1	7½
Joiner	„		1	7½
Machinist	„		1	8½
Mason (Banker)	„		1	7½
„ (Fixer)	„		1	8½
Plumber	„		1	7½
Painter	„		1	7½
Paperhanger	„		1	9½
Glazier	„		1	7½
Slater	„		1	7½
Scaffolder	„		1	3½
Timberman	„		1	3½
Navvy	„		1	2¾
General Labourer	„		1	2¾
Lorryman	„		1	5
Crane Driver	„		1	6½
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2" Broken Brick	„		9	6
¾" „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, Add	„	2	0	0
„ Other Colours	„	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" „ „ „	„		1	11
3" „ „ „	„		2	2
4" „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ Sawn templates	„	7	6
„ Paving, 2"	F.S.	1	8
„ „ 3"	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	„	26	0	0
20" × 10" Countesses	„	19	5	0
18" × 10" Viscountesses	„	15	17	6
18" × 9" Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
„ green „	„	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾"	Sq.		19	0
„ ⅞"	„	1	1	6
„ 1"	„	1	3	6
„ 1¼"	„	1	7	6
„ 1½"	„	1	12	0
Deal matchings, ⅝"	„		14	0
„ ¾"	„		15	6
„ 1"	„	1	4	0
Rough boarding ¾"	„		16	0
„ 1"	„		18	0
„ 1¼"	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2′–14′ long, per ft.run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3"–11½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	„	8	6
„ „ ½"	„	8	3
„ „ ⅝"	„	8	0
„ „ ¾"	„	7	6
„ „ ⅞"	„	7	6
„ „ 1"	„	7	6
„ „ 1¼"	„	7	6
„ „ 1½"	„	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9" offsets	„	4	0	6	3
Plinth bends, 4½" to 6"	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			3¾
„ „ 26 oz. „ „ „	„			4½
Arctic glass, white	„			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„			6½
¼" Hartley's rough rolled	„			7
¼" „ wired cast	„			10
¼" Georgian wired cast	„			11
¼" Polished plate, n/e 1 ft.	„	†7½	to	‡1 0
„ „ 2	„	†10	„	‡1 3½
„ „ 3	„	†1 4½	„	‡1 10
„ „ 4	„	†1 11	„	‡2 4
„ „ 6	„	†2 3	„	‡2 7½
„ „ 8	„	†2 5	„	‡3 0½
„ „ 12	„	†2 10	„	‡3 3½
„ „ 20	„	†3 3½	„	†3 9
„ „ 45	„	†3 6½	„	‡4 0½
„ „ 65	„	†3 11½	„	‡4 4
„ „ 90	„	†4 4	„	‡4 9
„ „ 100	„	†4 6	„	‡4 11
Vita glass, sheet, n/e 1 ft.	„			1 0
„ „ „ 2	„			1 3
„ „ „ over 2	„			1 9
„ „ plate, n/e 1 ft.	„			1 6
„ „ „ 2	„			3 0
„ „ „ 5	„			4 0
„ „ „ 7	„			5 0
„ „ „ 15	„			6 0
„ „ „ over 15	„			7 6
Putty, linseed oil	lb.			3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay . . . add	„		3	0
If in underpinning „	„		5	0
Digging, return, fill and ram „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	0
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½"		¾"		1"		1½"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

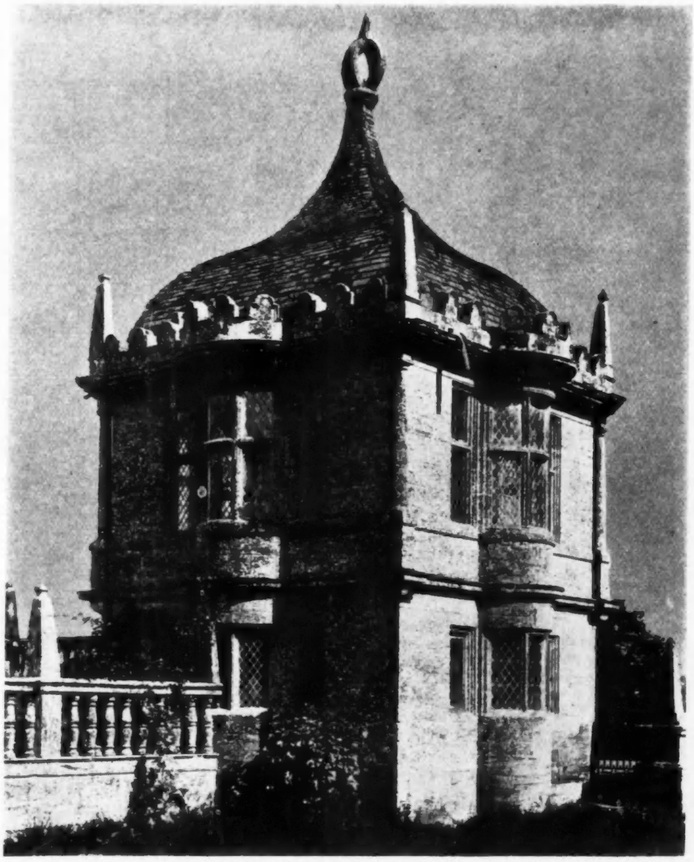
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	„		10½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	„	2	9

MONTACUTE HOUSE

MEASURED DRAWINGS OF THE GARDEN PAVILIONS



ONE OF THE PAVILIONS OR SUMMER HOUSES

MONTACUTE House, Somerset, which has recently been taken over by the National Trust, was built between 1580 and 1601, and is especially interesting because the formal garden was laid out at the time the house was built and forms, with it, one complete design.

The principal rooms of the house are on the east side and overlook the formal garden, which consists of a large lawn, surrounded by paths and flower-beds, and enclosed on three sides by a high balustrade; in the centre of the eastern side are gates leading to an avenue of trees in the park, laid out on the central axis of the house.

A central doorway (see block plan reproduced overleaf) gives access from the house to a raised terrace, contained within the projecting wings of the house, with steps leading down to the garden. Gates in the north and south sides of the garden lead to other gardens, laid out on an axis passing through these two gates. The layout of the grounds is thus governed by two main axial lines at right angles to each other.

The smaller measured drawing, on the last page, gives a plan and elevation of the eastern balustrade and gateway, and shows the position of the two pavilions. The balustrade on this side has been built three feet lower than those on the north and south, in order to provide a view of the park. The outline of the house is given to indicate how the main characteristics of the design have been kept throughout. The curved roofs of the pavilions match the gables of the house, and the finials of the pavilions and balustrade are similarly characteristic.

The large drawing overleaf gives details of the two pavilions, or summer houses, in the north-east and south-east corners of the formal garden. Internally, each has a single room, 14 feet 6 inches square by 25 feet high.

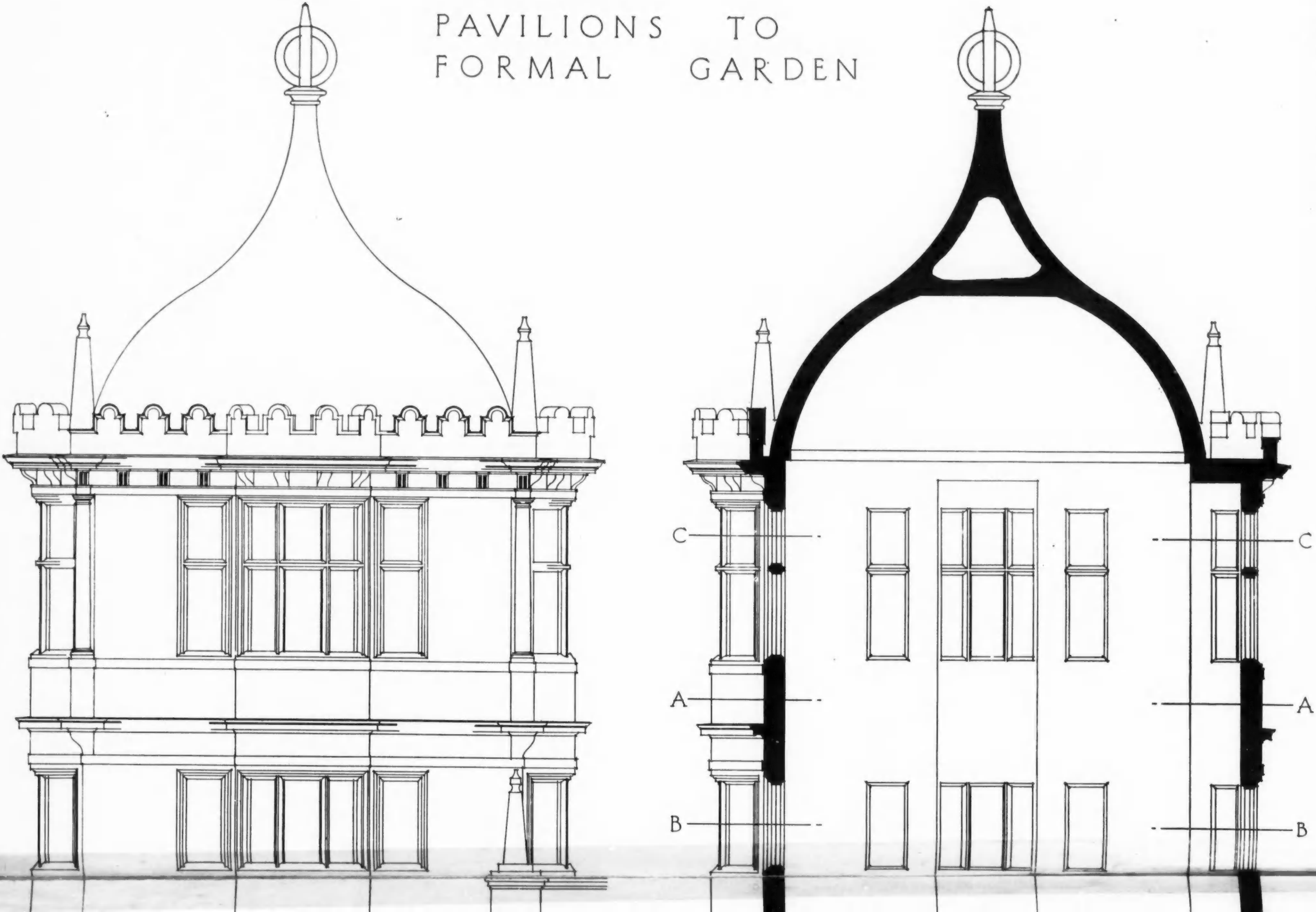
The external characteristics are in keeping with the design of the house. The curved roof is covered with slates, and terminated by a curious hooped finial, which is repeated on the gate piers. The detatched Doric columns, supported on brackets, and springing from above the lower range of windows, together with the bracketed frieze, are the result of the necessity of obtaining a continuous internal gutter to the roof. The entablature is of classical design, with battlemented blocking course. The whole, including the mullioned and transomed windows, is typical of the Elizabethan period, in which classical detail was applied in a tentative manner to Gothic features.

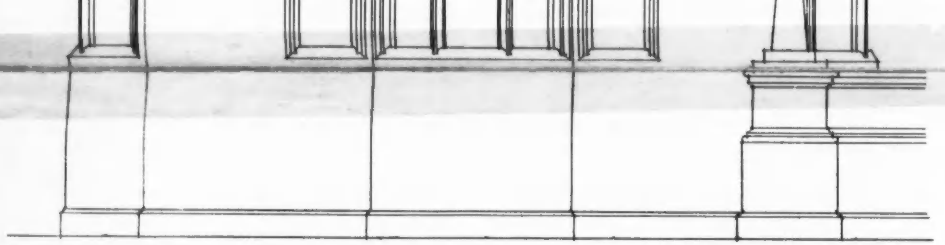
Ham Hill Stone from the neighbouring quarries has been used throughout. These quarries have supplied the material for the many beautiful and historical buildings in the surrounding district, of which Montacute, with Brympton D'Evercy, and Forde Abbey, already illustrated in supplements, are outstanding examples.

A. G. P. FRITH

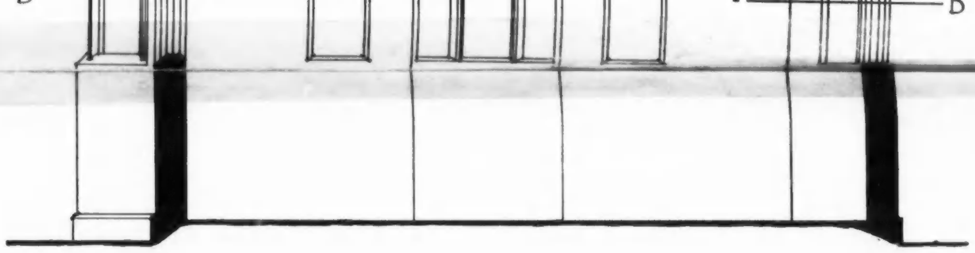
MONTACUTE HOUSE SOMERSET (1580-1601)

PAVILIONS TO FORMAL GARDEN

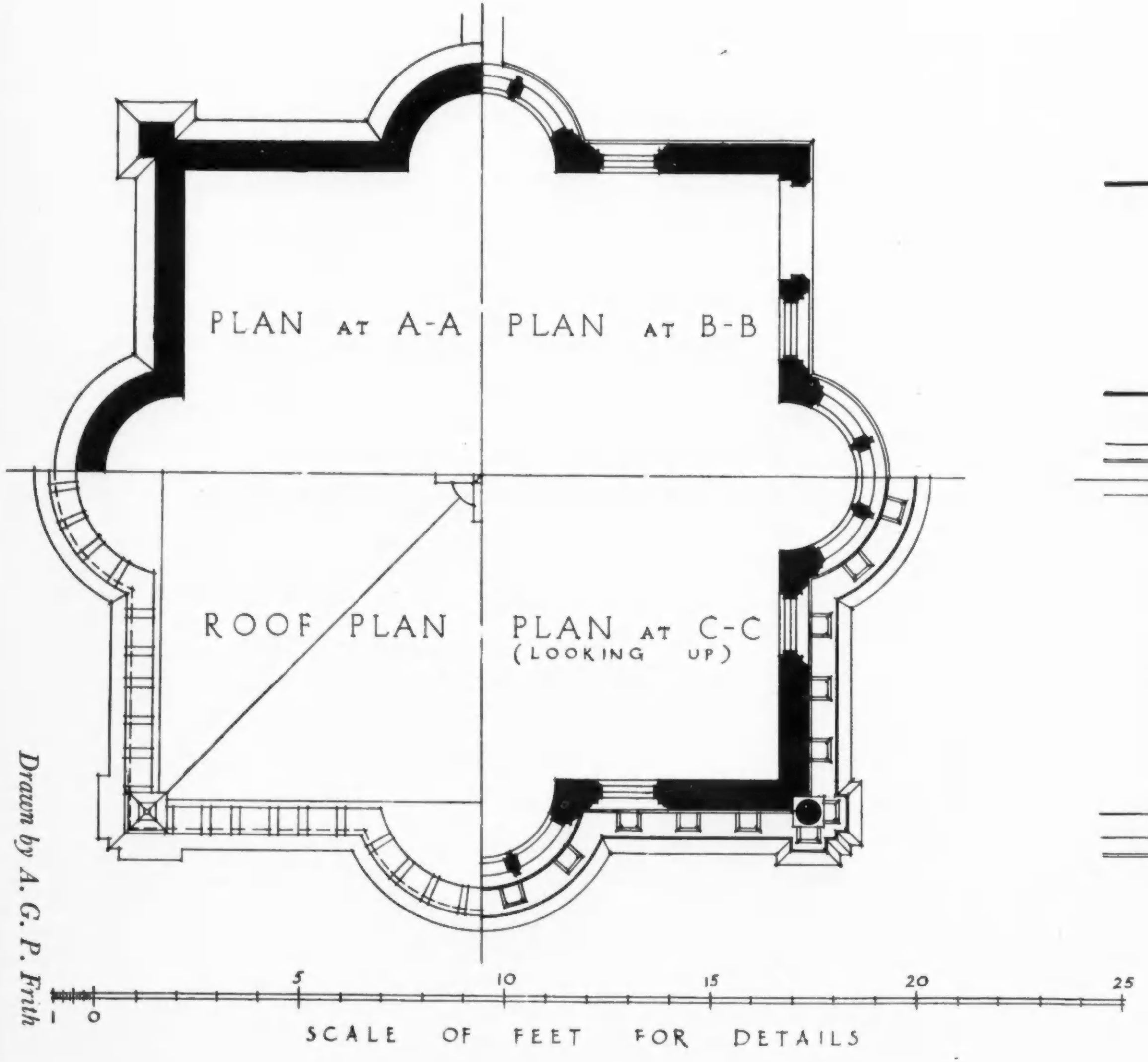


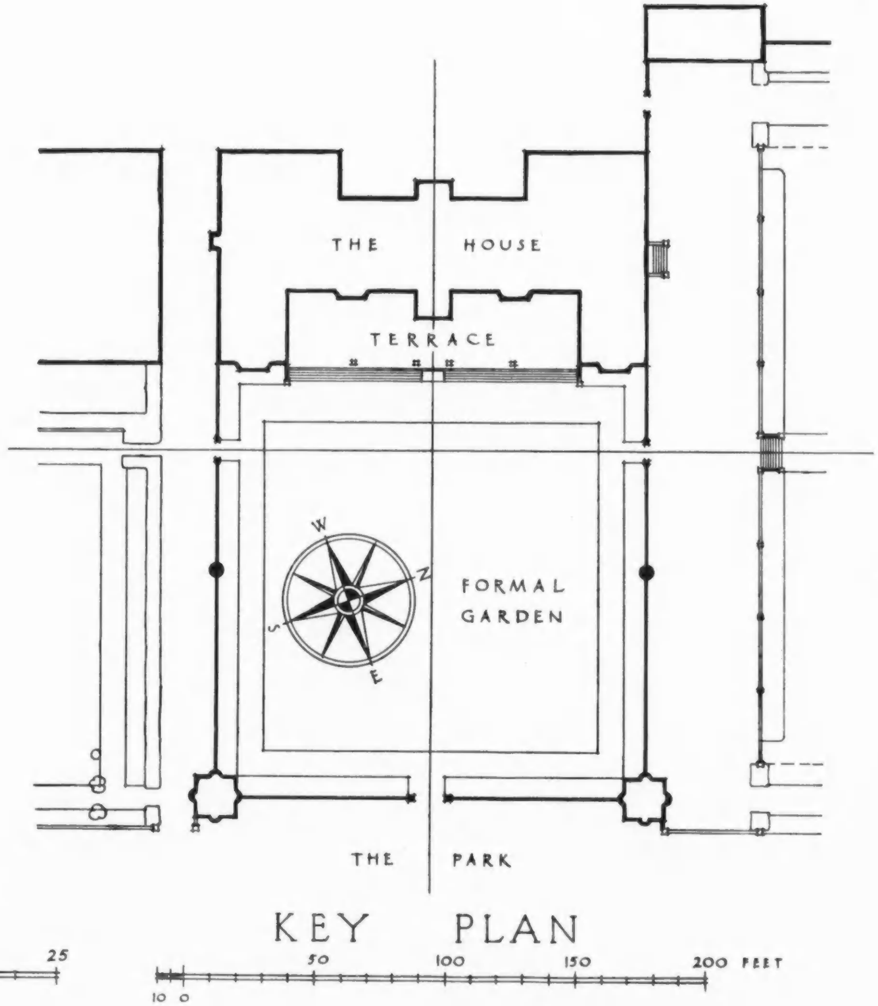


ELEVATION



SECTION

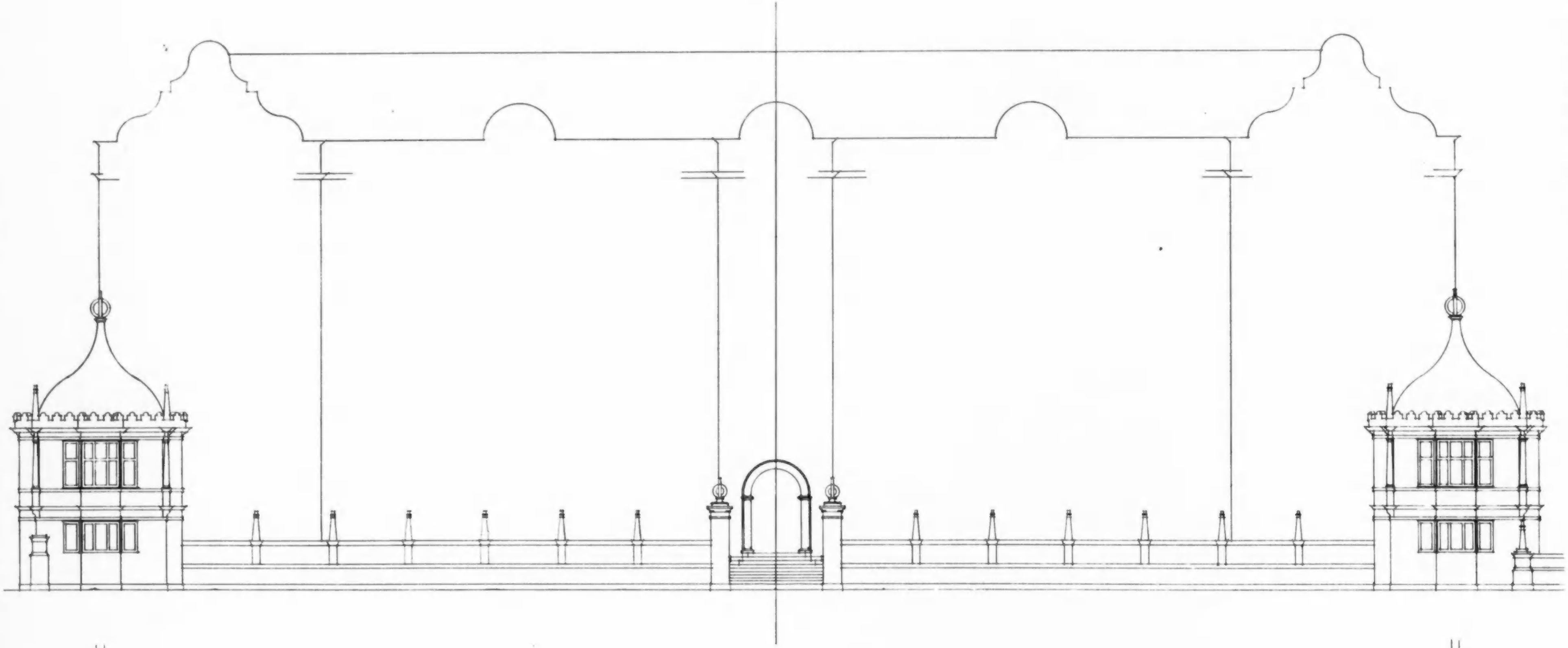

PLAN AT A-A
PLAN AT B-B
ROOF PLAN
PLAN AT C-C (LOOKING UP)
0
5
10
15
20
25
SCALE OF FEET FOR DETAILS


THE HOUSE
TERRACE
FORMAL GARDEN
W
N
S
E
THE PARK
10 0
50
100
150
200 FEET

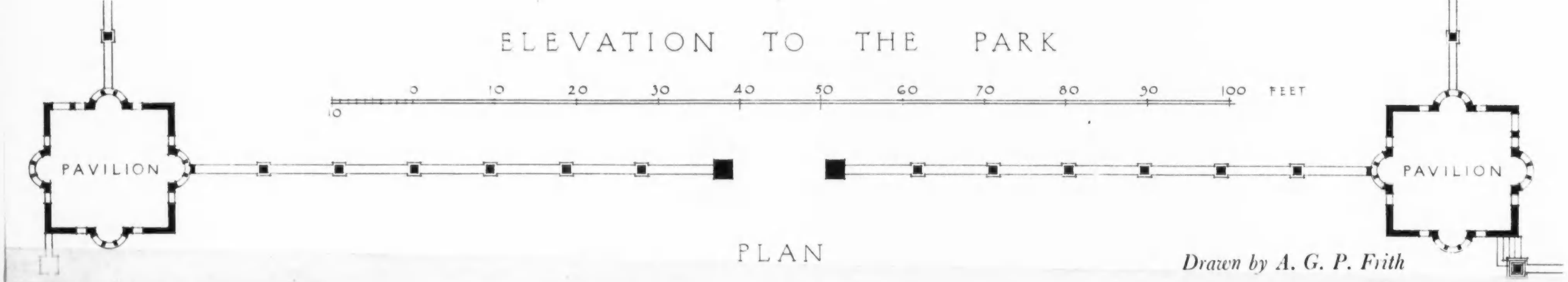
KEY PLAN

Drawn by A. G. P. Frith

MONTACUTE HOUSE SOMERSET (1580-1601)
PAVILIONS & BALUSTRADE TO FORMAL GARDEN



ELEVATION TO THE PARK

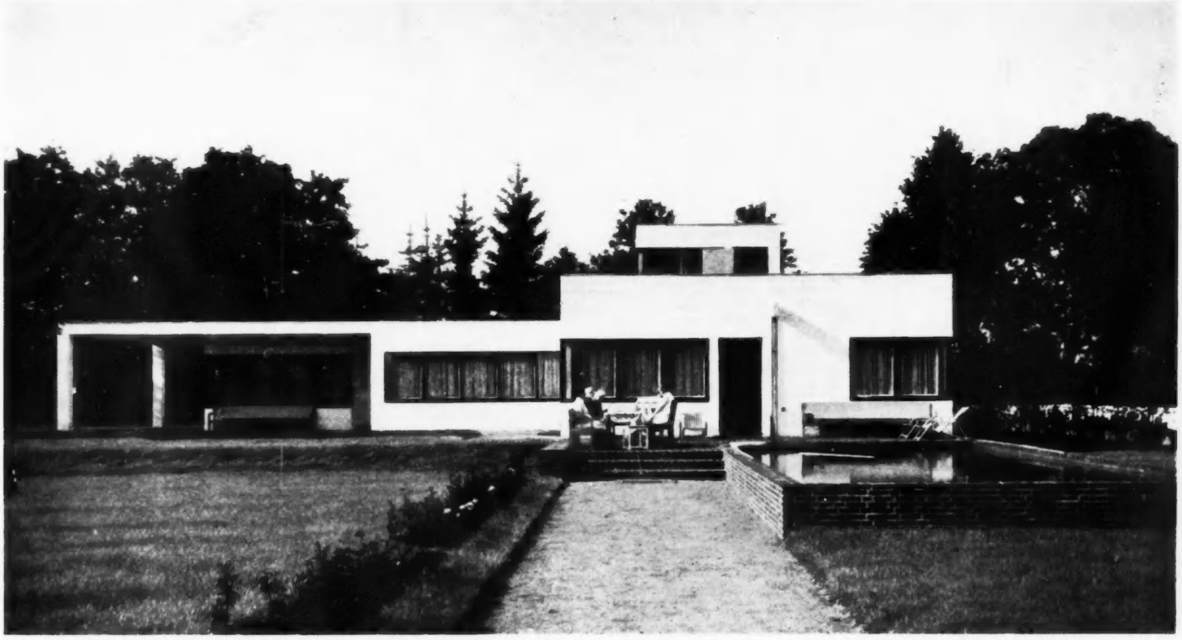

10
0
10
20
30
40
50
60
70
80
90
100 FEET
PAVILION
PAVILION

PLAN

Drawn by A. G. P. Frith

THE "HAUS BAUER" NEAR HAMBURG

DETAIL DRAWINGS OF CORNER WINDOW: : PROFESSOR KARL SCHNEIDER, ARCHITECT



THE GARDEN SIDE OF THE HOUSE AND SWIMMING POOL IN ITS TREE-ENCIRCLED SETTING

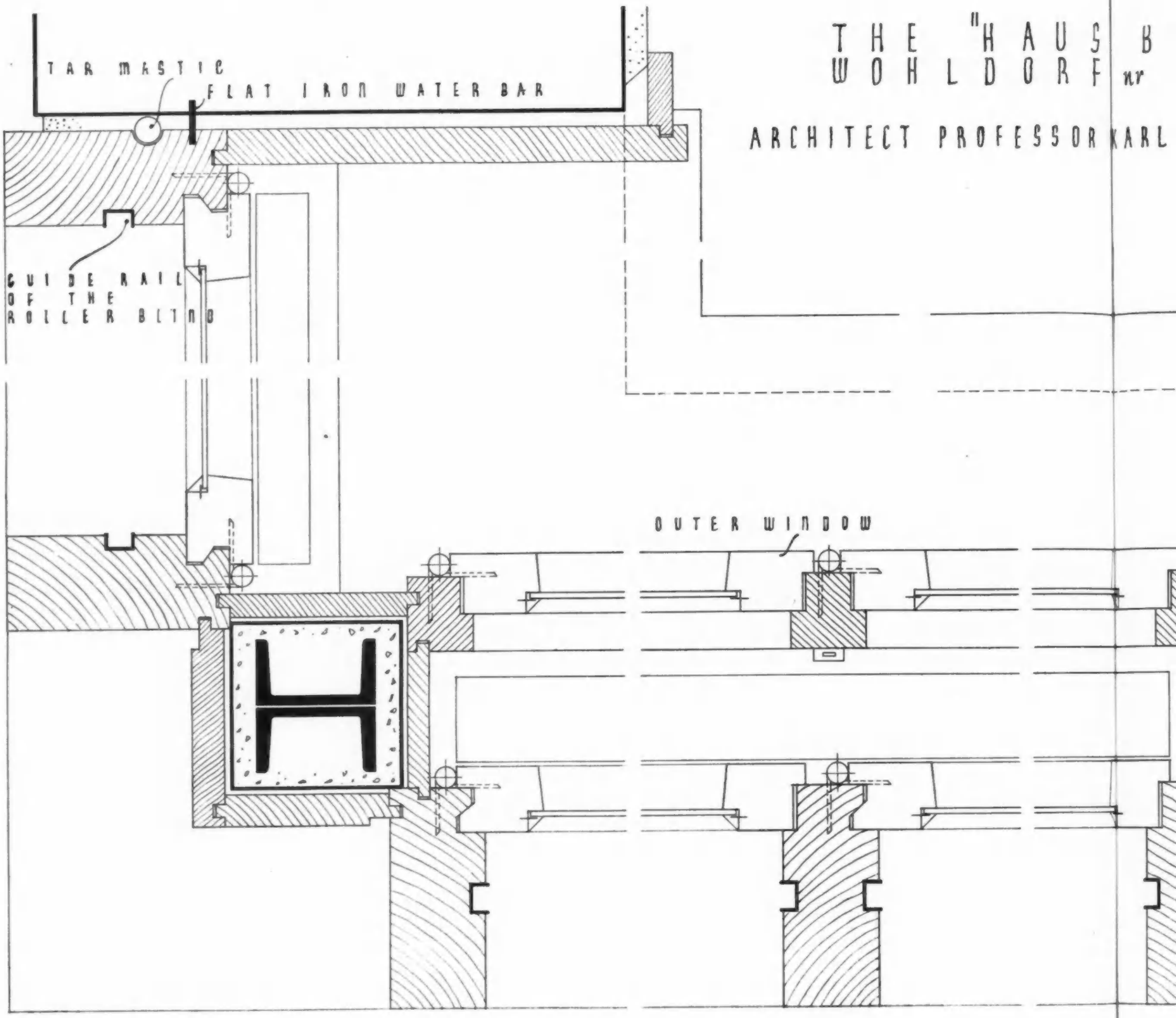
IN spite of its Italian appearance, this house stands in the somewhat rigorous climate of North Germany. Its low but attractive clean lines stretch in front of woodland, and are in close relation with the garden. Its spreading outlines freely express the various room-forms and afford sheltered retreats, large corner-windows, almost like verandas, and spacious, sunny lounges in the open air and on the terraces. Obviously it is designed to make the most of sunny hours, which in Hamburg are not very numerous, and, seen through the mists and rain of the North Sea, it will appear less convincing. But it is built to meet the modern inclination for light, air and country surroundings. The technical problems of building such a house to withstand the rigours of a northern climate are exacting, but they can certainly be solved without making the cost prohibitive.

The "Haus Bauer" contains a single living room, a dining room, two bedrooms and offices. The walls are built of brick, faced with klinker on the exterior, and are treated with two coats of mineral colour. In winter the windows can be doubled by the insertion of inner panes, and are given additional security by shutters. The roof consists, counting from above downwards, of a layer of gravel, two thicknesses of dressing, cemented together, wood rafters, with between the timbers pounded clay, inner rafters, and woven reeds with shield dressing. On the top side of the roof lie, upon the gravel, wooden gratings.

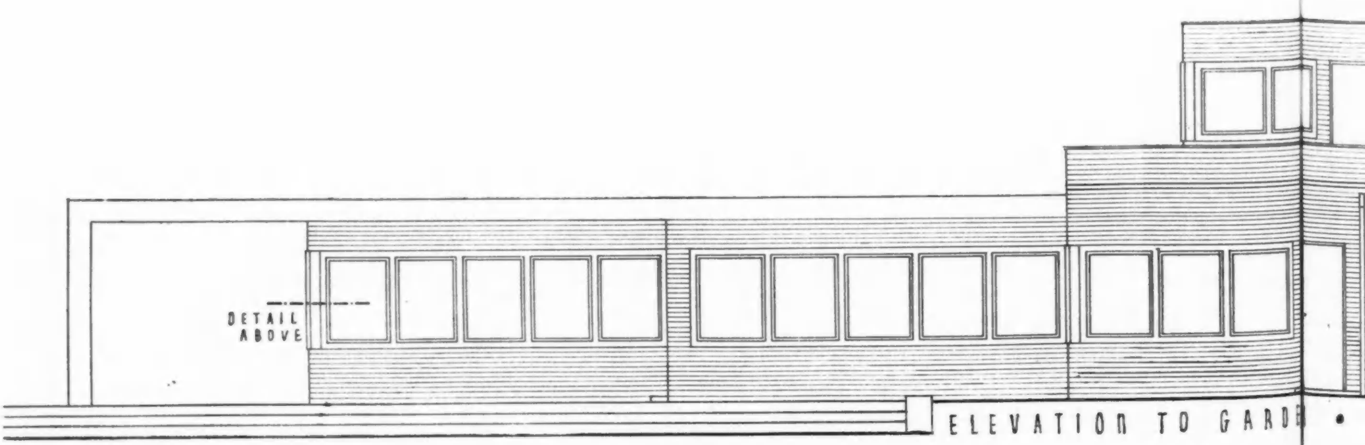
JOSEF UMLAUF

THE "HAUS B
WOHLDORF nr

ARCHITECT PROFESSOR KARL


TAR MASTIC
FLAT IRON WATER BAR
GUIDE RAIL OF THE ROLLER BLIND
OUTER WINDOW

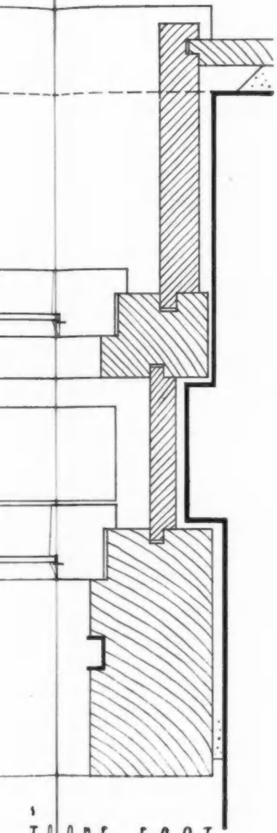
PLAN THROUGH A GROUND FLOOR CORNER WINDOW • THREE INCHES TO ONE


DETAIL ABOVE

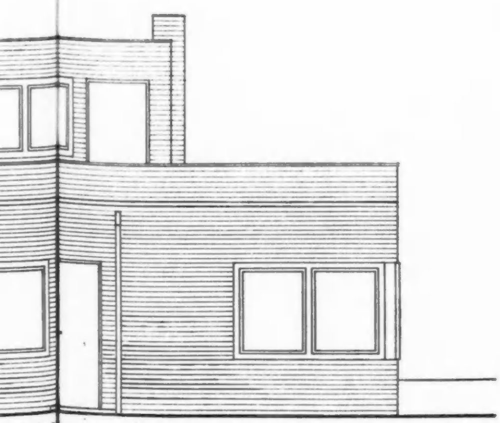
ELEVATION TO GARD •

S BAUER" AT
F nr HAMBURG

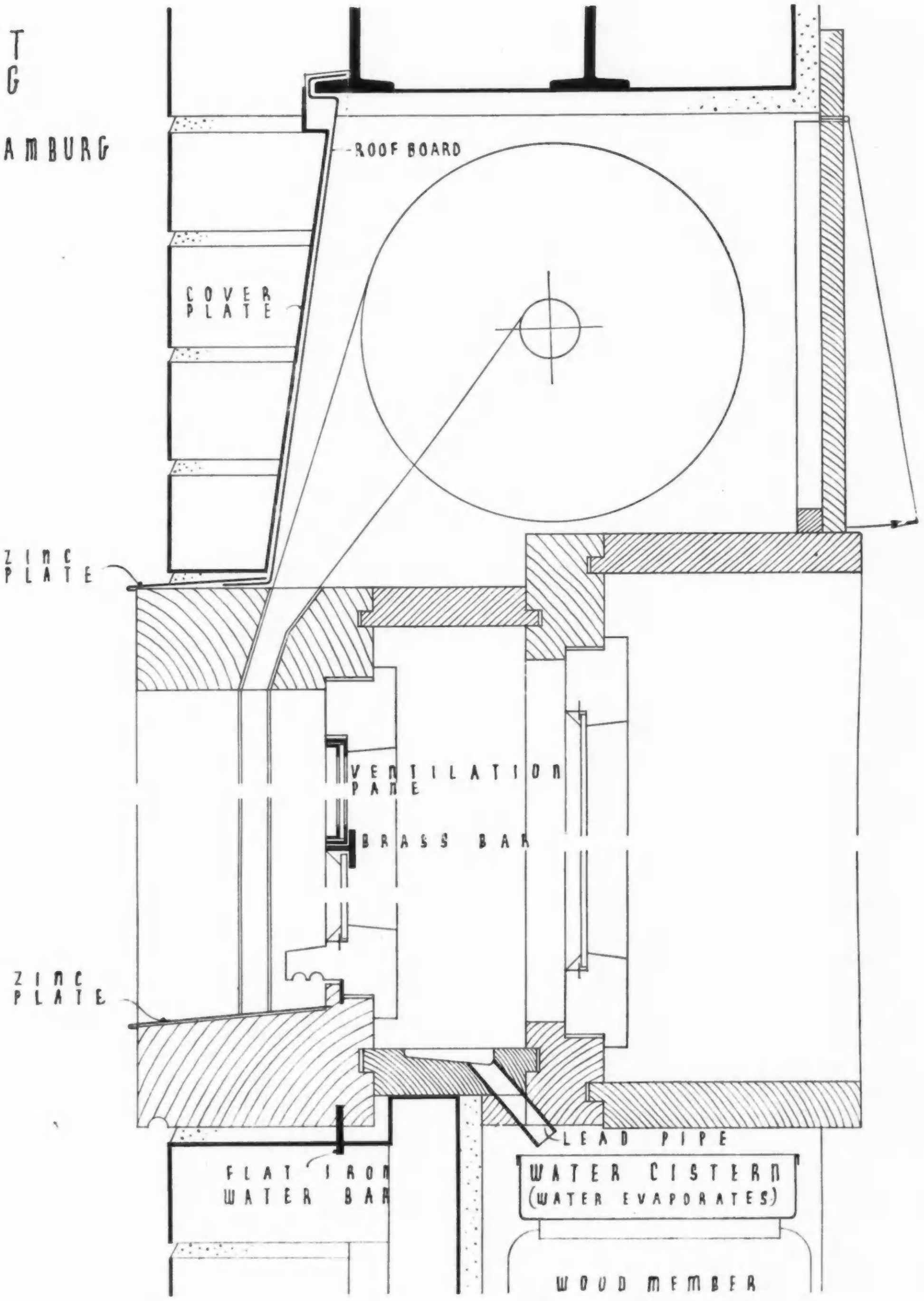
OR KARL SCHNEIDER HAMBURG



TO ONE FOOT



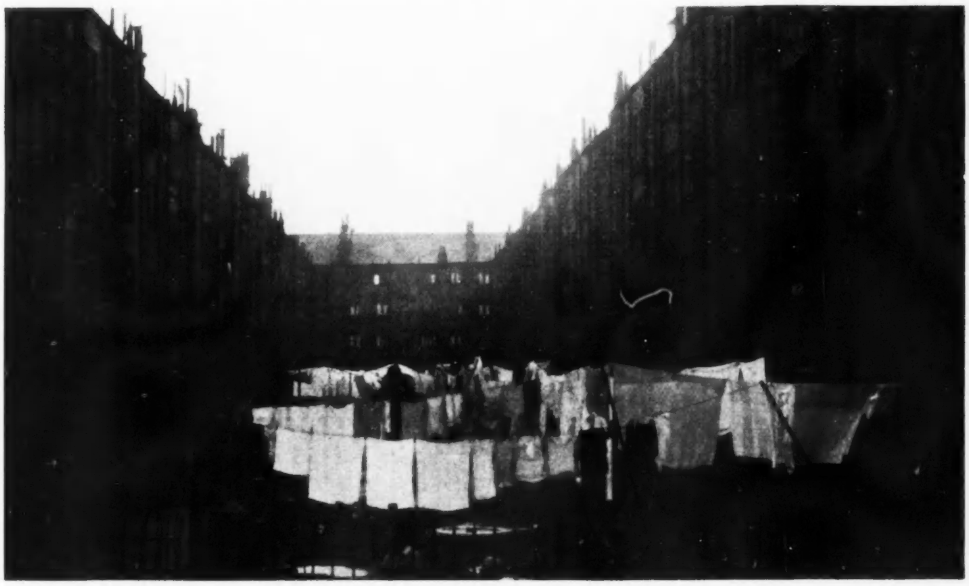
ARDE • 8 FEET TO ONE INCH

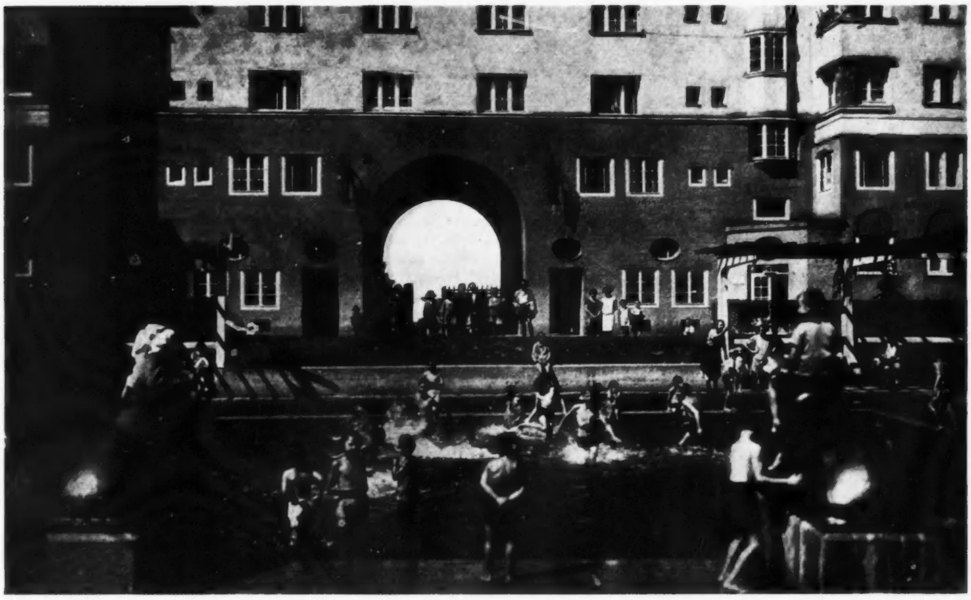

ROOF BOARD
COVER PLATE
ZINC PLATE
VENTILATION PANE
BRASS BAR
ZINC PLATE
LEAD PIPE
FLAT IRON WATER BAR
WATER CISTERN (WATER EVAPORATES)
WOOD MEMBER

SECTION

WASHING : A TALE OF TWO CITIES

DALMUIR, GLASGOW : FÜCHSENFELDHOF, VIENNA

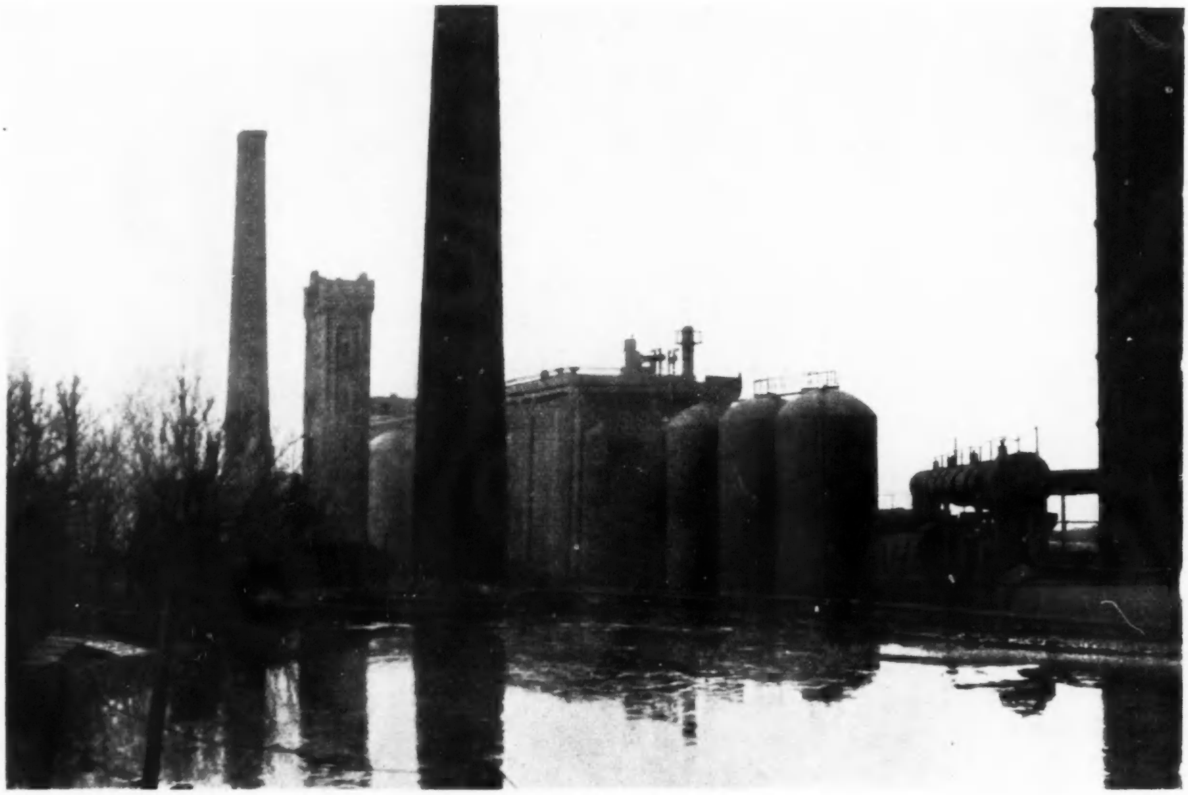




NO more than a glance is needed to bring home the contrast between these two pictures—one all gloom, the other all gaiety. Yet both show forecourts of workpeoples' tenements—in Glasgow and Vienna, respectively—conjugating the verb "to wash."

Something must be allowed for northern mists and southern sun, and something for national temperament. But it is man-made conditions that inject into an existence always sufficiently stern the humanity to which mankind is rightly considered heir. There are children in both scenes—in the one, driven by ranks of dank linen to play their meagre games close up against the railings; in the other, frolicking in their own paddling-pool (for the clothes are banished to the communal laundry of the tenement) with so much abandon that mothers must retrieve them with the fist, as one is seen to be doing.

We do not need to see the plans of the Glasgow "flats" to know they are models of gloom, dirt, and darkness, yet an organized effort could give the people of this country living conditions as pleasant as those of the Viennese, at rents no higher than they pay now, and still show a reasonable profit. According to the census of 1931, more than half the population of Glasgow live in dwellings of two rooms or less, and in London the percentage of people living more than three to a room actually increased between 1921 and 1931.



WARNING

Argument was brought to bear, overleaf, on the immediate surroundings of human life in Scotland, which, by the way, are no more deplorable than similar conditions in England. The case for their improvement is irrefutable, the need pressing, and the paradox is that it can not only proceed side-by-side with the rehabilitation of industry, now crippled with paralysis, but can actually contribute to its recovery.

Such sights as that seen above carry a spectacular warning. Industry is shown literally falling to bits. This was a once-prosperous ironworks in the Airdrie district of Scotland. It is now silent and deserted, the fires are cold, and rust is eating away the abandoned plant, so that it stands, precariously, waiting to be engulfed in the dismal swamp, a symbol of what our civilization may look like to the eyes of the future, should it disintegrate, as did the civilization of Rome.

In the article on page 73 Scotland is cited as a concrete example for the application of a reasoned plan of reconstruction. We must reorganize or disintegrate.

ECONOCRAZY[*]

"I guess I'll have to change my plan."

—Refrain now being played by every dance band in every place where dance bands play.

THE discerning will have noticed that it is the custom of professional papers at this time of the year to adorn the pages of their double numbers with jests and drolleries which would be considered indecorous in spring, summer or autumn. Whether the impulse behind this practice is the desire to be in editorial tune with the glad New Year, or whether it simply represents a praiseworthy wish to bolster up the spirits of the reader against the thought of twelve more insufferable months, we do not presume to say.

At first sight the present New Year issue of the JOURNAL may appear to depart from this happy precedent: it insists upon probing a national sore—the lack of employment in the Building Industry. In other words, it breaks into the field of economics.

Looked at from one point of view, however, the dismal science of *Economics* can be thought of as the biggest joke of all—such a joke that it may yet be the death of us. Certainly, several industries are dying; though not, unfortunately, with laughter.

The world continues to be full of a number of things, yet somehow we all are not wise and as happy as kings. Despite the fact that food is being dug back into the ground lest it should be eaten, or used as fuel for locomotives, or burnt, or poured into the sea, or simply left to rot on its stalks, the Dismal Science says we cannot afford to have it unless we work.

And when the Building Industry takes off its coat and says: "Here are the men; here are the machines; and *there* is the work—"

—"Work!" screams the Dismal Science. "Work! You can't afford to *work*!"

A charming dilemma, by means of which the Dismal Science confidently hopes to balance the budget.

But Mr. Meynard Keynes doesn't agree. In a broadcast speech last week he declared that the nation would never balance the budget by adopting measures which reduce the national income, for the simple reason that by recklessly abandoning and preventing activities like building the Government is throwing on the social services an enormous burden of new unemployment which has to be paid for out of taxation—taxation, the yield from which is automatically reduced every time a man goes out of a job.

And why is this curious course being followed? The answer is because, according to the Dismal Science, Industry must be cut to fit Money. Money—the Procrustes bed of Money—is so short that the only way to stop Industry's feet sticking out at the bottom into the cold air of debt is to cut off Industry's head. According to Sir Josiah Stamp, a quarter of the labour and plant of the country are idle.

And what is Money? Money is a token. It is an emblem, an emblem of Industry, invented because it is easier to carry about emblems than chunks of machinery or the products thereof.

So what the Dismal Science is doing—and we may as well enjoy the joke—is to scrap the machinery in order to make the exchange of emblems safe. Or—to borrow from Mr. Eimar O'Duffy a simile which he has borrowed from Mr. Chesterton—the Dismal Science is in the position of a nurse who, finding a particular food does not suit the baby, instead of throwing away the food, throws away the baby.

However, the contortions of the Dismal Science provide a knot which, as the popular song says of marriage, even Houdini can't untie. If the reader is not a professional economist, we would merely ask him to bear the preceding remarks in mind when he wrestles in the following articles with the thorny question of "Reckless Saving."

We do not wish to imply that the only alternative to reckless saving is reckless spending. The whole aim of this issue is to show that money must be wisely, carefully, grudgingly spent, only after the most careful plans have been laid.

That is the whole point: the laying of careful plans.

As we go to press the Russian Five-Year Plan comes to an impressive if rather stealthy end. And at the same time Britain's one executed example of national planning, inaugurated over a decade ago, comes to life. The Grid.

About the Grid much will be found in the pages which follow. Whether the moral that is drawn for the Building Industry by our various distinguished contributors is a sound one the reader will decide, but while on the subject of planning we would draw attention to the distinction made by Sir Basil Blackett (on page 61) between *Planning*, the dynamic principle, and the *Plan*, the static thing.

To paralyse initiative or flexibility by imposing on the country a cast-iron plan would merely be to repeat in dead black all the dark errors we have already committed and paid for heavily, for it is a mistake to suppose that Plans are the perquisite of a depraved

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[*] With acknowledgments to the "New" Art of Technocracy.

Marxian psychotechnic, and that England never had one.

Laisser-faire was a Plan. And a pretty cast-iron one, too.

What we are in need of is some *planning*. The *will* to plan. With the help of the Building Industry, which is, by its nature, a planning organism, we shall get it, and not before it is wanted. It seems that the time is approaching when we must deliberately say to ourselves :

" *Let us reorganize—or disintegrate.*"

NEWS & TOPICS

PISCES

CARLTON House Terrace and Regent Street, being on Crown Lands, are under the direct control of the Department of the Civil Service which used to be called Woods and Forests. This department is answered for in the House of Commons by the Minister of Agriculture and Fisheries. Can it be a pure coincidence that the recreations of Mr. A. S. Gaye, the Permanent Commissioner, as given in *Who's Who*, are " Fishing and Gardening," or is it that his devotion to the salmon-reaches of Carlton House Terrace and the neat shrubberies of Regent Street pursues him even to his recreations ?

*

ANOTHER BRIGHT OPERA-TION

It has been suggested that a new Covent Garden Opera House might be built over the site of the Duke of York's Steps and Column. I agree that it might, but I think it would be a calamity as great as that which now threatens the entire Terrace.

*

The architectural setting of the Column, itself one of the best proportioned monuments in the country, is a work of the very highest merit. We have no other design in which the possibilities inherent in the play of different levels and the contrasts between void and solid and light and dark materials are more happily exploited. Such examples of civic art happen but rarely, and are the outcome of circumstances impossible to re-create. Pictures will continue to be commissioned, and books written, but only special providential dispensations give us a Duke of York's Column with such a setting. To destroy it would be a sin against the generations.

*

WORK FOR ONE THOUSAND MEN

As this page goes to press I receive a letter which confirms Mr. Randolph's argument on p. 65 to the effect that the value of the Grid lies not alone in the distribution of cheap power but in the constructional work it gives outside the electrical industry. It reads :—

> We hasten to give you the accompanying information concerning a large contract which has just been placed with the well-known constructional engineering firm Braithwaite & Co., Engineers, Ltd. This comprises welcome news as regards the employment of a large number of men over an extended period, and is, in fact, a noteworthy achievement in the heavy industries.
>
> *
>
> The Swansea Borough Council has placed with Braithwaite & Co., Engineers, Ltd., of Westminster, West Bromwich, and Newport, a contract for the supply and erection of over 6,000 tons of structural steelwork for its new large power station. The work, which will be completed within 12 months, will provide employment for about 1,000 men for that period.

*

NO WHITE MARBLE FOR GRAVESTONES

Some bad things *do* come to bad ends. In recent conversation with a member of the marble trade I listened to a tale of woe concerning the obduracy of the enlightened clergy who forbid the use of white marble for gravestones. It seems that the prohibition has assumed dimensions formidable enough to warrant some firm action on the part of the trade, since persuasion and derision had been productive of nothing helpful.

*

I advised my friend to take an interest in some English stone quarries and some competent designers. His answer was granite; which goes to show that in this life one hill surmounted only brings into view another. For if we attack Aberdeen granite we are of course guilty of lack of patriotism—until such date as Scotland reassumes its sovereign rights.

*

THE ROYAL GOLD MEDALLIST

On Monday night the announcement was made that the Royal Gold Medal for the promotion of architecture is to be presented to Sir Charles Reed Peers, Kt., C.B.E., F.R.I.B.A., Chief Inspector of Ancient Monuments.

*

This award recognizes the work of Sir Charles and that of an extensive body of enlightened people determined that this rapidly changing age should not be bereft of what is left of a wealth of fine and interesting monuments of the past.

*

Sir Charles controls a Government department that contributes to architecture upon a generous scale. Quite recently a further scheduling of buildings was announced.

THE ARCHITECTS' DIARY

WEDNESDAY, JANUARY 11

R.I.B.A., 9 Conduit Street, W.1. Exhibition of the prize drawings for 1932. 10 a.m. to 8 p.m. (Saturdays 10 a.m. to 5 p.m.). Until January 28. **10 a.m.**

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 1933. 10 a.m. to 6 p.m. Until March 11. **10 a.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch. " Structures with Welded Connections." By Charles Donald, B.SC., A.M.INST.C.E. **7.30 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Gt. George Street, Westminster, S.W.1. Students' Meeting. " Impact Stresses in Bridges—Retrospect and Present-day Aspect." By Conrad Gribble, A.M.INST.C.E. **6.30 p.m.**

THURSDAY, JANUARY 12

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. " A River Wall in Reinforced Concrete." By Andrew Hood. **6.30 p.m.**

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Visit to Broadcasting House, Portland Place, W.1.

FRIDAY, JANUARY 13

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce, 95 New Street, Birmingham. Debate on " Reinforced Concrete *versus* Structural Steelwork." H. J. Morris, A.M.INST.C.E., will speak for structural steelwork ; F. C. Bridge, A.M.INST.C.E., for reinforced concrete. **6.30 p.m.**

SATURDAY, JANUARY 14

Sunrise, 8.1 a.m. Sunset, 4.18 p.m.

MONDAY, JANUARY 16

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. " Should Monuments be Removed from Westminster Abbey." By the Very Rev. The Dean of Westminster. **8 p.m.**

TUESDAY, JANUARY 17

LONDON SOCIETY. Visit to the Middle Temple. Assemble at Middle Temple Lane, E.C.4. 3 p.m. Sir Alfred Tobin will conduct the party. **3 p.m.**

and, as we know, this is but a sign of a progressive policy of preservation and rehabilitation, for which we are, as architects, extremely grateful, and for which we can best render thanks by honouring the whole body of preservers in the person of Sir Charles Peers.

*

BENEFITS IN STORE ?

I take my comfort where I find it, these days. And, lo, a grain in the pages of *Old Moore*—or " *Foulsham's* . . . the original and clean Almanack," as it somewhat unfamiliarly, but quite reasonably, describes itself. For what says he of July-to-be ?

*

" It is a good month for the building trade."

*

Perhaps it usually is. But on the next page, in the column of predictions for August, there is something more positive :

*

" . . . the steel industry will benefit through large orders."

*

In August ! This is but January, and already the steel industry is in sight of one such benefit. Come, come ! Let us take heart. If all this, my friends, does not portend yet more building, let me never trust print again.

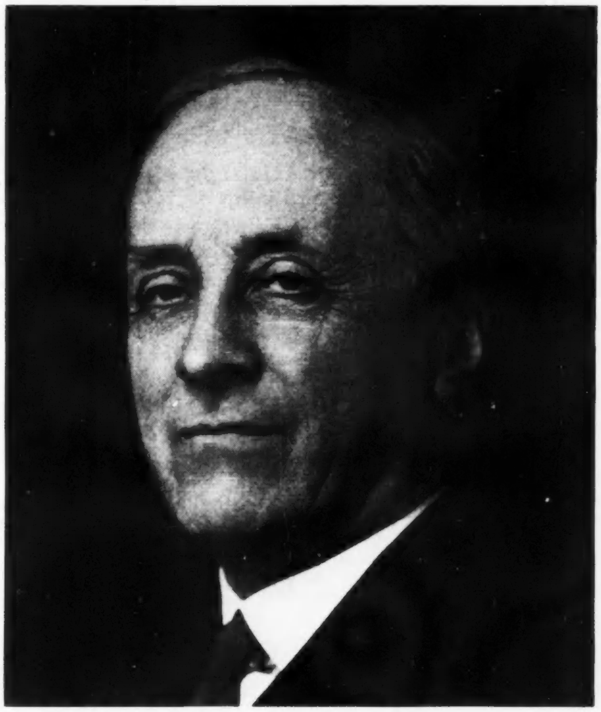
*

And so, a Happy New Year to you all—not least to those correspondents the receipt of whose letters has enlivened my labours.

ASTRAGAL

[NOTE : *Astragal's review of* " *Last Year* " *appears on pages 87-88.*—ED., *A.J.*]

THE ROYAL GOLD MEDALLIST, 1933



Sir Charles Reed Peers, Kt., C.B.E., F.B.A., M.A., F.R.I.B.A., who, it was announced at Monday's meeting of the Institute, has been nominated by the Council of the R.I.B.A. as the Royal Gold Medallist for 1933. He is President of the Society of Antiquaries, being the first architect to occupy the presidency of this Society ; and has been Chief Inspector of Ancient Monuments for H.M. Office of Works since 1913. He is now recognized all over the world as the foremost authority on his particular subject—the preservation of ancient buildings.

OTHER NEWS ITEMS

Financial Assistance for Housing

Sir Raymond Unwin is calling a private conference to be held next Friday, January 13, in order to discuss proposals for creating a National Public Utility Organization, with the object of obtaining financial assistance for housing, under the Government's new Bill.

The scheme is an ambitious one. There have been at work for the past few years over 250 Voluntary Housing Societies, but some have disappeared and others have become bankrupt. To organize successfully such a Society as Sir Raymond outlines in somewhat vague terms in his memorandum on " The Housing Problem for 1933 " means, in the first place, considerable capital, and in the second place skilled administrators. There is talk of raising £2,000,000 for the new venture, but to administer this will need brains and experience, if the money is not to be lost. There is much interest in the question as to who will be Sir Raymond Unwin's associates in this new venture.

Miniature Hospital

The exhibition of the King's Fund Miniature Hospital was opened at the Building Centre, 158 New Bond Street, by the Prince of Wales on Friday last.

The model, designed by Mr. Lionel G. Pearson, F.R.I.B.A., and constructed by Messrs. Humphreys, Ltd., is to a scale of ¾ in. to 1 ft. It is approximately 12 ft. long, 4 ft. wide, and 12 ft. high, and is replete with wards and operating theatre, fully furnished with figures representing doctors, nurses, patients, etc. There are also miniature portraits of Florence Nightingale, Lord Lister, Lord Dawson of Penn, and Lord Moynihan, by Mr. Alfred Praga.

The Prince of Wales, at the opening ceremony, said thanks were due not only to the architects and the constructors but to a large number of firms, artists and private individuals who had contributed to the construction and equipment of that unique model. He felt sure that wherever it was shown it would not only arouse the greatest interest in the organization of our modern hospitals but make people realize what splendid work our hospitals were doing for the benefit of the community.

London County Hall

The erection of the fourth and final section of the London County Hall is now on the point of completion. The event is to be celebrated by an afternoon party, given on January 27 by Mr. Angus N. Scott (chairman of the Council) and Mrs. Scott. Owing to existing financial conditions, the Council do not propose to arrange any official ceremonial opening of the new wing completing the whole.

The design of the building by the late Ralph Knott—who died in 1929—was selected in an international competition in 1912. Work was started early in 1913 and, after a lapse in building operations during the war, the main section was finished in 1922. Since Knott's death,

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Quotations in this issue from Planned Money, *by Sir Basil Blackett, are by the courtesy of the author and the publishers (Constable & Co. Ltd.); and from* Life and Money, *by courtesy of Eimar O'Duffy, and the publishers (Putnam).*

his partner, E. Stone Collins, has carried on the work. The total cost of the whole project is approximately £3,900,000, of which the final section is estimated at £717,000.

Forthcoming Lectures

The Committee of the London and Home Counties Branch of the Faculty of Architects and Surveyors has arranged for the following programme of lectures to be given at the Lecture Theatre of the Science Museum, Exhibition Road, South Kensington, at 7 p.m., by the courtesy of the Director, Colonel Sir Henry Lyons, F.R.S., during the remainder of the present Winter Session :—

January 18 : "Some Ancient Castles and the Way their Occupants Lived." By Sir Charles C. Allom, F.R.S.A., P.F.A.S.

February 1 : "Fungal Diseases of Timber." By J. Ramsbottom, O.B.E., M.A., Keeper of the Bontany Dept. at the Natural History Museum.

February 17 : "The Work of the British Non-Ferrous Metals Research Association for the Building Industry." By G. L. Bailey, M.SC., who is the Development Officer of that Association.

March 31 : "Copper in Architecture : Some Chemical and Other Aspects." By W. H. J. Vernon, D.SC., PH.D., F.I.C., of the Chemical Research Laboratory at Teddington.

April 7 : "Mastic Asphalts used in the Building Industry : Their properties, manufacture, testing and causes of failure under certain circumstances." By A. Wolf, Lecturer in Oil and Asphalt Technology at the Imperial College of Science and Technology. 6 p.m.

Following is a list of forthcoming lectures to be held at the L.C.C. Central School of Arts and Crafts on Fridays, between 6 and 7 p.m.

January 27 : "General Principles in Regard to the Treatment of Ancient Buildings." By A. R. Powys, F.S.A., A.R.I.B.A.

February 3 : "Ancient Bridges of England." By E. Jervoise, M.I.C.E.

February 10 : "Manor Houses." By R. Minton Taylor, F.R.I.B.A.

February 17 : "Windmills." By Hugh Vowles.

February 24 and March 3 : "Technical Methods to be Adopted in the Repair of Old Buildings." By A. R. Powys, F.S.A., A.R.I.B.A.

All except the first lecture will be illustrated by lantern slides. Admission free. No tickets required.

R.I.B.A.

ROYAL GOLD MEDALLIST

At the general meeting of the Institute, held on Monday night, it was announced that Sir Charles Reed Peers, Kt., C.B.E., F.R.I.B.A. (a portrait of whom is reproduced on the preceding page), has been nominated for the Royal Gold Medal for 1933.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council:

Schools : On the recommendation of the Board of Architectural Education the following decisions were made :—

a : *School of Architecture, Glasgow.* That the recognition of the Degree Course and the Diploma Course for exemption from the R.I.B.A. Final Examination be continued. That the recognition of the Certificate Course for exemption from the R.I.B.A. Intermediate Examination be continued. *b* : *School of Architecture, University of Cambridge.* That the recognition of the three years' course (leading to the Final Examination in Architectural studies for the B.A. degree at Cambridge University) for exemption from the R.I.B.A. Intermediate Examination be continued.

c : *School of Architecture, The Polytechnic, Regent Street, London.* That the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued. *d* : *Armstrong College, Newcastle-upon-Tyne.* That the recognition of the three-years' Diploma Course and the 3 years' Degree Course for exemption from the R.I.B.A. Intermediate Examination be continued. That the four years' part-time Certificate Course be recognized for exemption from the R.I.B.A. Intermediate Examination. *e* : *The School of Architecture, Edinburgh College of Art.* That the recognition of the Diploma Course for exemption from the R.I.B.A. Final Examination be continued. That the recognition of the Certificate Course for exemption from the R.I.B.A. Intermediate Examination be continued.

The R.I.B.A. Maintenance Scholarships in Architecture : The Committee report that they have granted renewals of their scholarships for the year 1932–1933 to :—

Ralph Dickinson (£100) (School of Architecture, Birmingham). M. G. Gilling (£100, Artists' General Benevolent Institution Maintenance Scholarship) (Liverpool School of Architecture, University of Liverpool).

The Committee report that they have made the following awards :—The R.I.B.A. Fourth and Fifth Year Maintenance Scholarship of £100 a year to A. M. Irvine of the School of Architecture, Robert Gordon's Colleges, Aberdeen. The R.I.B.A. ordinary Maintenance Scholarship of £100 to E. F. Ward of Northampton. The Ralph Knott Memorial Maintenance Scholarship of £45, tenable at the Architectural Association School of Architecture, to R. L. Townsend.

Rome Scholarship in Architecture, 1930 : The Board reported that the Executive Committee of the British School at Rome had adopted the Faculty of Architecture's recommendation in favour of the extension of Mr. W. G. Holford's Scholarship for a third year.

Sir Arnold Thornely :

The hearty congratulations of the Council were sent to Sir Arnold Thornely (F.) on the honour of knighthood which has been conferred upon him.

Gift of Drawings by Georges Bouet :

The cordial thanks of the Council were sent to Mr. R. Fielding Dodd (F.) for his generous gift of drawings by Georges Bouet.

The Architects' Unemployment Committee :

A special vote of thanks was passed to Mr. Percy W. Lovell for his services to the Architects' Unemployment Committee.

Membership of Committees : Examinations Committee.

On the recommendation of the Board, Mr. Edward Maufe (F.), one of the two R.I.B.A. representatives on the Town Planning Joint Examination Board was appointed to serve on the Examinations Committee.

Salaried Members Committee :

Mr. C. Bertram Parkes (L.) was appointed to serve on this Committee.

Slum Clearance Committee.

Mr. T. S. Barnes (A.) was appointed to serve on this Committee.

Social Committee.

Mr. S. E. Dykes Bower (A.) was appointed to serve on this committee.

Allied Societies' Conference :

Mr. W. F. Hedges (F.) was appointed to serve as an additional member of the Allied Societies' Conference under the terms of Bye-law 81 (f).

Transfer to the Retired Members Class : The following members were transferred to the Retired Members Class :—

As Retired Fellows : Messrs. George Frederick Lake and Edward John May. *As Retired Associate :* Mr. John England Jefferson. *As Retired Licentiates :* Messrs. Benjamin Sagar Dean and Samuel George Walker.

Resignations. The following resignations were accepted with regret :—

Messrs. James Ransome (F.), John Arthur Carter Moffat (A.), William Auger Smith (L.), and John Russell Whitaker (L.).

COMPETITION NEWS

SOUTHWARK TOWN HALL

Is the Southwark Borough Council weakening in its proposal to carry out the new Town Hall? It would seem that such is the case, since, at a meeting of the Council held last week, it was agreed to pay Mr. Cowles-Voysey, whose design was placed first in the competition, £1,445. This sum was claimed by him under the original agreement with the competitors, by which, if the Council did not proceed with the scheme within twelve months, the winning competitor would receive 1½ per cent. of the first £50,000 of the total estimated cost and ½ per cent. of the remainder. As twelve months have elapsed since the award (states *The South London Press*), and the Council have decided to postpone further consideration of a scheme until April, Mr. Cowles-Voysey sent in his account.

It will be recalled that after the Council had expressed their preference for the design of Messrs. Yates, Cook and Darbyshire, Mr. Cowles-Voysey was given the option of collaborating in their scheme or of retiring and accepting a quarter of the fees paid to the firm erecting the building.

Thus, as Mr. Cowles-Voysey has already received £200 premium, the Council have now paid him £1,645 for a design over which they have expressed a preference for another.

Competitions Open

February 1.—The city of Stockholm invites designs for a town plan for the part of the town called Lower Norrmalm. 60,000 kronors (£3,077) in prizes, 1st premium, 20,000 kronors (£1,025).

May 31.—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

Full Particulars of the above competitions were published in our issue for December 7.

The history of reconstruction since the War records many failures as well as successes, and a critical temper has superseded the early optimism which put too much reliance on size and volume and paid too little heed to conservative finance. Nevertheless, the industrial age is transitional, and an organization suited to the twentieth century must be a condition of survival. . . . The portent of Russia cannot be ignored. Under a Communist dictatorship, Russian industry is being reorganized, with, it is true, variable results ; but nevertheless the State direction of the industry and the State control of the foreign trade of a vast territory are facts of enormous moment to the rest of the world and particularly to its principal trading nation. British methods and British organization must assert their superiority over those of an ill-disguised tyranny if it should succeed, and in any event they must ensure the prestige of our manufactures.

THE TIMES, April 14, 1932.

FOREWORD

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[By SIR RAYMOND UNWIN]

President of the Royal Institute
of
British Architects

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I HEARTILY welcome the Special Number of THE ARCHITECTS' JOURNAL, which you are devoting to the need for planning on a wider scale. The architect's training naturally leads him to take for granted that the need for planning and designing must be as evident to other people, who have been differently trained, as it is to him. Experience shows that those who are trained to carry out projects put before them, or to carry on business activities in which their attention is concentrated on each transaction, frequently have no such realization of the importance of planning.

The Building Industry as a whole is becoming fully conscious of this need to plan and organize its several sections for fuller co-operation. There is greater appreciation of the part which each section plays, whether as designer, operative, or maker of materials. This mutual understanding should lead to greater efficiency ; but you rightly point out that there is need for planning on a wider scale, that the Building Industry may be given the opportunity to play its part more fully in the creation of efficient and comely buildings and towns. There is need, moreover, for the statesman and the financier to realize more fully that planning in time as well as in space is important, and that now is the time to build, and particularly to overtake our housing shortage, when credit and materials are plentiful and cheap, and when labour is not only superabundant, but is costing the community a very heavy outlay for the privilege of maintaining the possessors of all the skill needed, doing nothing, when they might just as well be added to the capital value of the country.

ECONOMY

There are today many well-wishers of their country who believe that the most useful thing which they and their neighbours can do to mend the situation is to save more than usual. If they refrain from spending on buying a larger proportion of their incomes than usual, they believe that they will have helped unemployment. If they are members of Town or County Councils they believe that their course at such a time as this is to oppose expenditure on new amenities or new public works. Now, in certain circumstances all this would be quite right. But in present circumstances, unluckily, it is quite wrong. It is utterly harmful and misguided—the very opposite of the truth. For the object of saving is to release labour for employment on producing capital goods such as houses, factories, roads, machines, and the like. But if there is a large unemployed surplus already available for such purposes, then the effect of saving is merely to add to this surplus and, therefore, to increase the number of unemployed. Moreover, when a man is thrown out of work, in this or any other way, his diminished spending power causes further unemployment amongst those who would have produced what he can no longer afford to buy. And so the position gets worse and worse in a vicious circle.

For what we need now is not to button up our waistcoats, but to be in a mood of expansion, of activity—to do things, to buy things, to make things. Surely all this is the most obvious common sense. For, take the extreme case. Suppose we were to stop spending our incomes altogether, and were to save the lot; why everyone would be out of work. And before long we should have no incomes to spend.

J. M. KEYNES

[*In "The Listener" for January 14, 1931.*]

There is always a moment in political life when original sin emerges to damn even the brightest intellect. In 1920, it took the form of the Geddes Axe, which made quite certain that the industrial leadership of the world, which was then within the grasp of this country, would be effectively transferred to the United States and ultimately to Germany. In 1931, it took the form of the May Report, which again, if I read the situation correctly, has made it quite certain that the financial and commercial leadership of the world will also be transferred to the United States. The economic historian, looking back at these years, will probably brand the Geddes and May Reports as the worst examples of reversion to type recorded in history.

HUGH QUIGLEY

[*In "Industrial Revival through Regional Planning."*]

PART I: BUILD NOW

THE NEW FUNCTION OF THE ARCHITECT

[By HOWARD ROBERTSON]

Chairman of
The Public Relations Committee of the
Building Industries National Council

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A good architect or artist is of far more importance at the moment than even a good priest.
Stanley C. Ramsey.

ARCHITECTS in England are just now very much unemployed. But the situation is worse in America. A talented young draughtsman now in New York writes that many of the big offices are practically closed, and their staffs "liquidated"; and that the heads of the firms have gone to the country, which is cheaper to live in, or to Europe, which is cheaper still.

One of these important architects, recently in Europe, not to live, but on business—he is engaged on one of the few large building projects which are going forward—tells the same story; but he suggests that if architecture is once again to revive, this will necessitate a change of outlook and method on the part of the architect.

Men who for years have enjoyed large and lucrative practices are, my informant says, wringing their hands and bewailing the departure of the rich patron. They are waiting for him to return and to supply them with the sort of work which they had before. But this particular architect suggests that such a policy is all wrong; that the architect today must go out and create work for himself by utilizing his capacity to analyse problems and solve them, by proving that his power to plan individual buildings can be extended to planning in general, to planning ahead.

To put his own preaching into practice, my American architect friend is tackling the city housing problem. Not, as he explains, by drawing up schemes in the most approved Continental manner, embodying lavish site planning, gardens, pools and all the amenities which everyone likes but few can afford, but by viewing his problem as that of the minimum conceivable shelter. The planning is of the simplest unit type; the structure is being schemed by technicians to achieve the utmost economy. And every non-essential, such as pleasant things like cupboards, is being wiped out. A cold, hungry and shelterless family would rather have a shelter home without cupboards than none at all. And my friend is even contemplating a flat plan so arranged as to make it possible, if necessary, to do without internal doors, which cost money and form quite an item in a large-scale scheme.

This economic project is perhaps an extreme case; and naturally there are plenty of arguments pro and con the minimum dwelling. But it illustrates an effort to face the facts, to try to build to a cost, providing a rent which families can pay; to produce building which, if not profit-making, is at least sufficiently revenue-producing to support its first costs and overheads.

There are, in England, many architects who are able and willing to serve the community by putting their brains and planning ability to work to help social welfare and industry. They have, in the life of the nation, a particular asset not possessed in like degree by any section of the community. They know how to plan. And they know also how to analyse as well as synthetize. They represent, therefore, at a time when the talent for analysis and planning is woefully absent, a source of potential strength, which is not, alas, being utilized.

It is not utilized because the architect, hampered as he is by his professional status, cannot go out into the worlds of banking, business and industry and sell himself and his ideas; and because the leaders in these worlds do not realize that the architect is today in a position to be helpful far beyond the limitations of the building contract and its supervision.

Without attempting to answer criticisms of the architect's failure in the past to fulfil all the hopes placed in his power to act skilfully and economically, it is entirely reasonable at this moment to proclaim a high state of competence within the profession. The architect knows the possibilities of structure better than ever before ; he recognizes the scope of engineering and of engineers ; he has behind him a well-organized industry—tomorrow to be still more powerfully knit under the leadership of the Building Industries National Council ; and he has, to reinforce his knowledge of materials, the Government Department of Scientific and Industrial Research, with its continuous work of investigating not only materials of structure but a host of hitherto unexplored problems such as those of illumination.

The client of today should be equally progressive. He should realize that building is not merely a matter for a builder and a surveyor. It may be only that ; but if, as a result, it is a building badly placed, served by awkward or inadequate approaches, badly lit and wastefully planned, it will prove to be not only unremunerative but a liability. There are many such today.

To see the results of planning and thinking ahead, pass through the factory belt of the Great West Road, and note how organized effort has built up an efficient nucleus of factories in which men and women can give of their best because their work has been planned for. And see how much finer æsthetically are these bright and well-grouped buildings than the wretched rows of domestic dwellings in the design of which the architect-planner has had no say.

The architect today should study the problem of the factory owner, of the hotel keeper, of the company director, and should be able to advise him not only in his building but in his business ; for the welfare of the one is bound up with the other just as much as is the happiness of a working man with his home. The architect does study these problems of business, and he studies building finance to a far greater extent than in the past. But he must do so still more energetically, so that he can prove by actual figures his argument that there are cases when it is better to pull down and build again rather than add another unit to a series of disjointed additions.

There is a vast work of rehabilitation to be undertaken. The fear of taking risks, the inability to look ahead or to follow the progress of our competitors has landed us in England with acres of obsolete factories, miles of potential slums, and streets of offices which have been out of date for decades. All these will have to be swept away, for materially they are a hindrance to revival. The investing public will have to distinguish between the potential asset of the modern building and the liability of the obsolete building. The architects, jointly and singly, will have to force to the front the rôle which they feel they can—and should—play in a national effort towards rehabilitation. The Building Industry, under the ægis of its new National Council, will have to study problems of technique and economics as well as those of organization, and will have to embrace in its survey of current problems such factors as production of materials and their transport, realizing that in these lie the key to the solution of many problems of cost.

Finally, the Government will have to realize the fact that the Building Industry is too large and important to be neglected ; that it is an industry which already exports quite heavily—steel windows and sanitary ware are two good instances—and could do so still more ; and that a great store of skill and creative imagination within the architectural profession is lying neglected and untapped in a world which can do with an unlimited supply of both.

RECKLESS SAVING

[By ARTHUR HARRISON]

We are facing what might be the most difficult winter in our history. Wise and generous spending—systematic expenditure in place of unnecessary retrenchment—will do much to stimulate our trade and industry . . . Paradoxically, we have now to spend to save. Sir Harold Bellman.

THE BUILDING INDUSTRY

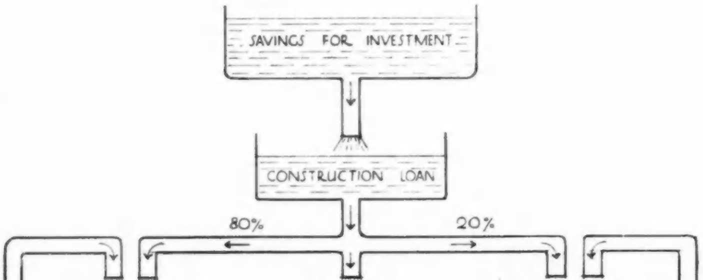
WE can no longer bandage our economic wounds with political poultices ; an industry must cure itself without appeal to old nostrums of this kind. In a period of fundamental change in economic life those industries which have co-ordinated their inner workings and have evolved a concerted policy and an ensuing plan of action are the industries which suffer the least from depression.

ORGANIZATION AND PURPOSE

The trend towards a greater measure of co-operation inside the Building Industry, and with its associated industries, shows that self-consciousness is emerging. How is this consciousness going to express itself ? What organization is needed to implement its group needs ? What are the national status and responsibilities of the Industry ? Can we devise ways and means of carrying through a national campaign for increased building through Reconstruction and through Public Works ?

A measure of co-operation has produced the important Memoranda (Nos. 1 and 2) of the Public Relations Committee of the Building Industries National Council of Review. We have the first and the second Interim Reports of the Building Industry Council. Plans are in hand for setting up an organization which shall include an Economic and Statistical Bureau as well as the Public Relations Committee, while the latter Committee is attempting to raise a fund of £15,000 with which

CIRCULATION OF PURCHASING POWER PRODUCED BY CONSTRUCTION LOAN.


SAVINGS FOR INVESTMENT
CONSTRUCTION LOAN
80%
20%
WAGES AND SALARIES
INTEREST
RAW MATERIALS SUPPLIES TRANSPORT
PURCHASING POWER
DISTRIBUTION SYSTEM
MANUFACTURING SYSTEM
PRIMARY PRODUCING SYSTEM
GROCER BAKER TAILOR BUTCHER ETC
BRICKS - WOOD WORK CEMENT-IRON & STEEL GLASS - HARDWARE PIPES - FITTINGS STONE - EQUIPMENT ETC
FARMER FORESTER MINER FISHERMAN ETC
WAGES AND SALARIES
RATES RENT PUBLIC SERVICES
SAVINGS FOR INVESTMENT
TAXES
RAW MATERIALS SUPPLIES TRANSPORT
LOCAL AUTHORITIES
LOANS
NATIONAL REVENUE

This diagram is drawn to show, in simplified and graphic form, by analogy with a system of cisterns and pipes, the main effects of the circulation of a loan through an endless circuit of production and distribution. At each point where an individual in the circuit is given and exercises purchasing power a repetition of expenditure takes place, affecting all the channels.

to carry out educational propaganda work to help the Industry.

PROPAGANDA AND OBJECTIVES

The organization to achieve the Industry's purposes is being constructed, and when this is complete the next task is to determine a policy for the Industry as a whole.

The objects of the propaganda fund are stated as "to counter by educative means the widespread and persistent assumption that the curtailment of remunerative or necessary building work is a constructive measure of public or private economy. A further objective is the proportion of comprehensive research for the purpose of making clear the position of the Building Industry in relation to national prosperity, its importance to the exporting and commodity-producing industries of this country, and its power to render the most efficient service to the process of national industrial rehabilitation."

The achievement of these objectives demands a planned national educational campaign, combined with suitable propaganda and publicity in the form of editorials and special articles in the daily press, broadsheets and circulars to influential bodies, including Local Government Authorities; in general, the creation of an efficient propaganda unit.

THE PARALLEL WITH THE ELECTRICAL INDUSTRY IN 1924

Conditions vary in detail among industries, but the general position of the Building Industry today is paralleled in many respects by that of the electrical industry in 1924. Then it was realized, after the World Power Conference, "that the electrical industry needed a central staff for economic and statistical guidance." This staff was set up, and it was in some measure due to their far-seeing guidance that the B.E.A.M.A. manufacturers urged the creation of a national power scheme, which became the remarkable Grid which is now approaching the end of its construction phase. As foreseen, the creation of the National Grid gave an enormous volume of orders to the electrical manufacturers, which enabled these firms to make a profitable showing when orders from other quarters had declined.

The National Power Scheme represents the material expression of two basic ideas. The Grid is the only nation-wide plan of its kind in Great Britain; and it has been brought about in some measure through the co-operation of the members of an industry. Admitting the advantages of electrical energy over other forms of energy in adaptability, capacity for long-distance transmission and general all-round efficiency, a large work of public education had to be undertaken in the 1924–1926 period.

PARALYTIC POLITICAL RESTRICTION

This illustration provides suggestive lines of thought for the Building Industry in its plan of development. In 1926, when the Grid plan was proposed, there was fortunately less political paralysis than exists today. Politicians of all colours were looking for means to justify themselves by creating active employment through large-scale works. They therefore seized upon the Grid as a way of salvation.

These were fortunate circumstances. The infectious disease of false economy has unfortunately spread itself over the present Government and its advisers. Deflation of a rigorous order has been practised, and a strange economics is preached of national security through reducing wages and construction! In the public interest this restriction requires strong counter-measures from united industries which have powerful reasons to show why negative national policies should be reversed. There are signs that the general public will respond to such a movement, for the barrenness of such negative policies has become very apparent.

Some good might come from attempting to define what is meant by economy. Instead of the popular politician's idea of reducing all forms of expenditure towards zero point we can substitute the more intelligent concept of "obtaining the most beneficial result from the most efficient means," i.e., wise spending, at the right time, in the right way. If this definition signifies anything, it signifies to the Building Industry a National Reconstruction Plan.

The carrying out of an intelligent construction programme will add to the national wealth of Britain and maintain the circulation of purchasing power throughout the country. The Government would recognize that the time for reconstruction is now, not only because of the reasons we have adduced, but because labour costs and raw material prices are at very low levels. *To postpone necessary reconstruction until prices have risen is the negation of true economy.* Today prices are low, production costs are low and the Building Industry has developed highly efficient organization methods.

"Prosperity through Reconstruction" is a slogan that might be adopted without exaggeration. What are the facts about spending money on building activity?

THE BUILDING INDUSTRY'S NATIONAL IMPORTANCE

Few people realize that the Building Industry is the most basic industry in the country in the extent of its employed men, in the extent of its dependent industries, in the creation of durable capital values, in the creation of new sources of public revenue and, above all, *in the circulation of purchasing power which maintains the home market.*

Full publicity must be given to these dominant facts. The most striking figure brought out by research into the Building Industry's national contribution is that "80 per cent. of the total cost of its products is disbursed through the medium of weekly wages."

These wages are spent on the everyday needs of men and women, and sustain the producers and distributors of these goods. In addition, the Industry obtains practically all its raw materials in this country, and hence maintains, by its activity, fellow industries

• PRIME FACTS •
IN
THE BUILDING INDUSTRY

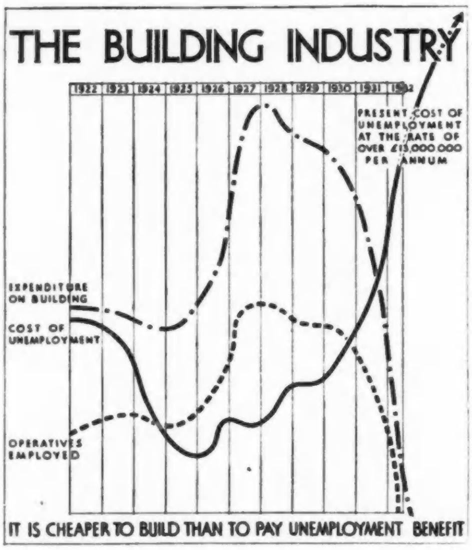
A COMPARISON OF PRICES

PRICES IN 1932 : AND BEFORE

Wages and Materials—	Per	1932	1930	1927	1914
Mechanics' wages	hour	1/7½	1/8½	1/9½	—
Labourers'	..	1/2¾	1/3½	1/4½	—
Transport :					
Hire of 5-ton lorry and driver	..	5/6	6/-	7/6	—
,, ,, 3- ,, ,, ,, ,,	..	4/6	5/-	6/6	—
Grey stone lime	ton	42/-	48/6	57/-	—
Blue lias lime	..	36/6	50/6	56/-	—
Portland cement	..	46/-	46/-	58/6	*31/-*
Thames ballast	Y.C.	6/9	8/9	11/-	*5/6*
Building sand	..	8/6	10/6	13/-	*7/-*
Bricks :					
Flettons	1,000	58/-	61/6	63/6	—
Stocks, 1st quality	..	91/-	98/6	107/-	—
,, 2nd ,,	..	82/6	92/6	101/-	—
Red brick facings	..	147/6	176/-	190/-	—
Breeze partition blocks, 3 ins.	Y.S.	2/2	2/3	2/9	—
Stoneware drain pipes, 4 ins.	F.R.	-/10	1/1	1/1	—
Iron drain pipes, 4 ins.	..	1/6	2/3	3/3	—
Portland stone	F.C.	4/6	4/6	4/6	—
Bath stone	..	2/11	2/11	3/-	—
York stone	..	6/9	6/9	6/9	—
Welsh slates, 20 ins. × 10 ins.	1,000	375/-	405/-	540/-	—
Roofing tiles, machine made	..	90/-	100/-	130/-	—
Carcassing timber	F.C.	2/2	2/6	2/9	—
Joinery deals As 1-in., F.S.	—	-/5	-/5½	-/6½	—
Austrian wainscot oak	..	1/6	1/8	1/10	—
Honduras mahogany	..	1/3	1/8	1/10	—
Teak	..	1/3	1/7	1/9	—
1-in. deal flooring	Sq.	22/-	26/-	29/-	—
Rolled steel joists	cwt.	10/9	9/6	12/6	*8/6*
Reinforcing rods	,,	8/6	9/-	13/3	*8/9*
4-ins. C.I. rain water pipes	F.R.	-/10	-/10	1/3	*-/10*
4-ins. C.I. ½ rd. eaves gutter	,,	-/6	-/6	-/7	*-/5*
Milled sheet lead	cwt.	20/-	24/-	44/6	*21/-*
4-ins. C. I. L.C.C. soil pipe	F.R.	1/1	1/3	1/8	*1/-*
Keene's cement	ton	110/-	115/-	115/-	*95/-*
21-oz. sheet glass	F.S.	-/3⅜	-/3½	-/5	*-/2*
¼" pol. plate glass n/e 4 ft. 0 in. sup.	..	2/4	2/6	3/2	*-1/6*
Linseed oil	gall.	2/2	3/3	3/7	*3/-*
Ready mixed paints	..	12/6	13/6	15/6	*7/9*
Copal varnish	..	13/-	13/-	18/-	*13/-*
Measured Works—					
Dig and cart n/e 5 ft. 0 in. deep	Y.C.	9/-	10/-	12/6	—
Portland cement concrete in foundations	Y.C.	29/6	33/6	38/-	—
4-ins. stoneware drains laid complete	F.R.	1/6	1/8	1/9	—
4-ins. C.I. drains laid complete	..	4/-	5/6	6/6	—
Fletton brickwork in cement	rod	600/-	680/-	720/-	—
Slate damp course	F.S.	-/10	1/-	1/-	—
Portland stonework, fixed complete	F.C.	20/6	21/6	21/6	—
Bath stonework, fixed complete	..	14/6	15/6	15/6	—
Welsh Countess slating	sqr.	66/-	85/-	87/6	—
Roof tiling, machine made	..	55/-	80/-	97/-	—
Centering to concrete floors	..	45/-	52/-	57/6	—
Fir fixed as wall plates	F.C.	4/6	5/-	5/9	—
Fir framed in floors	..	5/9	6/9	6/9	—
Fir framed in roofs	..	7/3	8/3	8/6	—
2-ins. 4-panel sqr. framed doors	F.S.	2/10	3/6	3/6	—
Rolled steel joists, fixed	cwt.	16/-	17/-	18/-	*14/6*
Milled lead and labour in flats	..	34/6	40/6	72/6	*30/6*
1-in. lead service pipe and fixing	F.R.	2/1	2/2	3/3	*1/6*
Render, float and set in lime and hair	Y.S.	2/6	3/-	3/-	*1/8*
21-oz. sheet glass and glazing	F.S.	-/7	-/8	-/11	—
Twice whiten ceilings	Y.S.	-/6½	-/8	-/8	—
Twice distemper walls	..	-/10	1/-	1/-	—

The figures given above indicate the fall in prices of building materials and wages and of work executed, during the past three and five years. We do not say that in keenest competition lower prices would not be obtained, for, owing to the condition of industry, work is being undertaken and prices for materials are being accepted below what is considered will bring a reasonable return, but, even on this conservative basis, the figures do show a very marked decline in building costs.

From careful enquiry of merchants in all trades, over the country, we are convinced that prices have reached a low-water level which will not be lower for years to come.



producing for both home and export markets.

THE LONG VIEW ON PUBLIC WORKS

These facts are needed as a corrective to the type of statement made recently by Mr. Neville Chamberlain during a debate on public works construction. He quoted figures to show that the raising of a large loan for road construction had resulted in the employment of only a certain number of men. In saying this he took into account only the men directly employed on the construction of the road and ignored the numerous associated activities which were maintained because these men were working to build the road. He ignored the endless values of employment activity created by that loan in the men who made the raw materials to build the road; in the men who transported these materials; in the men and women distributing, stocking and producing the food and clothing needed—the process can be extended in every direction, for money has been put into circulation. Public services, transport, production—every economic activity has been helped because the loan has been used to create public works, and these represent basic expenditure repeating itself in a myriad forms throughout the country.

This is the effective answer to those short-sighted critics who object to loans for public works on the grounds of alleged economy.

By emphasizing facts of this importance public education may be developed, and this work must include information to important industrialists, speculators and investment corporations, as well as to Local Government Bodies, Chambers of Commerce and Members of Parliament.

BUILDING, THE GREAT EMPLOYER

We have examined the repercussions of expenditure on public works. What are the employment responsibilities of the building industry?

In July, 1932, it contained 339,890 unemployed, equal to 18.2 per cent. of the total number of insured people. This shows considerable worsening from the conditions in September, 1931, when there were 255,190 unemployed, equal to 14.9 per cent. of the total number of insured people.

These unhappy figures mean unemployment benefit payments of huge size, for the public charge per man-worker is between 20 and 27 shillings per week. A point of importance to note is the fact that July is a very favourable month, seasonally, for active building operations, and it is the winter months which show the maximum unemployment in any year. The situation is terribly urgent.

To realize the magnitude of one's own industry is to set in motion a course of action to assist it. Building, Public Works Contracting and Constructional Engineering are responsible for employing 1,158,380 men and women. Add to this subsidiary industries, directly and almost entirely dependent upon building and public works, and we obtain a further 407,170. In addition we have 166,340 in other industries, directly and to a substantial extent depending upon building and public works. Finally there are other industries indirectly affected to a substantial degree which employ 722,840. This brings up a total of about 2½ million people affected by the great Industry under review, and we should not forget another two million workers affected indirectly who are employed by the electricity, transport, gas and water industries. These data illustrate the unsoundness of confining attention to the directly-employed labour on any public construction, whether it is a road, a group of buildings or a dockyard.

FRANCE'S PUBLIC CONSTRUCTION PLANS

In contrast to Great Britain we find in France and the U.S.A. a definite policy of increasing purchasing power in the home market through expenditure on public works and on national productive loans.

On Tuesday, December 6th, the French Government announced its 1933 national equipment programme, to include the issue of £28½ million for public works construction.

This loan includes about £9½ million for roads and bridges, £2½ million for waterways and inland harbours, and £5¾ million for hydraulic power works. The French plan undertakes the widening of roads from 21 ft. to 30 ft., abolition of level crossings where feasible, straightening of dangerous turnings and rebuilding of bridges. In addition the French canal system is to be extended and improved.

France is in financial difficulties with her budget, but she is not losing her sense of proportion about maintaining her creative workers through judicious expenditure; the long-term view is, fortunately for the French constructional industry, being upheld. The French are realists and understand the economics of their fundamental industries. They realize that the "more economy" cry which is alleged to secure the release of more money for investment in industry, is a fallacy. The money for investment is already available; we need to help general industry towards a state of profitable operation so that it will attract the investor. Since the Building Industry's activity is so fundamental to this purpose, restriction is a dangerous policy.

WHY BUILDING MUST BE MAINTAINED

We need to make known to the nation the value of maintaining the active life of the Building Industry.

Analysis has shown that out of every £100 spent on building projects £80 is spent on wages and salaries in numerous avenues, in building, in manufac-

WE CAN'T AFFORD TO WORK

TO say that the unemployed are without work because there is no work for them to do is not absolutely true. It is only true so far as the work necessary to produce consumable goods is concerned. Anybody who uses his eyes can see there is plenty of other work to do. For instance, there are slums to be pulled down, and decent homes to be erected in their place, and there are large areas of agricultural land badly in need of drainage. Both these works would be of enormous value—the one in improving the health and happiness (and efficiency) of millions of our hardest-worked people, the other in redeeming unprofitable land and preventing the costly damage done every winter by floods. Between them they constitute a task immense enough to please the most exacting of sisyphists, and to appal anyone who does not realize the vastness of the powers at the disposal of man. Why are they not carried out? Because, say the economists, we cannot afford them.

What does that mean? We have the men, the material, the machinery, all standing idle. We have "overproduced" the food and clothing which the men require. Why can they not start working at once?

Because, says the economist, we have not the money.

True. And that, so far as orthodox economics are concerned, is the end of the matter. So much the worse for orthodox economics. Not only does this alleged science compel us to starve in the midst of plenty; it compels us to stand idle when there is necessary work to be done.

If money is wealth the only way to obtain it is by working for it. We cannot expect it to spring into being spontaneously while our men and our machines stand idle.

But if, as I maintain, it is not wealth, but a means of exchange, a mere token, the position becomes more absurd still. We have the men, we have the machines, we have the material—but we cannot use them for lack of tokens! Suppose a party of men, equipped with axes and spades, were wrecked on a fertile island. Would they refuse to till the soil or build themselves a shelter because they had no money? Yet that is exactly what we are doing. Taught by the economists, we say: "We have millions of unemployed because we are poor," whereas, guided by our common sense, we should say: "We are poor because we have millions of unemployed," or (with better knowledge): "We are rich, but, if our millions of unemployed were working, we should be richer still."

In brief, what we have to do is to reverse our policy and put the horse in the proper position in front of the cart. Instead of waiting until we are rich enough to employ the unemployed we must employ the unemployed to make us richer.

EIMAR O'DUFFY, in LIFE AND MONEY.

turing raw materials and supplies, and in transport; this means a constantly circulating volume of purchasing power within the country.

It is estimated that an average wage for the worker in the industry is £3 per week, this worker being representative with a wife and one or two children. The restriction of building means that this representative worker is costing the State 20-27 shillings per week in unemployment benefit as a general charge upon British industries. Carrying the figures further we have the position as shown on page 45.

On a large scale these figures present a damaging criticism of building restriction, for every £1 million of legitimate constructional work stopped means that the State or local authorities must produce £320,000 in unemployment benefits and public assistance, while, in addition, £480,000 is withdrawn from the wage-earners' purchasing power in circulation. These are hard facts that need to be given the fullest publicity at this time.

The Building Industries National Council suggests that "there should be immediate and general reconsideration of the building and constructional programmes which have been cancelled or postponed since September, 1931, with the object of enabling local authorities to proceed with all projects considered by them remunerative or to minister to real needs."

This first step needs to be followed by a definite plan of reconstruction associated with the Town Planning movement. More building is needed but not more haphazard building, not more eyesores spread over the countryside. Building must be intelligently directed. Slum area reconstruction is needed, not as a sporadic outburst of activity, but as part of a definite plan. This plan has to be developed, its financing carefully studied, its profitability to the investor proved, its social and economic implications understood and made public, and its national value and urgency made known all over the country. There is not anything more chimerical in the idea of a National Construction Plan than there is in the idea of a National Power Plan. We have succeeded in making the Power Plan a reality; our next task is to make the Construction Plan equally tangible and to study how this shall be achieved.

THE SLUM PROBLEM

Housing conditions for large sections of working men in London, Glasgow, Birmingham, Leeds and similar big towns are acknowledged to be disgraceful. The death rates and especially

THAT MUNICIPAL DEBT

Ask any foreign visitor who remembers the appearance of this country in 1914 what impresses him most about Great Britain today, and he will unhesitatingly refer to the great new roads which stretch from end to end, the million-and-a-half municipal houses which have set a new standard in working-class accommodation, the fine new hospitals, schools, playgrounds, swimming baths, motor bus services, electric generating stations, waterworks and similar municipal institutions. These, he will tell you, are the clearest evidence that the material condition of England is actually improving rather than falling into decay, as so many people would have us believe.

"But," you will say, "this must be the municipal debt about which we have heard so much." That is not strictly true. What one can see with the eye is not the debt but the cause of it. If none of these fine civic undertakings or public amenities existed, there would be no municipal debt. And in that event, we are seriously told, the community would be far better off than it is at present ! For some reason which has never been satisfactorily explained, the thing which is wealth in the hands of private business becomes a burden in the case of a local authority. People talk of a company " with a capital of £x million," when they wish to emphasize the power and importance and strength of the undertaking. The capital of the company is its debt to the shareholders, yet no one mentions that aspect of the matter. Conversely, municipal debt is the capital of the local governing authorities. Yet no one mentions it. The absurdity and inconsistency of this comes out most strongly in the case of those services, such as electricity supply, which are partly in the hands of local authorities and partly in the hands of joint stock companies.

Capital development is essential to local government expansion ; and an increase in the municipal debt is a necessary and proper consequence of that development. Local government urgently needs expansion in almost every field of activity, from slaughter-houses to hospitals, from gasworks to markets. The local communities concerned are perfectly solvent and well able to bear the burden of the expansion. Industry is unable to make use of the money, with the result that the rate of interest is lower than it has been within memory. Yet we are told that the municipal expansion must not take place because it involves something called " debt," which has an ugly sound about it.

Thus do we deceive ourselves with words. Thus are the wheels of industry made to revolve ever slower and slower.

DR. WILLIAM A. ROBSON, PH.D., LL.M., B.SC.

infant mortality rates are horrifying in poor districts in contrast to the well-to-do areas. The congested conditions and lack of access to light and air are directly responsible for the short lives, the prevalence of phthisis in all its forms—the ghastly waste of life which is preventable through proper planning of towns and reconstruction of bad areas.

Idle capital is seeking investment in profitable enterprise. If we can show that slum reconstruction is profitable we are half-way to a solution of our problem. Large-scale operations are the cheapest, and under modern practices, using Time and Progress Schedules in building, substantial reductions in construction costs and in capital charges are achieved. With costs on today's low levels it should be a practical undertaking to rehouse the workers in overcrowded and dilapidated areas of our chief industrial towns by profitable rebuilding. The costs on large-scale operations, dealing with from 1,000 to 25,000 families at a time, would be at a minimum, and low rental figures would result below those at present being paid for unhealthy and decrepit accommodation. It is for builders and architects to prove the profitability of large-scale rehousing plans to the private investor ; he is seeking an outlet for his money.

The problem arises whether modern flats shall replace dilapidated cottages or whether the ground shall be cleared for other types of building, and the workers rehoused on the borders of the town or in a satellite town to be constructed. The choice of action must depend upon particular conditions in local areas, but it is evident that a greater measure of consultation will be needed between the various local authorities involved and with the manufacturing interests and transport companies affected.

It will be useful hereto to call in mind in our analogy with the electrical industry, that the Electricity (Supply) Act of 1926 gave powers to the Electricity Commissioners to set up areas and prepare schemes for supply in these areas. The areas were determined after careful study of geographical and industrial sources of energy, with a view to effective linking up of different parts of the area, and with regard to future interconnection between areas. Local representatives have been given a full hearing concerning the schemes and a satisfactory working system has been evolved.

Plans for slum clearance are of urgent national importance, and the Building Industry is now in a position, possessing a Permanent Council, to lay down a policy and prepare a plan which will include slum clearance and rehousing as an important factor.

PLANNING A PROGRAMME

The plan will need to emphasize the long-sighted nature of wise expenditure by Government and Local Authority and the profitable character of expenditure by the private investor in construction and reconstruction undertakings. This is needed to combat the unwise economy proposals of various bodies, including such economic experts as the House of Commons Economy Committee. One proposal put forward by this body is that Local Government expenditure should be reduced by 15 per cent., spread over three years in equal amounts of 5 per cent. This foolish suggestion would simply lead to curtailing public works on top of the many schemes which have been held up by the Economy Act of 1931, and would add to the already excessive unemployment totals of the constructional industries.

It is for the National Council to prepare its plans and initiate a programme for the country. The propaganda campaign must be planned throughout; it must aim at the achievement of definite objectives laid down by the Council.

These will presumably include release of the development work which was held up last year, including roads, docks, promenades, schools, drainage, river defences, etc.

School building operations estimated to cost about £10 million were stopped last year, but there are no less than 1,200 schools on the Government's list of schools unfit for children! This hold-up is one of the numerous social offences committed in the sacred name of economy.

In any reconstruction scheme it is obvious that London needs replanning; its railway system, bridges and Southern termini, the Thames southbank and its overcrowded areas, are blots on the national capital.

If the Building Council sets out to plan its objectives on behalf of the construction industries and plans its entire propaganda to attain these objectives there is a reasonable hope that public opinion will be stirred and public men influenced. So far the Building Industry has not received the recognition due to its magnitude and importance; it has not had sufficient limelight as a major factor in the British industrial configuration; the Building Industry needs publicity.

Concerning the development work of Local Authorities, while the Town and Country Planning Act (1932) has been mutilated in its passage through Parliament, it does increase planning powers, and the opportunity is ready for Local Authorities to prepare their schemes for the redevelopment of town centres and the development of rural areas.

BUILDING HELD UP

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SCHOOLS

The building of new schools and extensions to old ones has been held up by the Ministry of Health and Board of Education in Aldershot, £58,438; Blyth, Northumberland, £25,000; Burnley, £111,500 (approximately); Carlisle, £65,000; Exeter, £44,000; Glossop, £8,800; Ilford, £43,000 (approximately); Morecambe and Heysham, £30,000; Neath, £42,250; South Shields, £65,519; Twickenham, £43,000 (approximately)—a total sum of approximately *£717,000.*

BATHS

Schemes for public baths have been held up in many places; among them is Chesterfield, £15,000; Hackney, £90,000; Marylebone, £163,000; Stockton-on-Tees, £47,000; Thornaby-on-Tees, £24,000; Sunderland, £30,000—a total of approximately *£386,000.*

HOSPITALS

Many proposed new hospitals, as well as extensions and improvements, are also being held up. Ilford (hospital, £50,000 and maternity home, £21,000); Tynemouth (£12,000); Tadcaster (£13,500).

TOWN HALLS AND MUNICIPAL OFFICES

Among these are Norwich (new Town Hall), £222,000; Southampton (new Town Hall, Assembly and Concert Hall for new Civic Centre), £158,606 [lowest tender]; Stafford (reconstruction of Guildhall), £16,000; Stockton-on-Tees (municipal offices), £48,000; Tynemouth (Town Hall), £120,000; Coalville (municipal offices), £18,000; Epsom (municipal buildings), £37,449; Tottenham (Town Hall extension), £23,000.

HOUSING SCHEMES AND ROADS

The curtailment in housing schemes all over the country is estimated at the value of more than £1,000,000, and roads at £1,268,132. Parlour houses in particular have come under the ban of the Ministry of Health.

Working on the returns up to date, the average curtailment is £15,600 per local authority. No County Council returns are yet to hand and many of the big towns have still to reply, but one-sixth of the returns are now in and these show a curtailment of £5,000,000. The *minimum* curtailment for the whole country is thus *£30,000,000.*

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To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—*May I suggest that the matter of cheap cottages is one which you might take up. Financially, we are very near to cottage building in rural districts being a better investment than Government securities: indeed, if cottages can be built for as little as £300 each (the figure of £250 has been stated), they are better.*

NATHANIEL LLOYD

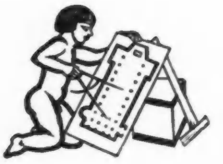
All prices, irrespective of the type of building required and ranging from hospital blocks to houses, showed a considerable drop on previous costs. For houses the all-in price was £271, as compared with £300 for recent months, both figures including an allowance of £25 for roads, drains, etc., Edinburgh Corporation's house-building costs have thus shown a remarkable variation from just after the War, when the price per house ranged as high as £1,100.—From "The Edinburgh Evening Dispatch."

Much depends upon the initiative and vision of Local Authorities in the formation of Joint Committees for regional plans.

For the National Building Council to achieve its objectives successfully, so that Town Planning and slum clearance activities may be initiated on an adequate scale, it is evident that a central body such as a National Planning Board is needed. Politicians are struggling with industrial economic questions for which they have no training and these questions need solving by experienced minds. We look forward to the evolution of a national group in which the Building function can play its important part.

The basic facts of the industry are such that common sense is on the side of planned construction. *The interests of the Building Industry are those of the nation.*

ARGUMENT



¶ *National policies have been made to aim at a balanced budget. Rigorous deflation has been practised; national security is preached through reducing wages and construction. Strong counter-measures are necessary to reverse these negative policies. True economy is wise spending at the right time.* Now *is the time to build.*

Building is a good investment: credit and materials are plentiful and cheap; building costs are lower than they have been at any time since the war or are likely to be in the future.

Building relieves taxation: over two million workers are directly affected by the Industry and a further two million indirectly. Eighty per cent. of the total cost of its products is disbursed in weekly wages, causing a constant circulation of purchasing power. The Industry obtains practically all its raw materials in the country.

Building is a necessity of progressive manufacture: England has acres of obsolete factories, streets of out-of-date offices, miles of slums, and at least 1,200 schools unfit for children. All these must be reconstructed.

Cheap money, labour and materials are available; yet investors hesitate.

The Public Relations Committee of the Building Industries National Council have made clear the position of the Industry in relation to National prosperity, its power to render efficient service in national industrial rehabilitation.

Architects must play their part by rationalizing their own activities.

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PUBLIC WORKS UNDERTAKINGS

Public works undertakings, it is held, during periods of business activity should be limited to the irreducible minimum of immediately essential improvements, and during depression periods should be expanded to include all socially desirable projects which may be postponed or advanced from relatively prosperous times. This goal is so generally agreed upon that supporting arguments need not be presented in this discussion.

DR. WILLIAM N. LOUCKS,
[ASSISTANT PROFESSOR OF ECONOMICS IN THE WHARTON SCHOOL OF FINANCE AND COMMERCE IN THE UNIVERSITY OF PENNSYLVANIA]

THE CITIES CAN CO-OPERATE

The cities can co-operate very greatly in that matter and they ought to be given some compulsion to do so. I believe it would be advisable in every one of our States to adopt legislation which would require every municipality in the state to appoint a city-planning commission if it does not already have one; which would require that commission to arrange a budgeted method of planning for five or six years ahead for public improvements in the approximate order of their urgency; and which would provide for carrying out those improvements. The municipalities would be expected to carry out those improvements from year to year, though of course they could not be compelled to do so.

My belief is that if we would use these methods, we probably should never have another depression such as we are experiencing. But if the statistics, which ought to be kept much more carefully by the Federal Government, were to show an abnormal increase in unemployment at any time, then let the Federal Government come to the aid of the situation not only by speeding up its own public works activities but also by making large sums of money available to the States and the municipalities at a very low rate of interest, say 2 per cent., as an inducement to them to carry out in a period of one year the plans, say, for the next two years, as far as that would be feasible.

HAROLD S. BUTTENHEIM,
[EDITOR OF *The American City*]

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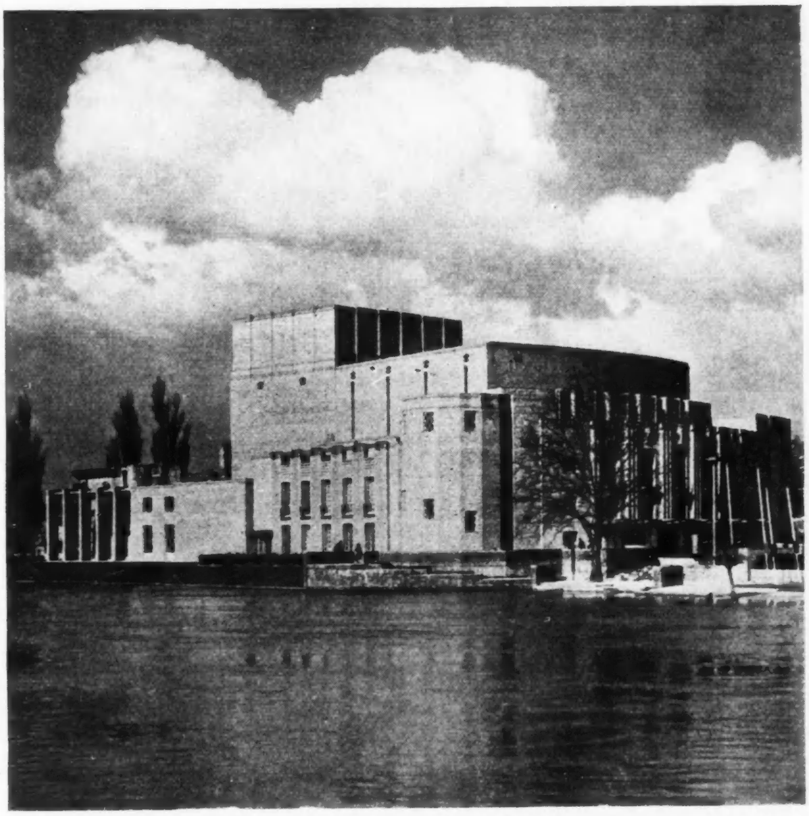

Shakespeare Memorial Theatre, Stratford-upon-Avon. By Scott, Chesterton and Shepherd.

BUILT NOW

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THE YEAR'S BUILDINGS

[*By PROFESSOR C. H. REILLY*]

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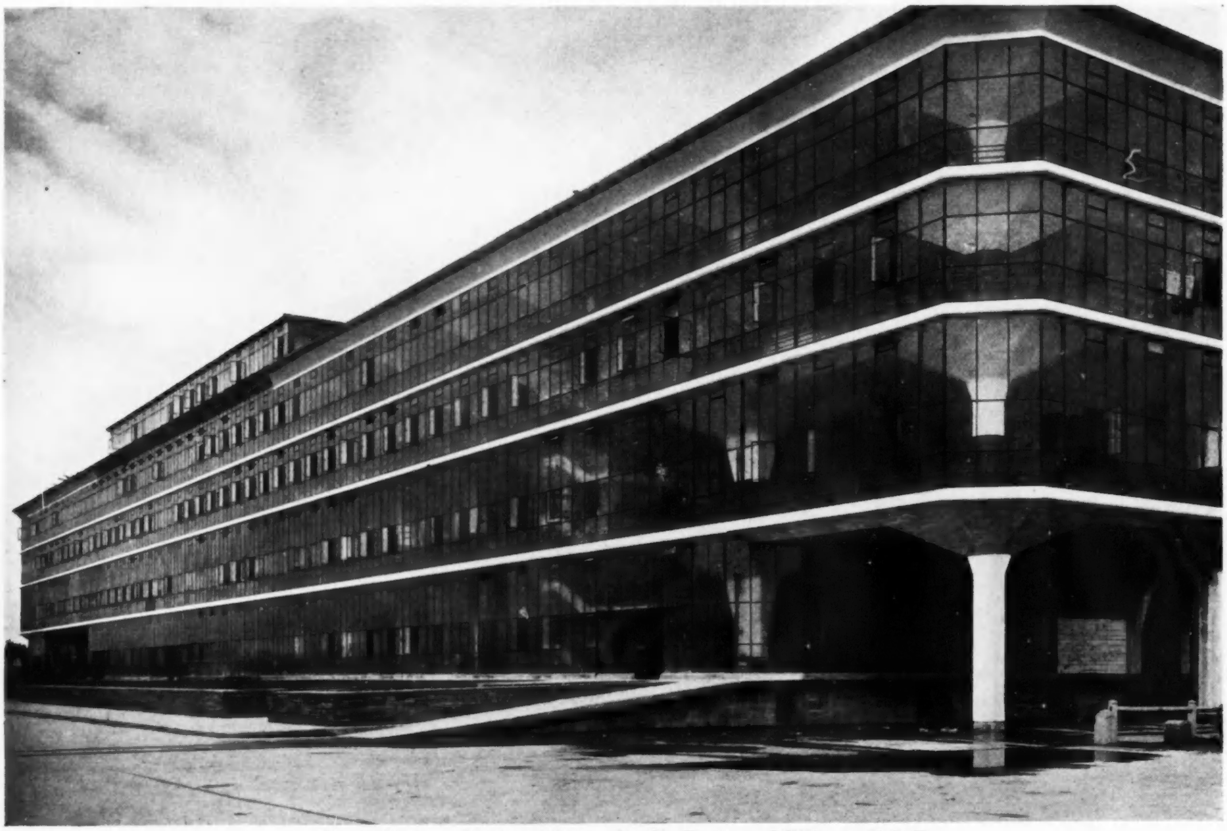
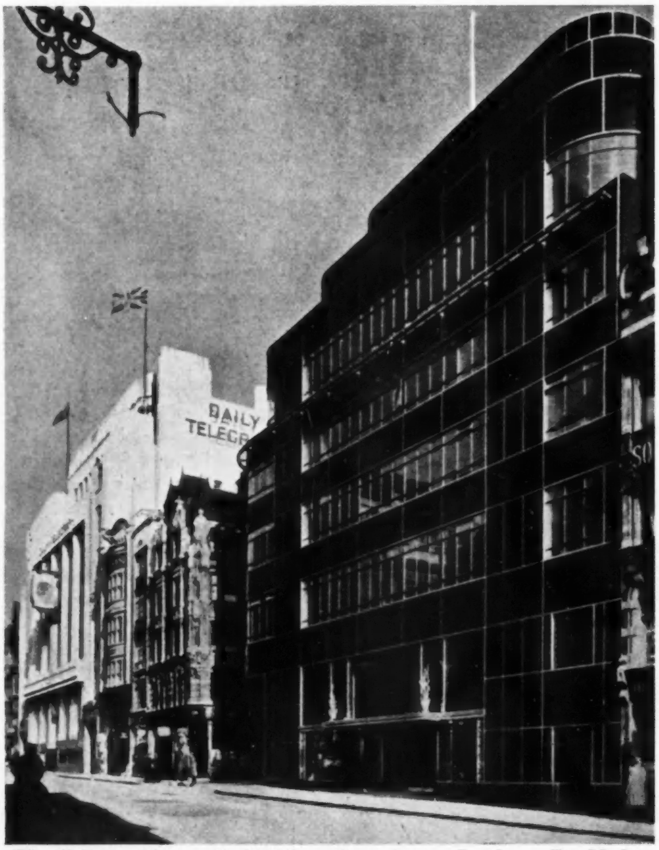
THANK goodness, in spite of the outcries of the Jeremiahs and the public retrenchments of every kind, there has been *some* work executed in 1932 after all; and a very fair amount of it. The wise have obviously seized the opportunity of low prices, and will go on doing so. Whatever happens to sterling, bricks and mortar remain. Those who, not reckoning with the characteristics of its inhabitants, believe the country is down and out for ever, may be content to cut down policemen's salaries, and to do noble deeds of that kind, sitting the while on their little hills of interest and imagining the flood will reach them last. The world may perish as long as they have a year or two more in comfort. May a tidal wave sweep such folk away, leaving the land clear for the positive people who still have some faith! Here's, then, to the builders of 1932, whatever kind of architecture they put up—or almost so—provided of course they did not, like those wonderful people, the Crown Commissioners, pull down something far better first.

The Three Schools Again

Looking over the illustrations the Editor has sent me, the year's work once more divides itself naturally into that of the Revolutionaries, that of the Evolutionists, and that of the As-You-Were folk, or, if it is liked better, the Left Wing architects, the Centre architects and the Right Wing ones. Let us begin with the Left Wing people; they, at any rate, are the more entertaining. " New Worlds for Old " is their motto, whatever breakages may take place in the transformation. One welcomes their bravery, their fine spirit of adventure. A fresh and exhilarating wind has swept through the studios of the Schools of Architecture since modernism first appeared. Youth has felt that it has at last something of its own to contribute, instead of being endlessly engaged in polishing up the columns of its great-grandfathers. The results to date are, no doubt, a little crude, just as they still are in the streets outside. One could sometimes wish that their brave new world had been forcibly kept to its own new streets and towns, leaving the old world to die in peace. That is why one welcomes the placing of the new Shakespeare Theatre at Stratford-on-Avon, with which I propose to begin. It is outside the old town, facing it squarely and bravely across a wide stretch of grass. It is, too, by a woman, without whom no



Boots' Factory, Beeston, Notts. By Sir E. Owen Williams, K.B.E.



The "Daily Express" Building, Fleet Street, London. By Herbert O. Ellis and Clarke.

popular revolution was ever carried through. I hope to find myself next to one when the time comes to man the barricades—it would at any rate ensure in me an appearance of courage.

Shakespeare Memorial Theatre

No revolutionary building with us has caused so much strife as this one. I remember that when the result was announced by the wireless, I was on my way to India with our wittiest and most distinguished architect. He said it was the end of competitions—just that. Later, when he saw a photograph of the building finished and floodlit on my mantelpiece at home, he expressed his disapproval in a thoroughly Shakespearean manner. Yet for the majority of architects today, it is externally a fine composition of masses, very expressive of its purpose. I like its aloof attitude to the old town and the buildings of Shakespeare's time. It is the attitude of the Parthenon on its Acropolis to the hovels of the ancient Greeks or today to the discordances of modern Athens. After all, it was built as the tribute of our own generation and of no other, and certainly none but ours could have conceived it.

To my thinking it is a noble and stirring tribute, inside and out, though I find the main auditorium the least satisfactory part of the interior. The scale has not there been so well maintained. The exterior, with its inclusion of the shell of the old theatre and its strong yet suave shapes, makes a fine monument from every point of view. On coming close to it, however, one cannot help being a little disappointed with the brickwork. It might be that of a Surrey villa, neat and nice, of good texture and colour, but with none of the monumental character such great masses of building call for.

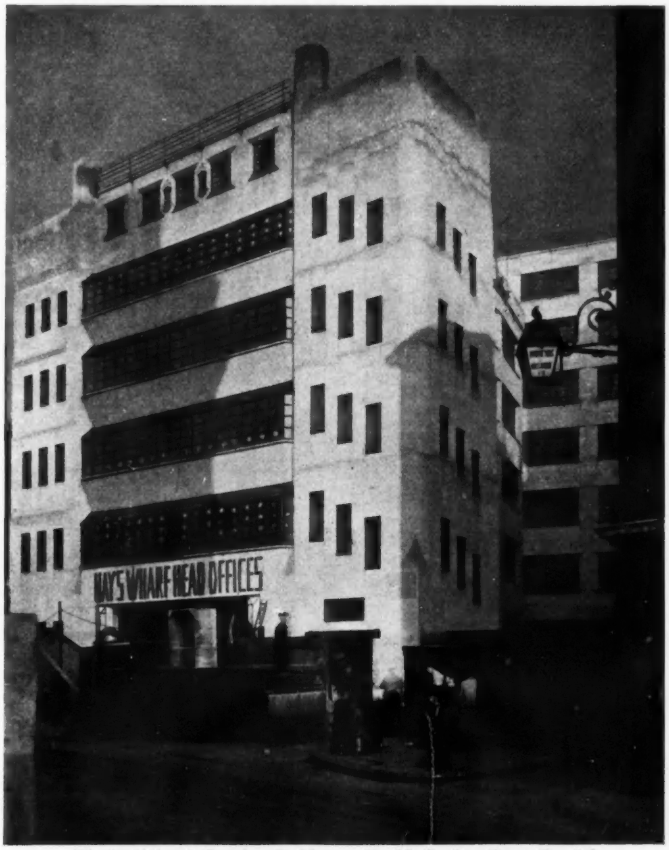
One feels our brave young St. Joan should have visited Sweden or Holland before the first brick was laid, and, returning, given lessons to her bricklayers, telling them there are other things to be done with bricks nowadays besides keeping the perpends vertical and the joints neat. May other great opportunities none the less fall to her lot until the fight she has led for a living architecture is finally won! How far away from that the mass of the people still are is only too clear from the square miles of so-called Tudor villas still being erected by the speculative builders round our towns and bought by the uneducated, by the great Tudor Exhibition Halls, the so-called educated erected for us recently in the Argentine, and would have done again at Chicago next year if we had not been too bankrupt to erect anything at all.

Boots' Factory, Beeston, Notts.

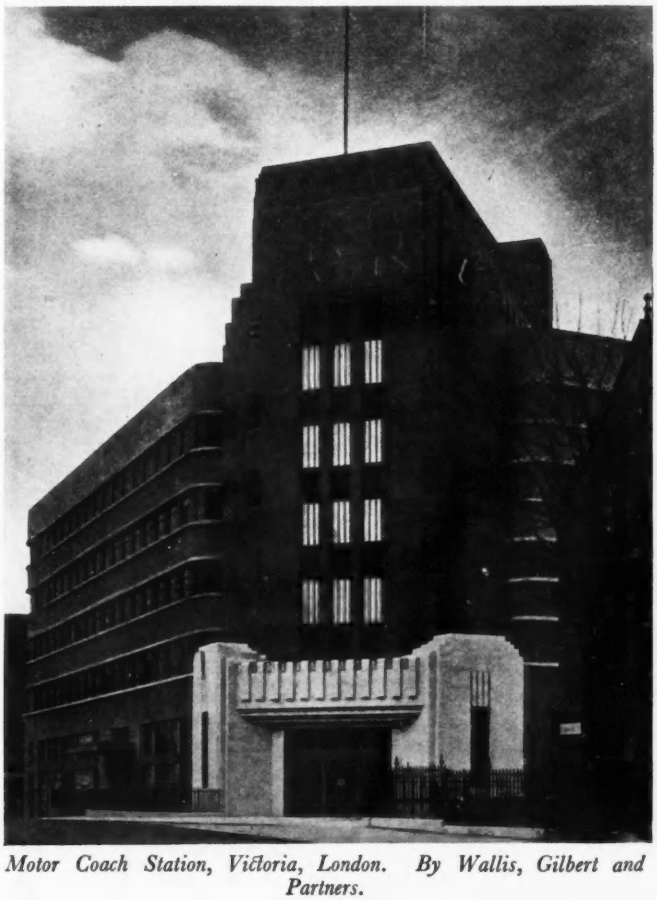
The other main modern achievements of the year lie at the two extremes, in factories and warehouses on the one hand, and in decoration on the other. In either of these extremes, one can the more easily, one supposes, find freedom. The factory for Messrs. Boots in glass and concrete at Beeston by Sir Owen Williams is, of course, not so thrilling as the Van Nelle tobacco factory at Rotterdam by Brinkman and Van der Vlugt, in the same materials, but one can hardly expect an English engineer in his first experiment to equal two of Holland's best architects. Still, it is a great step forward in this land of muddled illogical factories, often, up here in Lancashire, where I write, aping the worst late Victorian town halls and Edwardian cinemas with their pressed bricks and terra-cotta decorations. The vast nave of the Boots building, to judge from the photographs, is a very impressive affair, while the cliff of glass on the outside, or better still, the long glass screen hanging in mid-air over the railway siding, are from their very unexpectedness not without drama.

The "Daily Express" Building

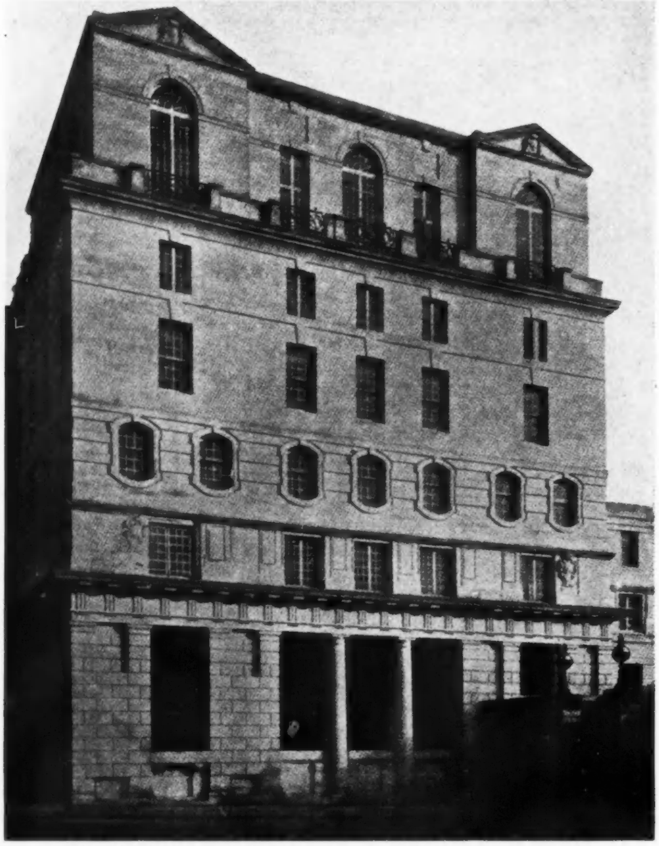
Though it is not quite a factory, even of news, the *Daily Express* building in Fleet Street, by the same engineer, but



Hay's Wharf, London Bridge. By H. S. Goodhart-Rendel.



Motor Coach Station, Victoria, London. By Wallis, Gilbert and Partners.



No. 68 Pall Mall, London. By Sir Edwin Lutyens, R.A.

with architects to help him this time (Herbert Ellis and Clarke for the general structure and Robert Atkinson for the highly-decorated entrance hall) is a very similar structure, and, being placed where it is, has brought the new architecture and the new materials home to everyone. Its sleek, black, polished surface, with its silver lines, its simple symmetrical shape with curved corners, which prevent any harshness or greenhouse effect, the easy way the building is cantilevered out or set back, and, most of all, its contrast with its overdressed neighbours, makes it, everything considered, the most arresting building of the year.

Is this what we are coming to in our business streets? Shall we work in future in gay cardboard structures of this kind, readily washed down, instead of in heavy Portland stone palaces, richly encrusted with soot, except where the rain has bleached them? When the authorities allow the concrete walls behind the glass to be dispensed with we shall be back to a modern version of the half-timbered overhanging mediæval street, but bright and clean and workmanlike, and not at all unpleasant, I fancy, for narrow thoroughfares.

It will be difficult, as Mr. Atkinson has found in this instance, to add decorations, even to the doorways of such exteriors. One might as well try to decorate the hull of a modern liner.

Hay's Wharf

The warehouse, near London Bridge, called Hay's Wharf, rebuilt by H. S. Goodhart-Rendel, is a very notable effort in direct functional building which, by its proportions, the pattern of its parts, and the compositions of its masses, becomes architecture. This particularly applies, I think, to the elevation to Tooley Street, to the escape staircase, to the lift wells and the entrance to the car park. There is very little decoration to any of these except to the latter doorway, yet the forms used give a strong sense not only of ordered but of decorative building. In this regard I feel these portions of this building, without any return to traditional forms, show an advance on pure functionalism. The machine here has taken on some colour and shape, like the modern motor car. The elevation to the river, however, where the decoration is more forced, does not seem to me so satisfactory. The masses of the structure are not simple enough to carry across the broad surface of the Thames, and the great central decorative panel, interesting as it is close at hand, seems largely wasted.

Victoria Coach Station

A building of the same class, but relying like so many of these modern structures on the sudden contrast of vertical lines to represent a stair or a lift with long horizontal lines to represent the various floors, is the new omnibus station at the corner of Buckingham Palace Road and Elizabeth Street, for the London Coastal Services, by Wallis, Gilbert and Partners, the architects of so many of our best factories. It is an imposing affair, making everything near it seem small, out of date and insignificant. It is for this reason one would wish these Gargantuan things, with their sudden contrasts, to have streets or even districts to themselves. A zoological garden for the wilder of the new species, until they become acclimatized, has a good deal to be said for it.

So much for the extreme left wing, though there are a number of small domestic buildings, such as the house at Rye, by Frank Scarlett, and that at Cambridge by Marshall Sisson, which depart quite as far from tradition, and yet suggest to me a very happy life for young people cursed with no old furniture and family belongings. Space does not allow of a discussion of these and other interesting smaller buildings in the new manner which have cropped up during the year, nor of the new decorative interiors such as the B.B.C. studios and the Embassy Ball Room, clean and bright and gay, yet very positive and sure, which are as significant of the new attitude to life as any of the new buildings.

The Centre Party

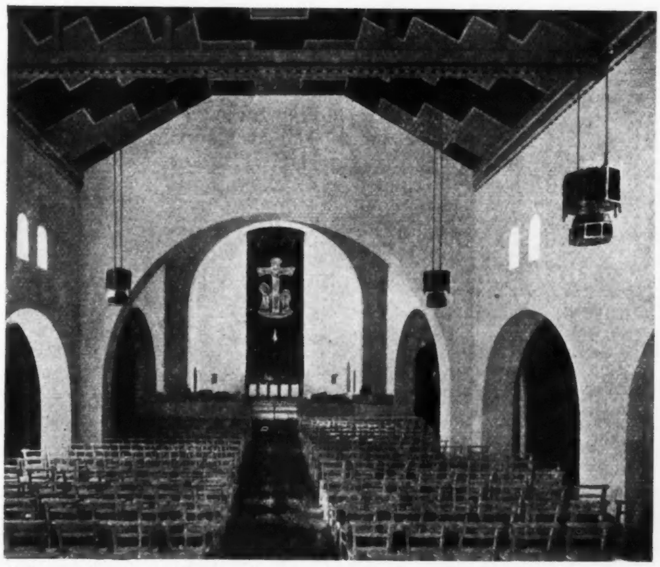
The Evolutionists or the Centre Party, whose methods are, perhaps, more suited to our English temperament than those of the Revolutionaries, are well represented this year. There is some work at Richmond in a library by Edward Maufe, who may be looked upon as a leader of the left wing of this party (when he is not designing cathedrals) and other work by that valiant old warhorse, ever young and nearly always inspired, Sir Edwin Lutyens. If, in his general attitude, the latter is nearer the traditionalists, he never stands still. In his great palace at Delhi, in his big city buildings, in his workmen's flats at Westminster, he has given new life to traditional forms by boldly accepting the new requirements. This year his fine block of flats and offices, No. 68 Pall Mall, was finished. This is no "As-you-were" architecture. It would be difficult to find, except in his own work, precedents for its composition, or for some of its detail, yet how exactly right are its general shape and its two pedimented roof features as a stop to the run of buildings on the south side of Pall Mall, holding them back as if to provide a clear entrance for the Prince to Marlborough House !

In the library at Richmond, for a theological college, Maufe has produced some delightfully elegant forms, both externally in his long first floor windows and balconies, and internally with the domical vaulting of the bays of his library. He seems in domestic work able to give us the elegance of the eighteenth century without its formalism and pedantry. There are hardly any mouldings and neither a pilaster nor cornice on the building, inside or out, yet one receives the effect of the ordered refinement and dignity these things, when properly managed, can give. One receives indeed the essence of them, but with a mind still free to weave its own dreams.

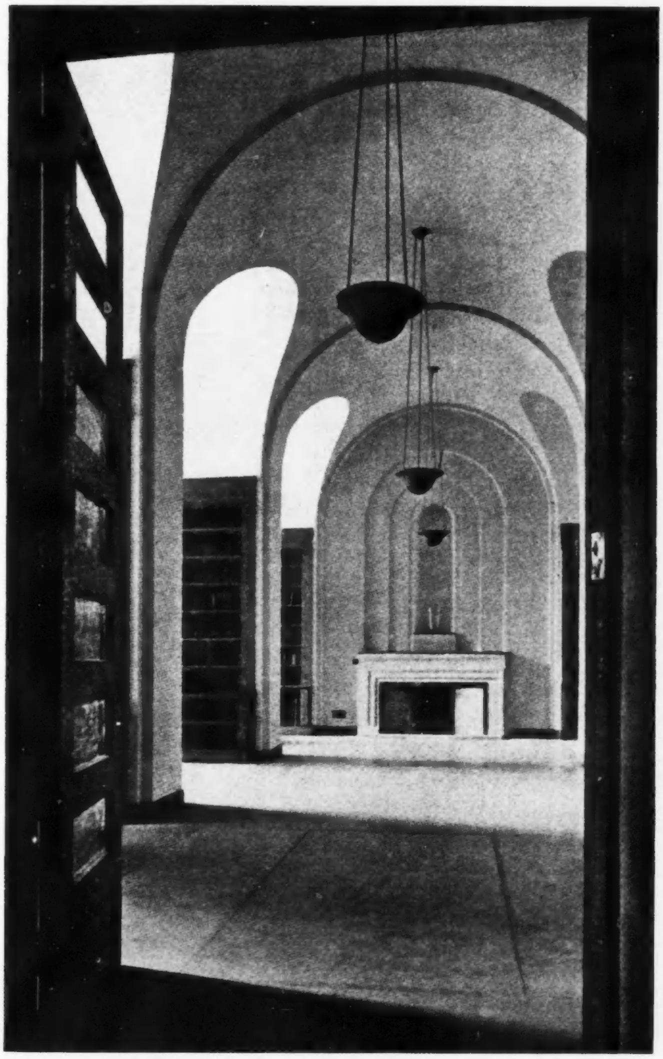
I think that may be the secret of the charm of Maufe's architecture, whether based on eighteenth-century classic or thirteenth-century Gothic—that he produces an atmosphere in which the mind can expand. He does not hammer us with urns and swags and triglyphs, like the ordinary bank architect, nor with complicated tracery and vaulting, like the ordinary church one. Instead, he gently makes suggestions, and it would take a very hard-hearted person not to fall in with his mood.

St. Columba's Church, Anfield

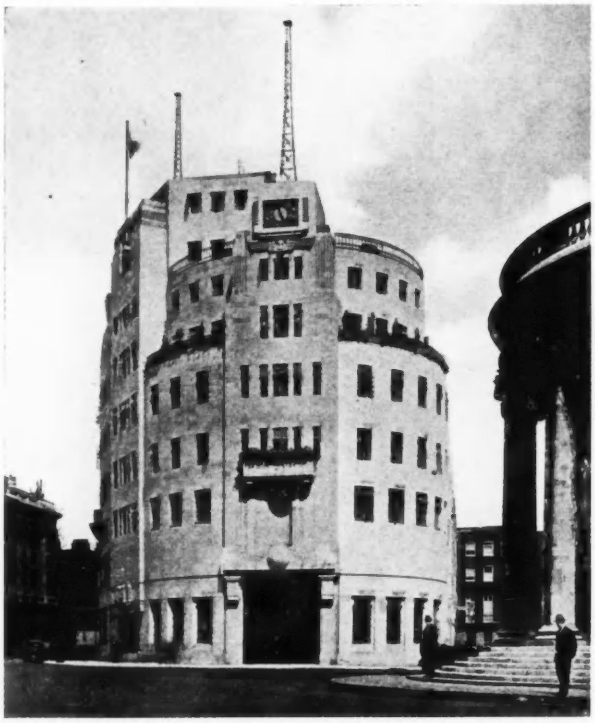
A follower of his in spirit, who has built two lovely modern churches this year in Liverpool, is Bernard A. Miller. St. Columba's, Anfield, is so far the only one of which views have been published. It is a church on a narrow triangular site, in silver grey bricks, with a bright glazed green tile roof. At the apex of the site Miller has placed the chancel and has made that the loftiest section of the church, which then steps down in two sections so that when one enters at the west end of the nave, one has before one a continually rising church, each compartment more strongly lit than the last. The result is dramatic and solemn at the same time, and it is enhanced by the brilliant colours, edged with chromium-plating, Miller has used everywhere but on the walls. The Sabbath gloom of one's youth cannot exist in such an atmosphere, yet there is no denying the feeling that the place is a house of prayer. Here, then, is a distinct advance, a building with a certain traditional basis to it, as is almost necessary with such a programme, but achieving effects in a new way and using the new materials. St. Columba's must surely be the first church with choir stalls built up in plywood, painted in panels of dark and light blue, separated by strips of stainless steel.



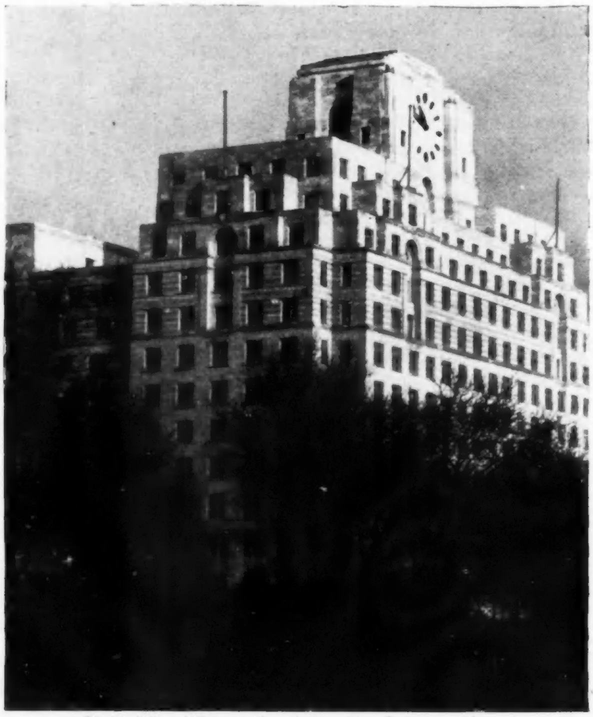
Saint Columba's Church, Anfield, Liverpool. By Bernard A. Miller.



Library at Richmond, Surrey, for Wesleyan Theological College. By Edward Maufe.



Broadcasting House, London. By Lt.-Col. G. Val Myer.



Shell-Mex House, London. By Messrs. Joseph.

Shell-Mex

There are two big buildings which belong to this evolutionary category, though it is difficult to see in what direction their compromises lead. They are Shell-Mex House on the Embankment and the B.B.C. building in Portland Place. I have not seen the former close at hand nor photographs of much of its detail. What I have suggests the influence of Sir Edwin Lutyens in the setting back of the walls in a series of steps and blocks. The result is a strong, powerful-looking mass to the main body of the building, suited to the great spaces in front of it. There is no suggestion, however, of the steel frame within, which one knows to be there. The upper part of the building, where the main rectangular mass breaks into a number of smaller but similarly-shaped masses, though effective from a distance, is clearly a little crude, and the central clock-tower more so.

Broadcasting House

The B.B.C. building makes the same compromise both with tradition and its surroundings by using the ordinary vertical type of window, but is more successful, with its large vertical flat planes and the shallow offsets from them, in suggesting the steel frame within. This building is much hampered by its potato-shaped site and by the ancient lights which have made the end-on view of it, as one approaches from Regent Street, so lop-sided. It seems a great pity that the architect was not allowed more opportunity to express on the exterior his mysterious studios but had to hide them everywhere behind a film of ordinary offices. The small suggestion of them in the blank wall at the top of the façade, with its port-holes, and the steel masts on the roof are the things which chiefly give the building its distinction and suggest its purpose. As with the Underground building last year, the B.B.C. this year is the building that has the best modern sculpture. In its studios and concert halls too are the year's best decorations.

Thames House

Thames House is another big building which would fall within this centre group if by that we meant buildings for which no exact precedent could be found, but we really mean more than that. We mean buildings which, while departing from precedent, seem to be leading somewhere. Thames House, though big and ornate, like its immediate predecessors by the same hand, seems to be leading nowhere. Architecturally it solves no problems.

Manchester Grammar School

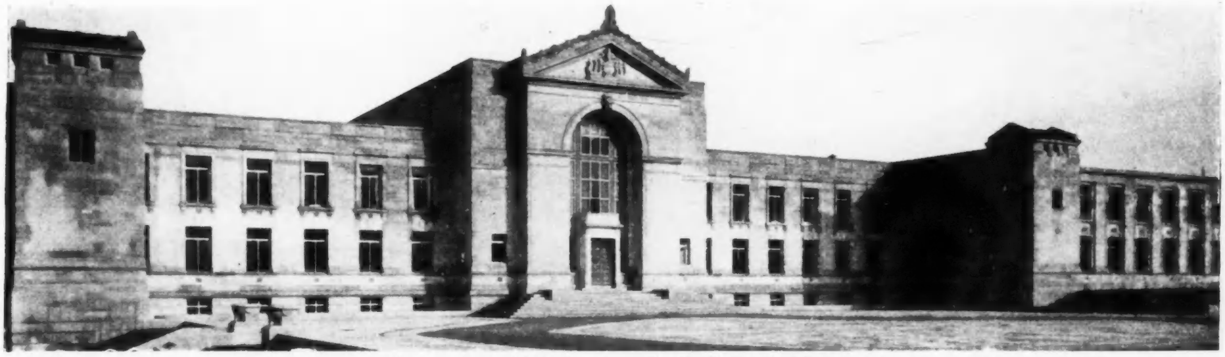
Lastly in this group we have two fine schools, the new Manchester Grammar School by Percy Worthington and Francis Jones, and the St. Swithun's girls' school outside Winchester, by Mitchell and Bridgwater. Both these buildings use the late classical precedents, but give them new life and energy by simplification. Neither set of architects, however, carry their simplification as far as Edward Maufe does. The former have planned their school round several great courts, with blocks of high buildings in simple shapes standing up and showing plain, strong flanks above the lower ones. Cloisters of semicircular arches and vaults link up the buildings and the whole makes a group undoubtedly of our time yet distant cousin to the larger and later Oxford and Cambridge Colleges. The interiors of the main apartments are more strictly traditional than the exteriors.

St. Swithun's School, Winchester

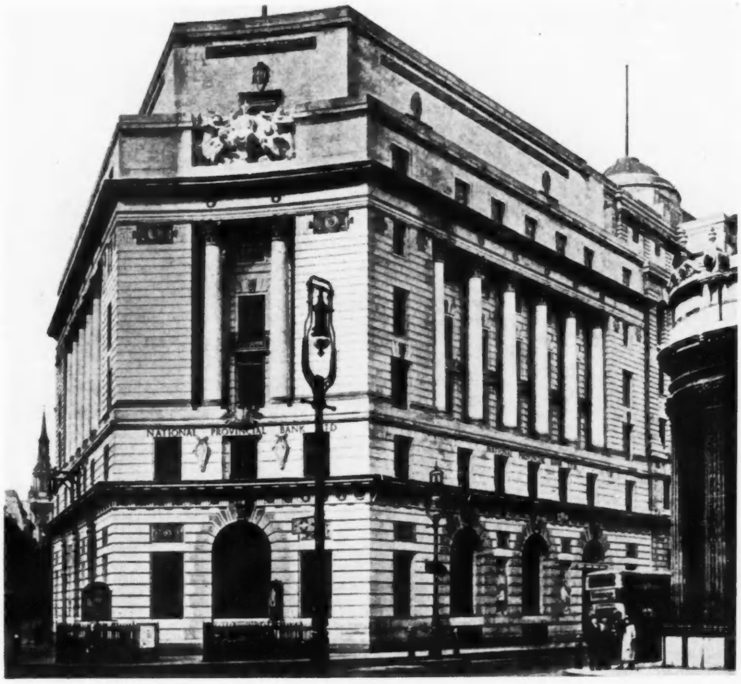
The Winchester School, in a charming orange brick, is a more delicate affair but achieves considerable dignity. On the exterior, cornices have been reduced to bands and the masses left to tell their own tale, though some of the façades are perhaps a little over-windowed. Curiously enough, this school is the reverse of the Manchester one, being more modern in its interior.

The Right Wing

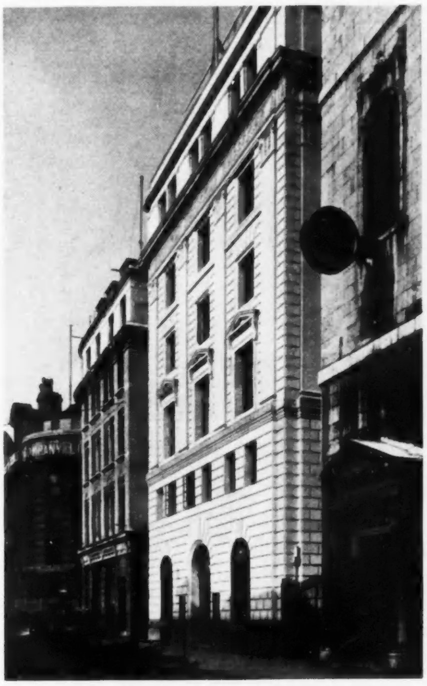
We now come to the buildings of the Conservative or the Right Wing architects, for whose work these days, perhaps



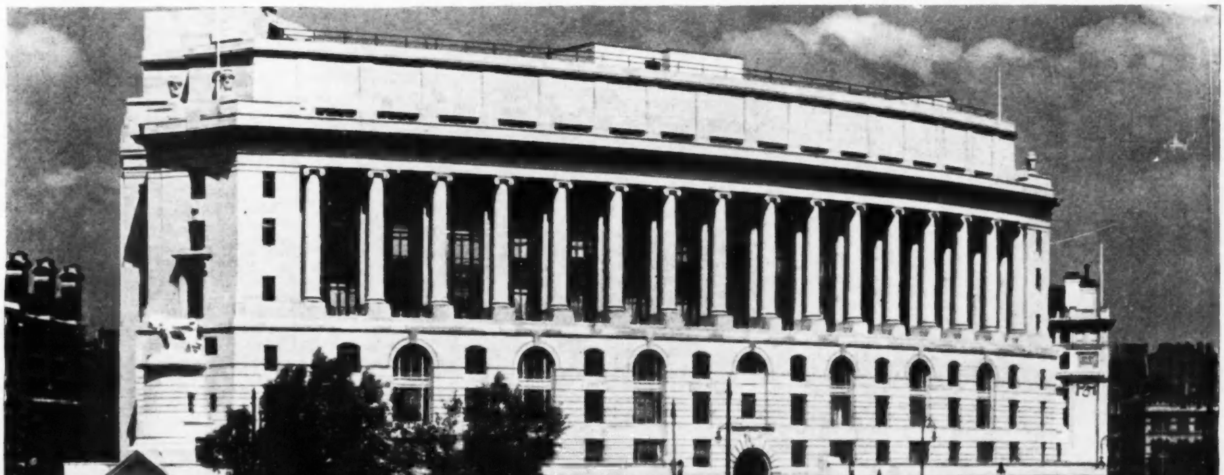
Southampton Civic Centre. By E. Berry Webber.



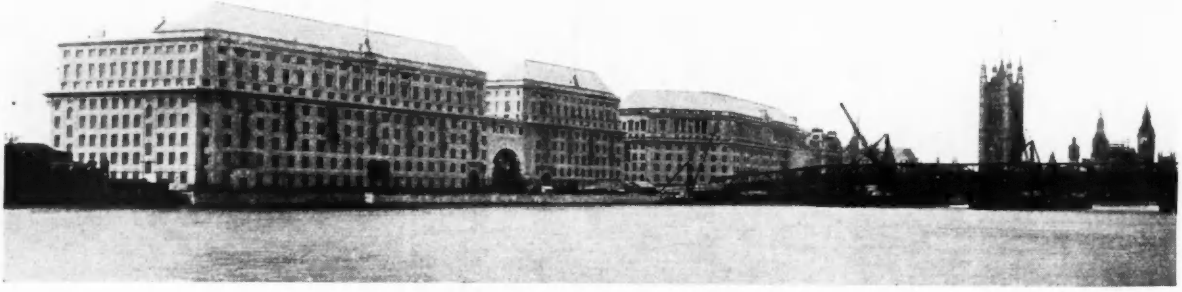
National Provincial Bank, Princes Street, London.
By Sir Edwin Cooper, A.R.A.



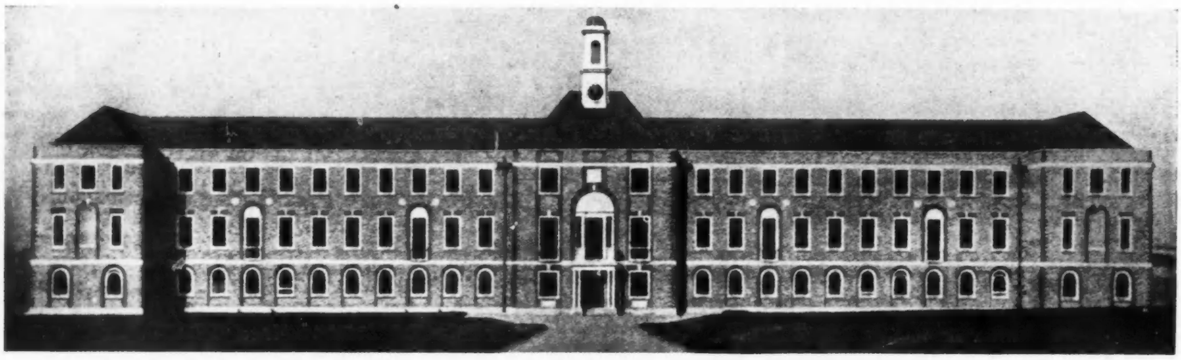
Royal Bank of Canada, London.
By S. G. Davenport.



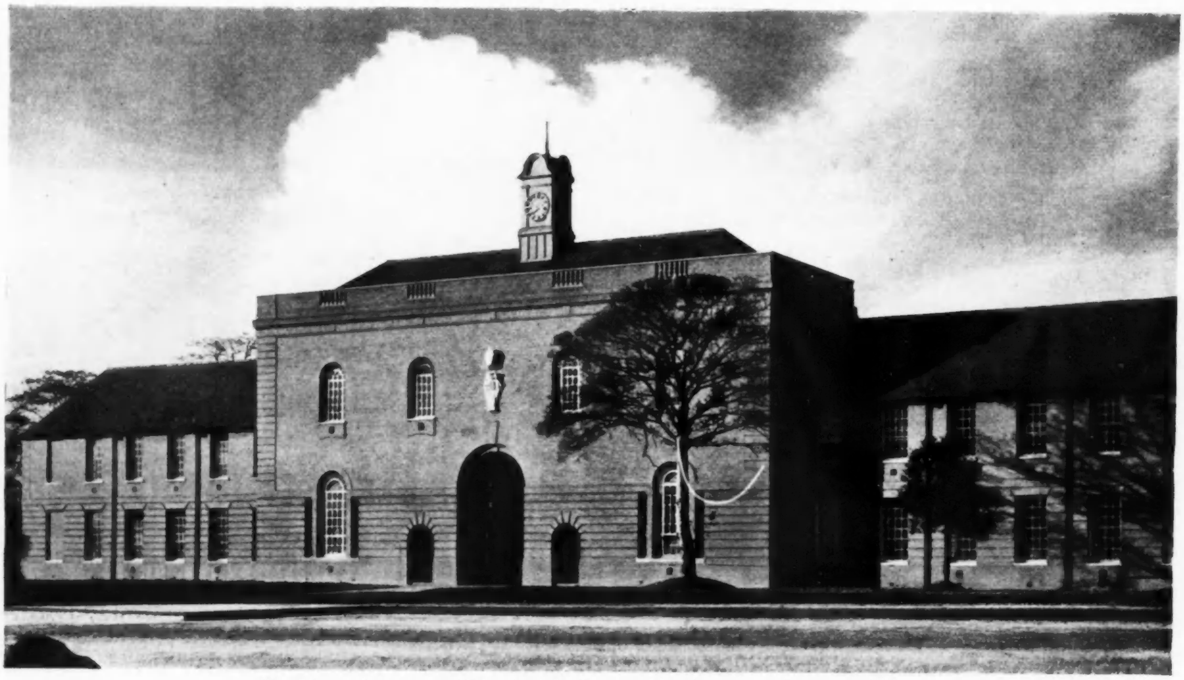
Unilever House, London. By Sir John Burnet, Tait and Lorne (J. Lomax Simpson, consulting).



Thames House, London. By Sir Frank Baines.

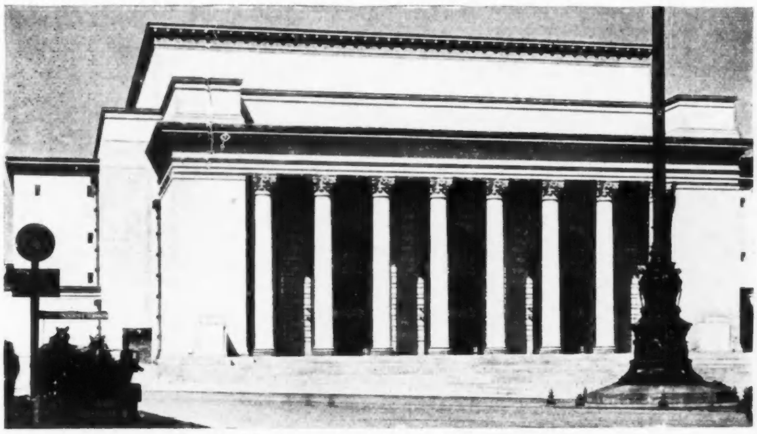


Saint Swithun's School, Winchester. By Mitchell and Bridgwater.



Manchester Grammar School. By Percy Worthington and Francis Jones.

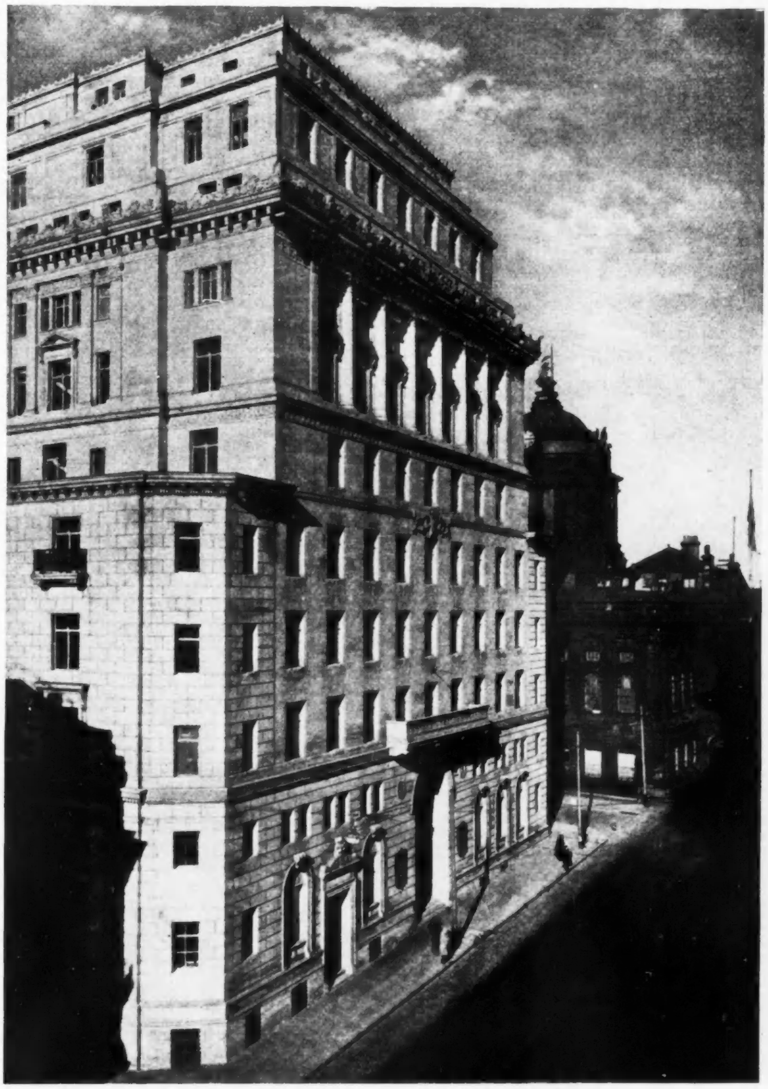
because I was brought up among them, there is, I feel, a tendency unduly to decry. When the din of the new battle of the styles has died down it will be seen, I am sure, that the work of men like Vincent Harris, Herbert Rowse and Berry Webber has what Wren, I think, called the elements of the eternal in it, in that its mass compositions, apart altogether from the stylistic signification of the detail, very generally hold the imagination.



Sheffield City Hall. By E. Vincent Harris.

Sheffield City Hall

Vincent Harris's City Hall, Sheffield, finished this year, is a good case in point. See, from the illustration of its main front, how well its planes recede and how expressive are the alternate vertical strips of light and shade of the long portico in contrast to the main horizontal masses. The strength and simplicity of this front will hold its own, I fancy, however boldly and in the bravest modern manner its surroundings are rebuilt. The detail does not seem to me so satisfactory when one gets close to it, nor is it wholly happy to find that this very rectangular exterior clothes a simple, great elliptical hall.



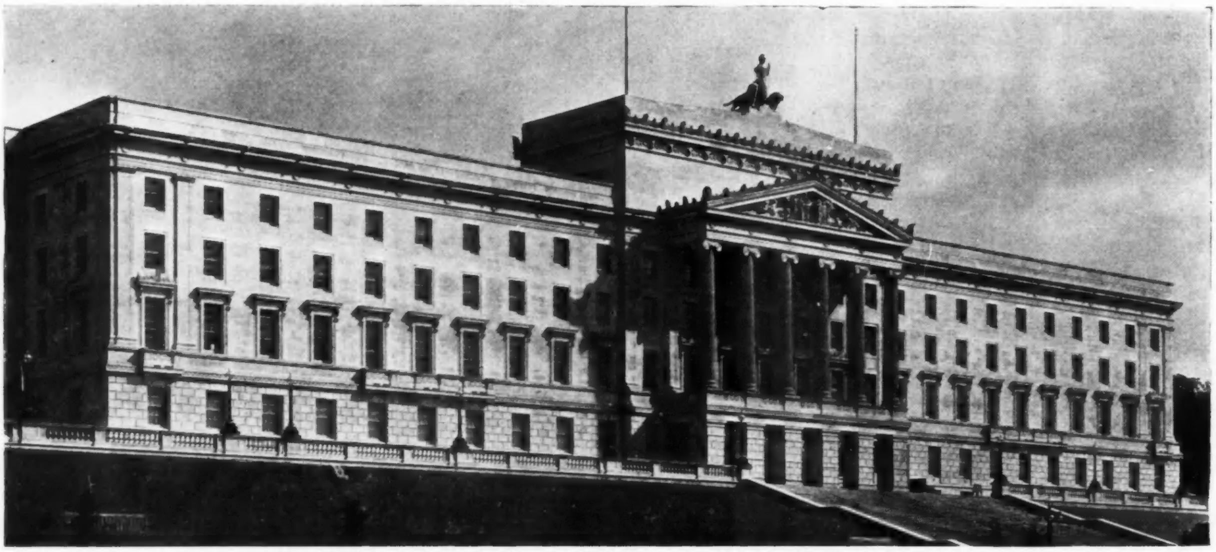
Martin's Bank, Liverpool. By Herbert J. Rowse.

Martin's Bank, Liverpool

Herbert J. Rowse's great bank at Liverpool, the headquarters of Martin's Bank, is, in its interior, in its general layout and in its efficiency, regarded as a machine for its combined purposes—as a great block of offices and as a great bank—probably the best building of its kind in the country. The sugar icing which covers the steel frame, too, is very prettily done, with more knowledge and a more consistent sense of scale than is usual in these buildings based entirely on tradition but stretched out to modern size. One says " entirely," but here the sculpture brings a fresh note. Mr. Tyson Smith has shown great invention, wherever the rules of the game have allowed him to do so, in providing new motives.

Southampton Civic Centre

Berry Webber's great block of municipal buildings at Southampton, called already with fine municipal enthusiasm a Civic Centre, though it is only the first block of four to be built, cannot well be judged apart from the other three. Everyone remembers when the competition drawings were published what



Northern Ireland Parliament Building. By Sir Arnold Thornely.

a fine composition the varied masses and the tower made. Of the detail of this first block one can say it is very restrained and meets the modern desire for simplicity in that way. One will not tire of it as one does already of most of Regent Street.

To the Editor of THE ARCHITECTS' JOURNAL.

DEAR SIR,—*Your effort towards the encouragement of greater activity in building cannot be too heartily commended. Costs at the present time are lower than they are ever likely to be in the future, and this fact alone should be an incentive, to all who are in a position to do so, to embark on the adventure of building. Moreover, " bricks and mortar," unlike so many other forms of investment, constitute a security that appreciates in value, provided a competent architect and a responsible contractor are allowed to co-operate in the operation.*

You will in the columns of your Journal be preaching the gospel to the converted, but if your message could be broadcast to the lay public, it would do much to counteract the ill-considered policy of so-called economy initiated by the Government a year ago with such disastrous results to the greatest industry in the country.*

Yours faithfully,

SYDNEY TATCHELL, V.-P.R.I.B.A.

* It will. [ED. *A.J.*]

National Provincial Bank

Sir Edwin Cooper's great building in the city for the National Provincial Bank falls into its place in the group of great banks round the Bank of England with admirable general effect. In this architecturally top-hatted neighbourhood its clothes are well cut in the best San Michele manner, though a few of the buttons look to me a little worried by minute chasing and carving. It is interesting when in the neighbourhood to walk up St. Mildred's Court and compare the detail of the work of the two Sir Edwins where they abut. One learns a good deal by doing so, as one could at Delhi in the similar places where one Sir Edwin is reputed to have said he had met his Bakerloo.

Northern Ireland Parliament Building

The Ulster Houses of Parliament, with a plan like that of an American State Capitol and with the detail of the later phases of the work of McKim, Mead and White, may be said to be repaying in compliments some of our debt to America. Apart from this, it is a severe, massive building, well-suited, one imagines, to the reputed Ulster temperament. One is glad the architect was knighted both for his own sake and because it is still good for the profession to have a few people so decorated.

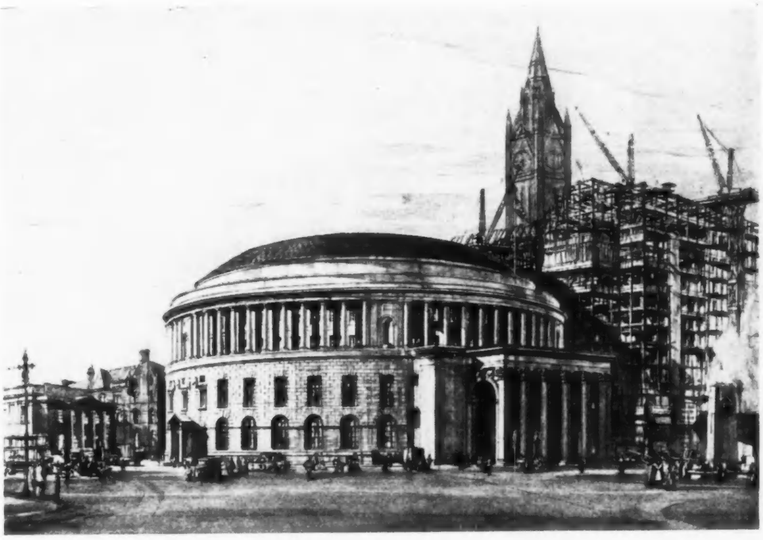
Unilever House

Unilever House on the Embankment, like the Ulster Parliament House, impresses by its unity. Standing opposite Blackfriars Bridge, on a fine convex sweep of the Embankment, the architects (J. Lomax Simpson and Sir John Burnet, Tait and Lorne) by the sweeping lines of their raised colonnade have made the most in their chosen manner of the fine position. The interior is very workmanlike, simple and strong, with a modern note not to be found on the exterior. A little public buffet, embodied in the building to preserve the licence, and approached up a side street, is a perfect little gem of modern colour and design, which gives one the same surprise as when one used to find Sir Michael Sadler's brilliant Van Goghs and Cezannes in the sombre Waterhouse classrooms of Leeds University.

Royal Bank of Canada

Best perhaps of all the Conservative buildings that have come to my notice is a Canadian one, a small bank—No. 6 Lothbury—by S. G. Davenport, of Montreal. Stanley Hall and Easton and Robertson have been connected with the building and have put a little of the modern spirit into the interior. The exterior, however, except for some highly-painted coats of arms, is a perfect example of the American respect for tradition which, like their respect for titles, is really far deeper than our own. In this case, however, the respect is shown in a combination of elegance and restraint everyone must admire in a building next door to a Wren one and opposite to a Soane one. If Sir Arnold Thornely has been repaying a debt to America Mr. Davenport has been repaying one to us, so unfortunately on balance we have got no further; but that is only to be expected in " As-you-were " architecture.

• BUILDING NOW •



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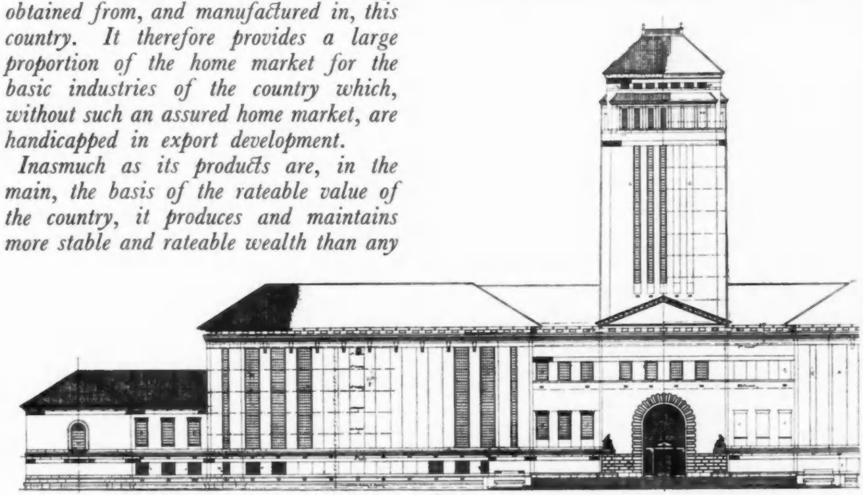
CORROBORATION rises upon corroboration that the violent form of creeping paralysis from which the Building Industry is suffering will have far-reaching effects on the social structure of the whole nation. A comparatively small number of buildings are being erected and all are reaping the benefit of the present-day low costs. A few are shown in the accompanying illustrations; but projects are curtailed all over the country, even though they would prove immediately remunerative. The minimum cost of the work held up or postponed by local authorities alone is estimated by the Public Relations Committee at £30,000,000.

Corroboration also rises upon corroboration that a revival of building would quickly radiate throughout the whole of British industry, and that the suggestions of the Committee for the rehabilitation of the Building Industry should be immediately adopted.

The raw materials are almost entirely obtained from, and manufactured in, this country. It therefore provides a large proportion of the home market for the basic industries of the country which, without such an assured home market, are handicapped in export development.

Inasmuch as its products are, in the main, the basis of the rateable value of the country, it produces and maintains more stable and rateable wealth than any other form of commercial activity, and is constantly providing new sources of public revenue.



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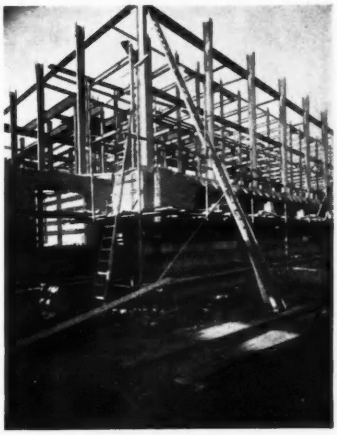

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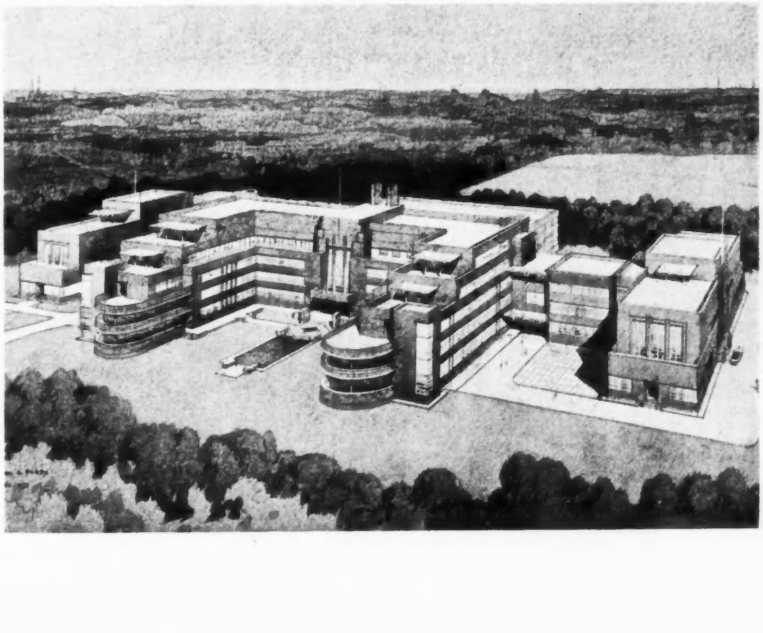
It creates a demand for the products of a greater number of ancillary industries and to a greater extent than any other industry.

The Building Industry is organized for the most efficient production.

●

(1) Manchester Reference Library (E. Vincent Harris), now in course of construction, is being faced with Portland stone.
(2) The University Library, Cambridge (Sir Giles Gilbert Scott), is being erected around two large courts. The steelwork is well advanced over practically the whole area of the building and in certain portions the walls are built up to the level of the first floor.
(3) Freemasons' Hospital, Ravenscourt Park, W. (Sir John Burnet, Tait and Lorne). The projecting wings will terminate in wide semi-circular balconies and the stepped roofs will provide sun traps.



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• BUILDING NOW • WORK IN COURSE OF CONSTRUCTION •

Save money by using it for building while prices are low and interest otherwise obtainable small. For every £1,000,000 devoted to new building and constructional work during 1933, the wastage on unemployment benefit and public assistance will be redeemed to the extent, it is estimated, of about £375,000.—SIR RAYMOND UNWIN, P.R.I.B.A.

It would be difficult to conceive a more advantageous time for building than the present; everything is in favour of the building owner. Prices of materials are lower than they are likely to be again for some very considerable period, and contractors are tendering at the lowest margin of profit and sometimes at even lower than cost. The speed at which contracts are executed makes for considerable increase in investment value.—ALFRED D. S. RICE, *President, London Master Builders' Association.*

All conditions point to the advantage of commencing works of a speculative nature or otherwise at the present time. Repairs, alteration and maintenance works held up might be done now with great advantage to the building owners.—J. A. BARKER, *President, National Federation of Building Trade Employers.*

Building costs will never again be so low as they are at present, and we feel that an upward tendency is bound to take place.—LESLIE AND CO., LTD.

We unhesitatingly advocate a progressing policy in the building industry at the present time. The prosecution of building schemes would undoubtedly inspire confidence and help to dispel the "depression" miasma which has been accepted by the world with such dire results. It is unlikely that building materials will ever be cheaper. — S. ROMILLY HALL, *President, National Federation of Associated Paint, Colour and Varnish Manufacturers of the United Kingdom.*

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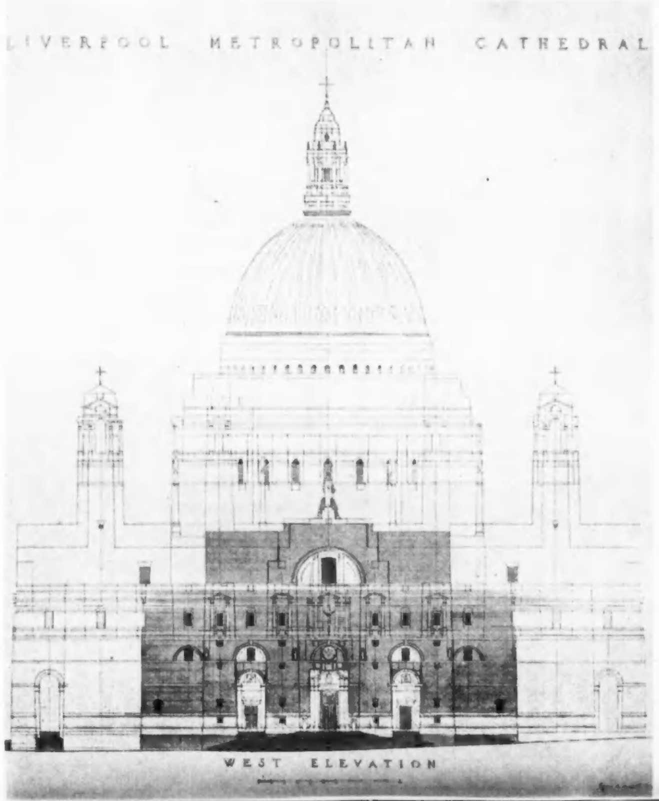

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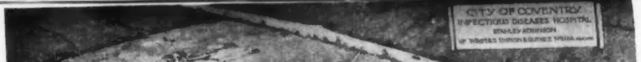
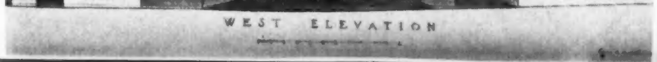
(4) Middlesex County Mental Hospital,



Associated Paint, Colour and Varnish Manufacturers of the United Kingdom.



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(4) *Middlesex County Mental Hospital, Shenley, Herts.* (*W. T. Curtis*). *It will consist of 48 buildings. The photograph shows about one quarter of the proposed buildings.*

(5) *Liverpool Metropolitan Cathedral* (*Sir Edwin Lutyens*). *The site is now being cleared and levelled. The foundation stone will be laid on June 5 next.*

(6) *The site of the new Staff Home for the Hospital for Sick Children, Great Ormond Street, W.C.* (*Stanley Hall and Easton and Robertson*). *The building will have a frontage to Guilford Street of 190 ft. and will rise 85 ft. above the pavement.*

(7) *Cumberland Hotel, Marble Arch, W.* (*F. J. Wills*). *The public rooms will provide seating for about 1,500 exclusive of a winter garden, lounges and a Mason Lyons Corner House seating 2,000. Eight bedroom floors will contain 966 bedrooms.*

(8) *Flats at Manor Fields, Putney Heath and Putney Hill, S.W.* (*Coleridge, Jennings and Soimenow*). *The scheme is estimated to cost £300,000.*

(9) *Infectious Diseases Hospital, Coventry* (*Wimperis, Simpson and Guthrie*). *Work was commenced last June and is expected to be finished early in 1934.*

(10) *Troxy Cinema, Commercial Road East, London* (*George Coles*), *will seat 3,500 and be fully equipped with three revolving stages.*

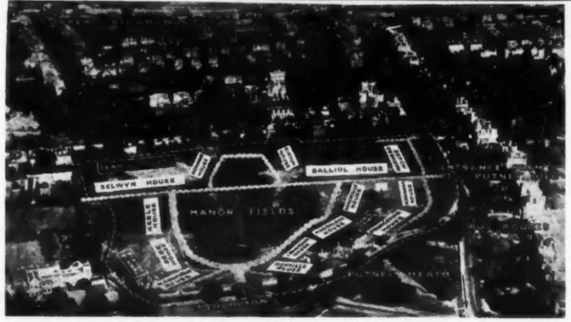
(11) *The Bloomsbury site of the new buildings of London University* (*Charles Holden* [*Adams, Holden and Pearson*]). *Excavation work for the first section of the building commenced last month.*

(12) *Bentalls' Store, Kingston-upon-Thames* (*Sir Aston Webb and Son*). *The first two sections have been completed.*

(13) *Battersea Power Station* (*Sir Giles Gilbert Scott, architect for the exterior; Halliday and Agate, architects for the interior; Dr. S. L. Pearce, engineer-in-chief*). *Approximately one half of the station is at present under construction.*

(14) *New Paper Mills, Dartford* (*Wallis, Gilbert and Partners*). *The work comprises four separate buildings and a water tower.*

(15) *Tuberculosis Hospital, Sully* (*William A. Pite, Son and Fairweather*). *Tenders will be obtained within the next few weeks. The full scheme of 300 beds will be proceeded with.*



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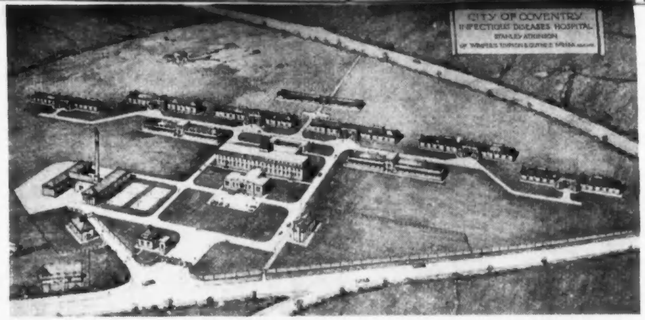

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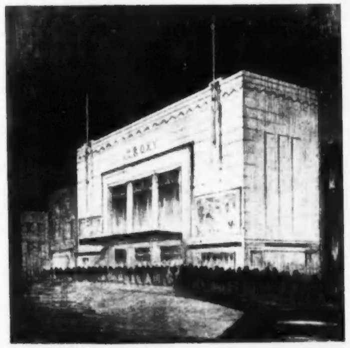

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UNIVERSITY OF LONDON
BASS

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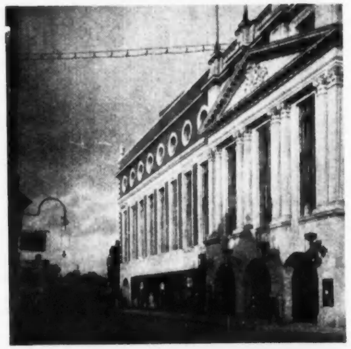

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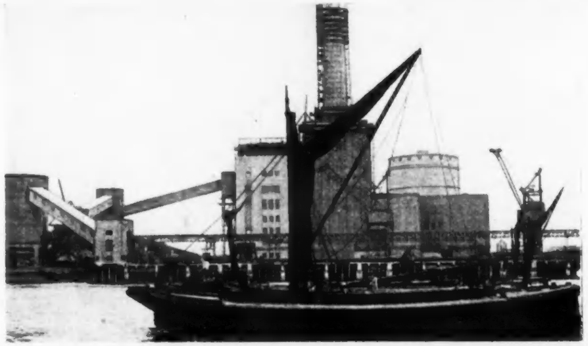

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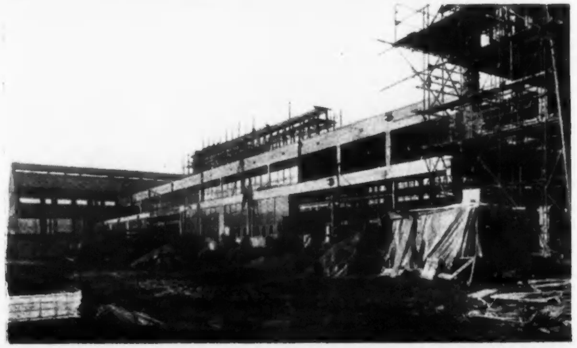

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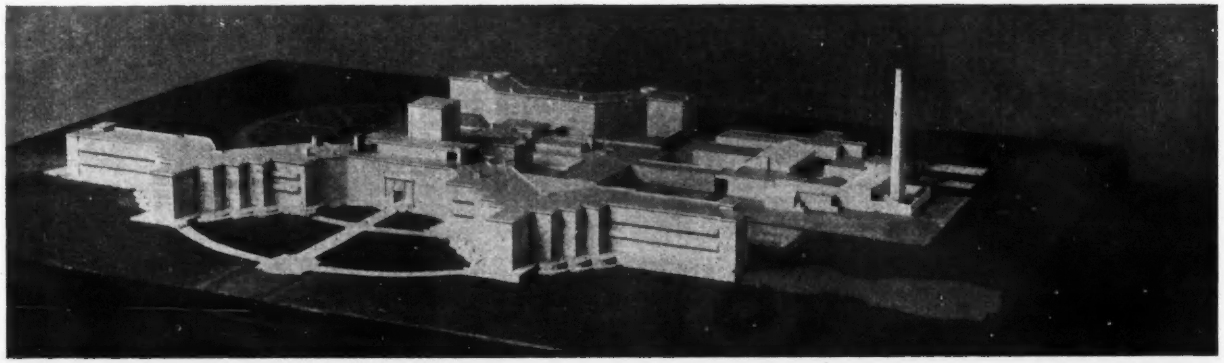

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PART II: ORGANIZE NOW

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THE PLANNING OF INDUSTRIAL EFFORT

[By WILLIAM RANDOLPH]

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My own prejudices are frankly individualist. . . . I am still clearer in my mind, however, that if we continue much longer in our present degree of individualist disorganization life will rapidly approximate to Hobbes' description of primitive life—solitary, poor, nasty, brutish and short. . . . The business world has come to realize that unrestricted competition means cut-throat warfare in which no one is strong enough to feel confident of being the victor.

From INTERNATIONAL AFFAIRS : THE STATE AND ECONOMIC LIFE, *by Sir Andrew McFadyean, formerly Secretary to the Reparations Commission.*

In the course of the last few years the Western world has gradually come to realize that there is something more in the Russian Five-Year Plan than a manifestation of Bolshevist doctrine. It has begun to ask whether Russia—and Italy too—may not be right in their insistence on national planning, however wrong they may be in their aggressive repudiation of the overriding claims of freedom. In this country the idea of planning has passed rapidly beyond the stage of being suspect for its communist connotations and has become perfectly respectable. The word " Planning " which was hardly ever used a few years ago except in such phrases as " Town and Regional Planning " has come into common vogue in political circles. . . .

It has taken a war unexampled in history for its destructiveness of material things and of human life, and a trade depression which has immobilized for want of employment more human beings than were ever mobilized at any one time on all the battle fronts of the war, to drive home the lesson that some better method must be found and applied to the ordering of man's economic life than the unregulated competitiveness of human beings guided solely by their own self-interest, however enlightened.

From PLANNED MONEY, *by Sir Basil P. Blackett, Director of the Bank of England.*

THE CRITICAL MOMENT

AT every critical period in economic history, a time comes when all the forces making for reconstruction coalesce and cause a powerful effort which in time conquers obstruction and brings new vitality. The question which is agitating the minds of the more intelligent observers is this :—Has the critical moment in our present crisis arrived when we can expect some change to take place? Superficial indications would merely point to an intensification of the difficulties confronting us and not to any strong urge towards reconstruction. All the factors which have been stigmatized as contributory to depression are apparently gaining a new lease of life—the growth of economic nationalism, the further erection of tariff barriers, above all in countries which at one time were free trade, the controversies over war debts and reparations, isolated indications of militarism overcoming political sanity, as in the Far East and South America, the determination to carry out deflation to the bitter end, and the cessation of all public works and construction, whether productive or non-productive.

DECLINE?

Yet it would be a mistake to confine attention wholly to those things and assume that the political capacity and the economic intelligence of the world have become paralysed and that we are confronted with a definite and probably rapid decline in our industrial civilization. If one looks more closely, one can find indications of recuperative power, and this recuperation is tending more and more towards the institution of control over economic factors which at one time were allowed to operate in complete independence and, as a consequence, were not hindered in any way from producing chaos as a condition of free operation.

ITALY AND RUSSIA

This tendency at its extreme point is, of course, illustrated by State control of the whole life of the people, including production, distribution, finance, commerce and transport. It is exemplified by the Russian Five-Year Plan and by the corporate state as developed by Mussolini, a State which bears very marked resemblances to that evolved by the Soviet and is due to the same

What then does "Planning" mean? First and foremost it stands for a political philosophy which is the antithesis of *laisser-faire*. The nineteenth century believed that in *laisser-faire* it had discovered an automatic and self-regulating economic system, which nothing but unwise governmental interference could prevent from promoting public well-being. . . . The twentieth century is now painfully discovering that this automatic self-regulating system was a myth, and that the marvellous material prosperity which the world enjoyed in the seventy-five years before 1914 was not due to the supposed merits of this system, but to a fortuitous combination of circumstances, essentially precarious and ephemeral, which has now passed away.

A distinction should be drawn between forward Planning and the framing of a Plan. Planning must, as has been said, be dynamic. A Plan cannot avoid the appearance of being static.

From PLANNED MONEY, *by Sir Basil P. Blackett.*

habit or direction of thought. Of the two, the Italian experiment appears to be more successful, because it does not aim at being so completely all-embracing; it is confined at the moment to the more effective utilization of the economic resources of Italy in agriculture, principally as shown in the draining of the marshes round Rimini, Ferrara and Ravenna and Venetia, by the opening up of the Campagna and the introduction of irrigation on an extensive scale in Puglia, in electricity supply through the financing of large water-power plants in the Alps and the construction of main transmission lines linking up those resources with the main centres of industrial activity and of population and by the electrification of long stretches of railway running out of Turin, Genoa and Naples. Its most recent form can be seen in the rebuilding of Rome and the development of arterial roads throughout Central Italy. Italy does provide a remarkable example of what can result from the application of order and centralized control to the basic economic activities of the country, in its way a much more remarkable thing than the enormously varied and dissipated effort of the Russian Soviet.

THE UNITED STATES

At its least extreme point, the movement is shown by the sporadic efforts towards public works activities in the United States, efforts which have been associated with economic waste of the most extreme type and with acute dissension between the individual States and the Federal executive. In its most recent manifestation it has been shown in the technical amalgamation of the principal railway companies, with the assistance of the American Reconstruction Finance Corporation, the operations of the Farm Board and the close investigation of the activities of holding companies, above all in the public utilities. In a less practical sphere it can be seen in the very widespread discussion of economic planning which is taking place, principally in academic circles, in the United States. The important thing to note is that even in the nation which has no tradition of State control or public guidance, for that matter, in industrial and economic affairs, the desire to ensure more effective utilization of the economic resources of the country by combined effort is slowly finding expression in action.

GERMANY

It is possible to strike an intermediate course between the Mussolini corporate State and the somewhat chaotic *laisser-faire* state of the Republican party in the United States, and in Great Britain and Germany this mid-way stage has already been reached. Germany does provide an almost perfect instance of national economic reconstruction through co-operative effort on the part of industries assisted and encouraged by the Government. The rebuilding of iron and steel works, the re-grouping of coal mines and potash works, the concentration of chemical production, the building of new transport and communication facilities, the construction of large water-power plants and the elaboration of main transmission systems interconnected over the principal industrial areas of Germany, the opening up of new agricultural territory, principally in East Prussia and Bavaria—all this has taken place as a deliberate policy working along lines already carefully determined. Financial difficulties, associated principally with reparations, have, of course, disturbed and in some ways diverted progress, but reparations at best are only a temporary phenomenon, while the economic reconstruction of the country remains. One can see further indications of it in the progress of Germany both in marine and air transport.

Now, in Great Britain, the conditions necessary for combined effort are not so favourable as in Germany, where practically all industries of any importance are organized in cartels and the State itself has been a large shareholder in innumerable productive enterprises.

GREAT BRITAIN

Our industries have not been organized in the type of cartel which has become current in German practice; they are, with few exceptions, linked together in price-fixing arrangements, but combination begins and ends at price fixing—it does not bear on competition outside of price and does not aim at control of productive capacity. Consequently, the reconstruction of our economic life is moving in a different direction and may in the future be even more productive of success than the German or Italian or Russian experiments.

We are moving slowly towards some conception of co-ordinated national effort, largely because the forces of competition and of *laisser-faire* have exhausted themselves and there is apparently nothing to take their place.

THE MINISTRY OF RECONSTRUCTION

The first experiments in such centralized activity were, of course, during the period of reconstruction at the end of the War, when industrial experts came together to serve more efficiently the nation at its time of greatest economic stress. Many of the ideas

All this clearly requires a regulating or planning body in possession of statistical information and means of measuring current economic and social happenings far more complete and accurate than are at present available. This country has much to learn from abroad, for example from Germany, the U.S.A. and some of the British Dominions, in the technique of gathering and applying statistical data. One of the most immediate preliminary steps towards national reconstruction ought to be a thorough overhaul of existing statistical methods and machinery. The need for this must be becoming increasingly felt by the Tariff Advisory Committee which already presents some of the characteristic features of a National Planning Commission. It is impossible to approach questions such as a Tariff on Iron and Steel, or on Pig Products, without becoming involved in the problems of efficient organization of industry and rationalized marketing methods. The setting up of the Tariff Advisory Committee provides a good illustration of the fact that the National Government has already moved far in the direction of Planning, without as yet publicly adopting the philosophy of Planning or making clear to itself or to the country the full implications of what it is doing. The fact that this Committee is advisory and not executive is specially important for the purposes of the present discussion, since it suggests strongly that it is possible to adopt Planning and set up a National Planning Commission without superseding either the Cabinet or Parliament and without dragooning the producer.

From PLANNED MONEY, *by Sir Basil P. Blackett.*

put forward at that time proved rather wasteful in execution and no one can claim, for example, that the economic machine, even with the degree of centralization and co-ordination then attempted, worked with a high standard of efficiency. But the important thing to note is that it did work and met a strain which otherwise would have proved too much for our resources.

COAL

Between 1918 and 1929 no developments of any importance took place, but between 1929 and 1932 progress has been achieved in almost a revolutionary fashion. Thus, the Coal Mines Act is an example of rationalization on a purely regional basis, which, through incompleteness, has not really achieved the benefits of rationalization. Each district is subjected to quota and price regulation of the most drastic type and there is no co-ordination between districts and, until recently, no real conception of the possibilities of economic expansion in the coal industry itself. It is a remarkable circumstance that in the last few months the coal industry should be devoting its attention to the possibility of national co-ordination and standardization of product and price and to the proper allocation of quotas between one district and another. It has, in its Coal Utilization Council, embarked on educative and research work, designed to improve the economic status of the industry and widen its range of supply.

IRON AND STEEL

In iron and steel a series of committees, inspired by the Tariff Advisory Board, are studying the possibilities of co-ordination on a regional basis with ultimate national co-ordination, although in this case a large number of price-fixing associations and agreements and the presence of international arrangements have contravened deliberations and created a whole series of conflicting interests, not necessarily coincident with national economic welfare.

COTTON, WOOL AND ENGINEERING

The three main exporting industries, which are still without co-ordination of any kind and are still bereft of any conception of planning, are cotton, wool and engineering. The chemical industry is held together in one enormous group which has evolved important regional plans that have not yet come into full operation, possibly owing to the fact of the trade depression. In the case of engineering, some co-ordination already exists in electrical manufacture on the heavy plant side, and the fact that the principal consumers of this industry, such as the Central Electricity Board, the Post Office and the great public services generally, are already fully organized and in a position to insist on some measure of standardization and co-ordination in production, makes it quite certain that planning will become reality, if only through induction.

Consequently, one is left with textiles and general engineering trades among the principal industries of the country, and the circumstance that the cotton and wool control boards were easily the most successful during the war in their functions, makes one think that with a little guidance those industries could tackle their own troubles with some prospect of success.

The Agricultural Marketing Act has already laid the foundations for an entirely new order in agriculture. The Report of the Pig Reorganization Commission is an extraordinary example of co-ordination worked out in its last detail, covering what might be a very large industry, and the plan of control aims above all at increasing enormously the output of the industry.

THE PIG COMMISSION

In this respect it is quite different from the plans proposed for the heavy industries generally, where the principal object has been restriction and adjustment rather than expansion, and it bears some resemblance to the proposals of the Central Electricity Board, which are based on the assumption that the demand for electricity can be and will be greatly stimulated during the next ten years. The points of comparison between the proposals of the Pig Commission and the work carried out by the Central Electricity Board are much greater than the points of dissimilarity. It is almost certain that similar proposals will apply to milk, and the operation of the wheat quota may lead ultimately to the proper planning of wheat production.

TRANSPORT

The new London Transport Bill does provide also for co-ordination of transport within the London area, under a central executive board which is apparently independent of political influence and will operate with the sole view of obtaining efficiency consonant with a reasonable return on the capital invested in the enterprise.

THE AVOIDANCE OF NATIONALIZATION

Now, the characteristic of all those developments has been the avoidance as far as possible of nationalization or State control. The industry has received legislative assistance in its efforts to effect joint working and overcome the obstruction caused by excessive individualism, with the result that the best elements in those industries, particularly on the administrative side, have been given some real encouragement to aim at economic reorganization. It is too early yet to decide what measure of success has attended or will attend those experiments in the near future, but they show that the British conception of economic planning is a typical British compromise between rigid national control, as practised in Italy and in Russia, and financial amalgamations or trusts as practised in the United States and, to some extent, Germany.

Perhaps the best examples of such co-ordination under some form of public control are the British Broadcasting Corporation and the Central Electricity Board.

THE PORT OF LONDON AUTHORITY

There has been a tendency to confuse those organizations with such bodies as the Metropolitan Water Board, the Port of London Authority and the various Docks and Harbour Boards, which were brought into existence to administer and consolidate a local monopoly, a monopoly which was previously administered by a whole series of individual undertakings, none of them large enough to make the fullest use of the technical conditions governing their branch of the public utility industry. The Port of London Authority and the Docks and Harbour Boards are financed by the issue of stock, and normally do not earn profits. In this they should be distinguished from the various canal companies, such as the Manchester Ship Canal Company, but their functions are not noticeably different. They have not a national monopoly in any sense, and their activities are limited to a realization of higher efficiency in providing a local public utility service.

THE BRITISH BROADCASTING CORPORATION

There is a considerable difference between the British Broadcasting Corporation and the Central Electricity Board, not only in constitution, but in methods of finance and of obtaining revenue. The British Broadcasting Corporation is a Government department controlled by the Post Office, and it derives its revenue from the proceeds of licences issued to broadcast listeners. It is financed, therefore, through a form of taxation, and its capital expenditure has been (with the exception of an overdraft on the bank, raised in connection with the construction of the new building) derived from revenue.

THE CENTRAL ELECTRICITY BOARD

The Central Electricity Board, on the other hand, is a public corporation, very similar to an ordinary industrial company. It raises its capital in the open market and its capital expenditure is sharply distinguished from revenue. The Board itself is different from an ordinary industrial board in the sense that it is not elected by shareholders but is nominated by the Minister of Transport and is sufficiently small in number to ensure rapidity of decision and co-operation in the realization of policy.

It is unnecessary here to go into the history of the formation of the Central Board. Like other developments in this direction, it dates from the period of reconstruction, and is, perhaps, the only instance on record of proposals put forward by experts attached to the Ministry of Reconstruction being translated into practical shape. From the Williamson and Haldane Reports of 1917 to the Weir Report of 1925 there is an even transition, inasmuch as the Weir Report underlined the main recommendations put forward in previous reports and showed what should be adopted to put them into operation.

The Weir Committee distinguished between the two functions of production and distribution, the former of which may be more easily rationalized, although the latter is its due complement, and recommended that a new central organization—the Central Electricity Board—should be created to co-ordinate the production of electricity throughout the country, to reduce the cost of generation by concentrating production in relatively few highly efficient stations which were to be interconnected by a main transmission system operating at 132,000 volts. They suggested that 58 selected stations were sufficient, 15 of

A study of the similarity between the Government's agricultural policy and the " grid " organization of the Central Electricity Board may provide a clue to what the new model for industry ought to be. This is an interesting association of an experiment with a demonstrable success. Freedom in efficient production is linked with freedom in efficient distribution by a co-ordinating board, exercising initiative and stimulating enterprise and development.

THE TIMES

Planning as here conceived is a policy poles asunder from State Socialism with nationalized industries, nationalized land, a State medical service, and a thorough-going regimentation of every phase of the citizen's life.

From PLANNED MONEY, *by Sir Basil P. Blackett, Director of the Bank of England* which should be new, while 432 stations should be closed down. Reserve plant could thus be dispensed with, since stations were interdependent, some taking the base load, others the peak load. The Committee further considered that an indispensable factor in this scheme for national transmission was standardization of frequency, which they proposed to make 50 cycles, as this was the most usual frequency obtaining among generating stations at that time; and they provided for a certain amount of compulsion in the carrying out of their proposals. These were given legislative force in the Electricity (Supply) Act of the following year, 1926.

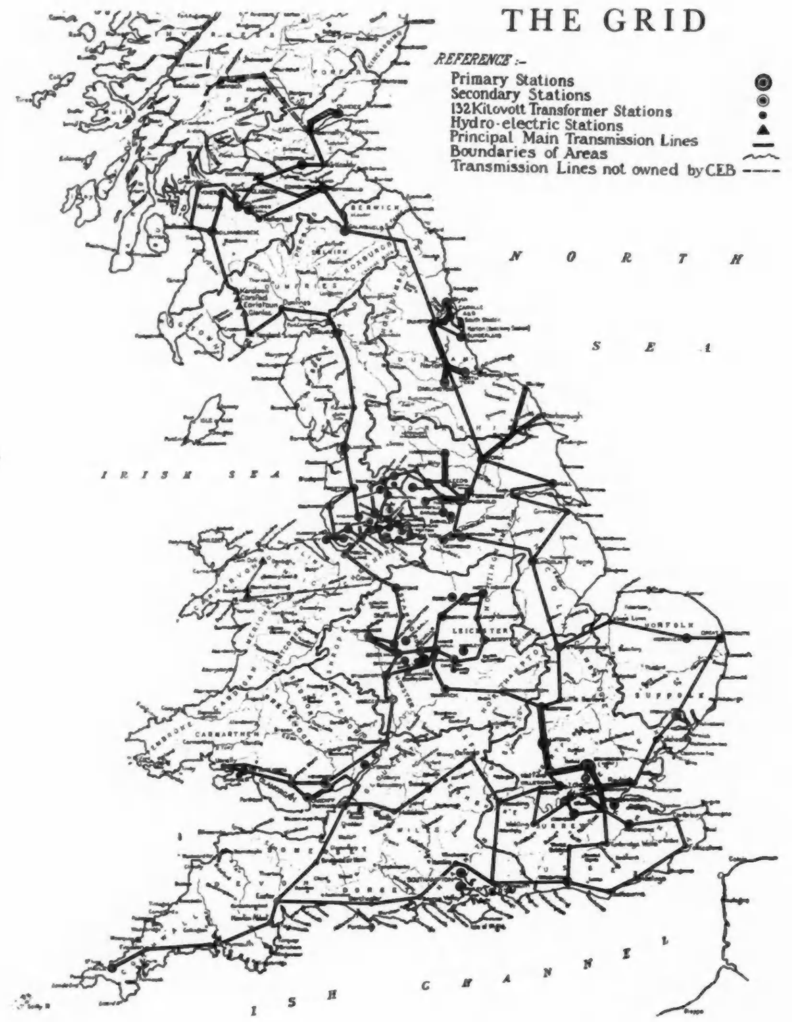
MAKE-UP OF THE BOARD

The Board itself is nominated by the Minister of Transport, who, in selection, has paid attention to special qualities for membership of this Board, such as knowledge of industrial administration, finance, and the control of large manufacturing groups. Some attention has been given to interests involved in or affected by the national power scheme, such as the railways, labour, local authorities, electricity supply companies; but ability has been the principal test of selection. Parliamentary control over the activities of the Board is limited by the Supply Act of 1926, and is no greater than it would be in the case of an ordinary supply undertaking which, under present legislation, must obtain the approval of the Electricity Commission for raising capital for the construction of generating stations and for the erection of transmission lines. The Board can make its own arrangements with supply undertakings, fix its own tariffs and control absolutely its own administrative organization. It is, consequently, a new type which combines public control with a very large measure of independence in operation, and the criteria of success are those which obtain in industry generally without any reference to the Government or to a Government department.

FUNCTIONS OF THE BOARD

The main functions of the Board are:—

I. To concentrate the output of electricity into a number of generating stations selected for their efficiency and low operating costs, to construct a transmission system which would interconnect those stations, and in this way improve load factor and general operating conditions.



THE GRID

For the purposes of the scheme, 4,027 miles of transmission lines are required, 2,891 representing lines operating at 132,000 volts and the remainder operating at 33,000 and 66,000 volts. The most extensive areas are South-East England, South-West England and South Wales, North-West England and North Wales and Mid-East England.

Construction work on lines operating at 132,000 volts is completed in Central Scotland, South Scotland, North-East England, North-West England, Mid-East England, East England, and is approaching completion in South-East England. In secondary lines operating principally at 33,000 volts, construction is complete in Central Scotland, North-East England, Mid-East England, Central England and East England, and is virtually finished in South-East England, and it is calculated that the entire construction work will end in the late spring of this year.

The map shows the principal transmission lines operating at 132,000 volts, linking up the whole country into one unified power scheme. For each of the eight areas into which the country is divided (East England being included with South-East England), a central control room has been or will be built, so that, ultimately, eight control centres will be established for the operation of the selected generating stations, to the number of about 135, with 263 substations, and ultimately one control room for the whole country, probably in the North.

The principal arrangement is clear; main transmission lines run north and south, on the east and west, with lines linking them up running transversely across the central area with extensions outward to tap counties on the extreme east and extreme west. North Wales remains outside of the Grid to some extent, since it is already served by a very complete main transmission to the North Wales industries, sea resorts and Crewe. In the Highlands, the Loch Rannock water-power schemes feed into Central Scotland at Abernethy, while a new water-power scheme is being developed in Galloway, which will feed into North-West England. When the national Grid is complete, the capacity of all plant, directly or indirectly under the Board, will probably exceed 9,000,000 h.p., 2,000,000 h.p. in South-East England.

II. To standardize frequency of generation at A.C. 50 cycles throughout the whole of Great Britain, so that interconnection could be carried out and a national power system be created, capable of functioning smoothly from one district to another.

III. To take over the entire output of selected generating stations and sell them to authorized distributors, the selling price to be composed of a fixed charge based on the kilowatts of maximum load and a running charge covering the costs of production.

For the purposes of the National Power Scheme, Great Britain has been split up into nine areas, namely, Central Scotland, South Scotland, North-West England, North-East England, Mid-East England, East England, Central England, South-West England and South-East England, all of them under the control of a regional body responsible to the national organization, so that one has here an example of national and regional planning directed to the sole end of effecting co-ordination in an important public service and to introducing the most modern methods of operation, so that a reduction in cost may be realized and a high national average of efficiency obtained.

EXIT LAISSER-FAIRE

It is unnecessary to go into further details with regard to the Central Electricity Board, because the important matter is not so much what has been achieved in electrical development as the methods which have been adopted to concentrate the national effort in the direction of greatest value. It may be found, for example, that every industry requires its own type of organization to achieve the most economic results. It would be a mistake to advocate mere imitation, but it is sufficiently clear that the benefits resulting from combined effort are greater than those which might have resulted if undiluted *laisser-faire* had been retained as an active principle.

Now, the motives of those who were responsible for the co-ordination of electrical development were not solely idealistic. The electrical manufacturing industry, for example, in supporting the idea of a national power scheme, saw quite clearly that the work of creating this enormously powerful weapon of co-ordination would entail a vast amount of activity in its workshops, so that the national power scheme is a good example of that type of public works activity which is productive in every sense.

BENEFITS OF ORGANIZATION

It benefits a whole series of industries through the contracts awarded in construction; it will, when it is in full commercial operation, have a beneficial effect on the supplies of an essential commodity and on the cost of such supplies for general distribution. It also makes certain that changes in technical and scientific development can be tackled by a body most competent to deal with them, as far as they affect the generation and main transmission of electricity, and it creates what may be a very powerful force making for electrification, and even economic reconstruction, based on modernization of equipment and electrification of manufacturing processes.

THE LONG-TERM VIEW

The tendency of contemporary thought is undoubtedly towards combined effort and co-ordination, and the industries which are capable of the long-term view and are prepared to make full use of that tendency will no doubt find a reward for any real achievement they have to their credit in such a direction.

ARCHITECTURAL EFFECTS *OF* THE GRID

[By Adam Gowans Whyte, B.Sc.]

ABOUT a quarter of a century ago one of the leading members of the electrical industry wrote a pamphlet on "Industrial Redistribution." He pointed out how steam power had led to the building of factories and dwellings round the centres of production, and how electric power, which could be economically transmitted over long distances, would enable factories to be established in open country. Electricity would thus reverse the centralising tendency of steam. The age of steam was marked —and marred—by the aggregation of population; the age of electricity would bring a segregation of industrial centres and consequently of the bulk of the people.

This vision has been realized to some extent, but not, perhaps, so fully as its author expected. The effect was delayed because the development of the cause itself took a long time. Electricity supply began on a parochial plan, with the local government area as the unit of production and distribution, and although various electric power enterprises were established to supply electricity wholesale over hundreds of square miles, the industry continued until recently to present a picture of numerous stations of comparatively small size distributing current within restricted areas. We now have a national system of generation from a small number of selected stations linked together and pouring their supplies into the Grid, which forms a pool from which distributing undertakings in all parts of the country can draw practically unlimited amounts of electricity.

While this revolution has been taking place on the production side, there has been a marked development of distribution in rural areas previously neglected. Within the next few years such development is certain to proceed with increasing rapidity. The net effect is that electric power may be considered to be available on practically every site, rural as well as urban. Anyone who is planning to establish a new industry has a very much wider choice of location, so far as power is concerned, than he enjoyed in previous years.

Another consequence of the spread of electrical facilities is that the workers attached to *any* industrial centre can enjoy the amenities and conveniences of electrical service. The contrast between the urban dwelling, with its electric lighting, heating, cooking and labour-saving, and the rural dwelling, with its more laborious methods of operation, is gradually disappearing. The material comforts of country life are being raised towards the town standard.

These developments will be assisted by the reorganization on a larger scale of the distribution of electricity. For engineering reasons a national basis was chosen in production; in the case of distribution the tendency is to adopt regional planning, a number of distributing authorities being grouped together and operated through a central organization. The evolution of such regional distributing authorities is, in fact, the next problem to be tackled by the electrical industry, and its solution will enable the supply of electricity to come into line with regional planning in building.

The more clearly these broad changes are realized, the more will we appreciate the opportunity not only of laying out new centres of population to take full advantage of modern electrical facilities, but also of adjusting our domestic architecture to suit them. Hitherto we have been content, in the main, to superimpose electrical equipment upon structures of the traditional type. With the prospect of cheap and abundant electricity becoming universal, we can tackle the problem of designing houses where the special characteristics of electric lighting, heating, water heating, cooking, refrigeration, and cleaning are taken into consideration at the outset of planning and not as an afterthought. There is ample scope here for originality and ingenuity and for a fuller development of that co-operation between architect and electrical engineer which has already been so fruitful in the lighting field.

PLANNING
IN THE
MAIN INDUSTRIES

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BENEFITS OF REORGANIZATION

The time has gone when an important industry can maintain its right to run its business inefficiently; with our present social services the cost of its inefficiency is largely borne by the State.

Sir Andrew McFadyean.

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NATIONAL PLANNING IN THE COAL INDUSTRY

[*By EVAN WILLIAMS, D.L.*]

PRESIDENT
of
THE MINING ASSOCIATION

THE fact that the output capacity of the coal mines of Great Britain is considerably greater than the demand for their coal has led to the regulation of both production and price, and the industry is now engaged in examining the results of that regulation in the light of two years' experience.

But it is not sufficient to control production and to co-ordinate prices. It is essential to expand the market. For this purpose the Coal Utilization Council has recently been formed by the Mining Association, the National Council of Coal Traders, the Coal Merchants' Federation and the British Coal Exporters' Federation. Thus, for the first time, a body representative of the whole industry is charged with the tasks of Market Research and Commercial Publicity.

The Council is carrying out a systematic enquiry into the problems and preferences of consumers of fuel, both industrial and domestic, and is particularly interested in the views of architects on this subject.

It is also examining the numerous appliances for burning coal in all its forms now on the market, some of the newest and most efficient of which are not as fully known as they should be to the general public or even to architects. It is prepared to recommend, without bias, such appliances, burning coal or a derivative of coal, as are suitable for given conditions, or will solve a given problem.

When its investigations are complete the Coal Utilization Council proposes to undertake propaganda on a wide scale with the object of bringing home to the British public the advantages, direct and indirect, from the point of view of economy, efficiency and health, of using British coal.

An increase in the consumption of coal, in all its forms, means the employment of more miners, with the result that their purchasing power will be increased and the burden upon the State of unemployment pay diminished.

By the substitution of British coal and its derivatives for imported fuel the strain upon our trade balance will be eased and the exchange value of the pound supported. For these reasons all sections of the coal industry are agreed in regarding the Coal Utilization Council as having an important place in the plans for national economic recovery.

NATIONAL PLANNING IN THE CHEMICAL INDUSTRY

[*By H. J. MITCHELL*]

DIRECTOR
of
IMPERIAL CHEMICAL INDUSTRIES

THE chemical industry is regarded, and with some justice, as the prototype of modern British industrial planning. In 1917 the Association of British Chemical Manufacturers provided the industry with authoritative representation in the councils of the nation. The Association has affiliated with it the Association of Tar Distillers, the Bradford Dyers' Association, the British Chemical Plant Manufacturers' Association, the British Cotton and Wool Dyers' Association, the British Disinfectant Manufacturers' Association, the British Sulphate of Ammonia Federation, the British Wood Distillers' Association, the Fertilizer Manufacturers' Association, the National Benzole Association, the National Sulphuric Acid Association and the Wholesale Drug Trade Association. All these bodies are concerned either with the co-operative marketing of their particular products or with the more rational control of the industry carried on by their independent member firms. These common services which are rendered eliminate undesirable competition, without resorting to anything like the State interference in

Italy and Russia on the one hand, or even the rigid cartel organization of Germany on the other.

Simultaneously, another set of factors has been at work. Even before the war the United Alkali Company welded together a large number of separate producers. As one achievement of the A.B.C.M. the dye industry was slowly built up by a definite governmental policy. At the close of the war the explosives industry was consolidated in a single unit—Nobel Industries, Ltd.—and the infant nitrogen scheme of the Government was weaned by Brunner, Mond & Co. for peace instead of war. In 1926 these movements culminated in the formation of Imperial Chemical Industries, Ltd. This is a single business unit, differing only in size from others, but whereas a small firm can be run efficiently on individualistic lines, in a large one co-ordination and planning are essentials.

A combination of co-operation by association and co-operation by merger is shown by the close arrangements existing between, for example, the British Sulphate of Ammonia Federation, and Imperial Chemical Industries, Ltd., in the world marketing of nitrogenous fertilizers. Again, I.C.I. are co-operating with the British Steelwork Association in exploring problems which involve joint study by the metallurgist and the chemist.

This leads to a matter of fundamental social importance and of special interest to the architect—slum clearance. Slums persist because the economic conditions do not encourage property owners to assist in the problem. By co-operation, however, between the steel industry and the chemical and other industries supplying raw materials, the Building Research Association, tackling the problem from the scientific point of view, and the Government, attempts are being made, such as the recent revision in building regulations and the investigations into the strengths and weathering of materials, to reduce the cost of building in order that the individual landlord or, alternatively, the State, in cases of compulsory clearance, shall not be out of pocket. This is only one instance of the objective which planning places before itself.

With true co-operation planning does not stop short at production. In the modern world scientific distribution is even more necessary than scientific production. As far as may be consistent with the taste of the individual, consumption also is being planned. Where the buyer and seller from past experience have learnt to trust each other, they can co-operate in the solution of their mutual problems.

NATIONAL PLANNING IN ELECTRICITY SUPPLY

[By SIR HUGO HIRST]
CHAIRMAN
of the
GENERAL ELECTRIC CO.

THE electrical industry is about fifty years old. It belongs almost wholly to the period in which organization on the large scale has been the standard of efficiency and progress. Naturally, therefore, one would expect it to present an unusually complete picture of rationalization and co-operative action. The expectation is largely fulfilled, but only within recent years and at the cost of great effort.

In the early stages of electrical manufacture the individualist tradition of British industry was dominant. Production was carried on by a large number of comparatively small firms whose mutual competition was intensified by the rivalry of electrical manufacturing groups in protected countries, capable of covering the whole electrical field on mass-production lines. The destructive effects of this arrangement became so acute that previous to the War the necessity of reform was realized and some steps taken towards bringing it about; it was not, however, until after the War that the industry put its house in order. On the one hand, the manufacturers, either by extending their operations or by amalgamations which eliminated redundant forms of production, replaced many small centres by a few large organizations capable of covering the whole field of electrical manufacture.

On the other hand, the various firms, both those of universalist type and those specializing in certain lines of manufacture, formed the British Electrical and Allied Manufacturers' Association for the defence and the promotion of their common interests. Other branches of the electrical industry became organized in a similar fashion. When desired, these organized bodies co-operate with each other. They are, for example, represented on the British Electrical Development Association, which concerns itself with national propaganda and publicity.

A corresponding type of progress has been achieved in connection with the production of electricity itself. Under the Central Electricity Board the generation of electricity, instead of being conducted by a large number of small independent stations, is now concentrated in a limited number of selected stations linked together and pooling their production in a national network of high tension mains—the Grid—from which all the distributing undertakings draw their supplies. The rationalization of electrical production could hardly have been brought to a successful issue without the previous rationalization of electrical manufacture, which gave us an industry with the capacity, the technical skill and the efficiency to meet the exacting demands of the modern power station and transmission system.

The main problem now confronting the electrical industry is to organize the *distribution* of electricity on the same lines as the production of electricity and of electrical plant. The supply undertakings are the link between the Grid and the general public, and they are still operating for the most part as disconnected units in limited areas. The conviction is growing that electrical service, in its full meaning, to industries and to the domestic consumer will become possible only when the undertakings unite in developing their distribution mains, their methods of salesmanship and their facilities for wiring premises and hiring apparatus, on up-to-date lines with popular tariffs. Great Britain is now able to produce on the cheapest basis all the electricity required for every need, including the electrification of all suburban and main line railways. Our manufacturers are able to produce, again on the most efficient lines, all the electrical plant and apparatus that consumers, large or small, may require. All that remains is to bring the full measure of these triumphs of organization into the daily lives of the people.

NATIONAL PLANNING IN THE STEEL INDUSTRY

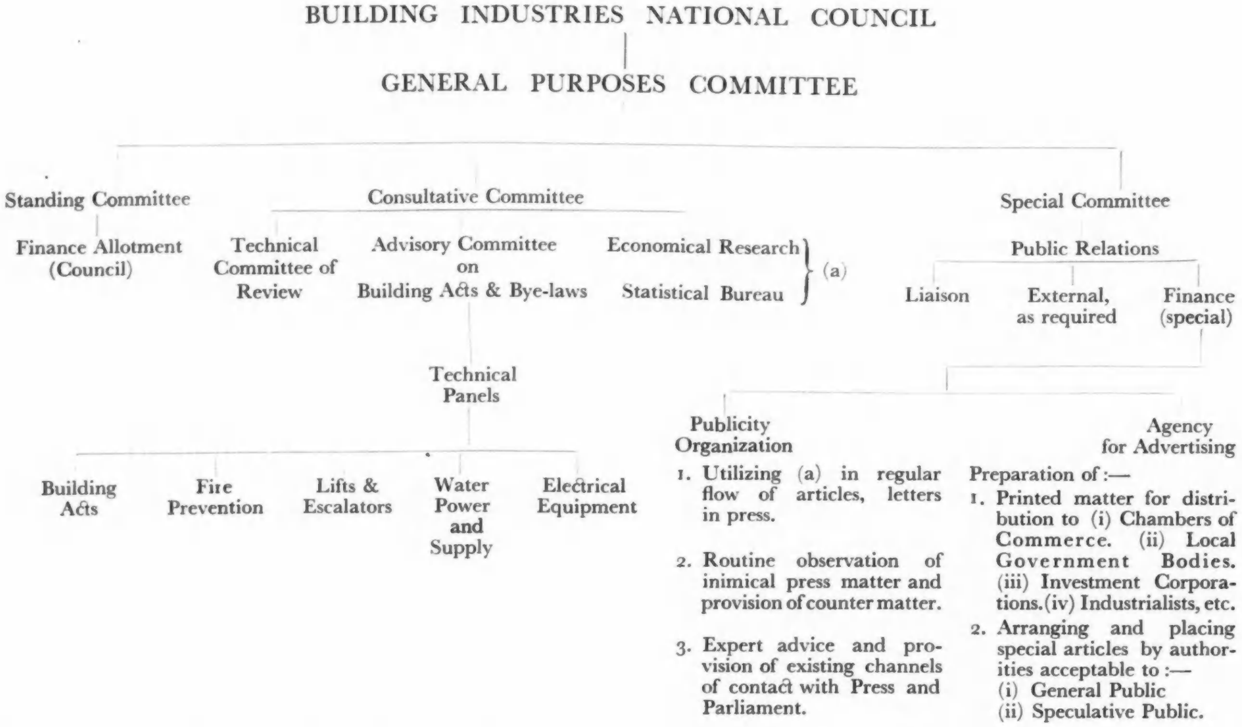
[By C. J. KAVANAGH]
DIRECTOR
of the
BRITISH STEELWORK ASSOCIATION

UNDER the impetus of the economic policy which the country has now adopted, the New Year will undoubtedly show a great deal of progress in the planning of one of our most important basic industries—steel.

Steel, as the pivot of our industrial life, is of prime importance to national welfare, and the reorganization of the industry will infuse fresh vigour and prosperity into a wide range of other industries which, as suppliers of raw material, are intimately linked up with steel.

This reorganization on national lines which is in progress merits all the support and encouragement which such large-scale readjustment entails.

Close collaboration between the steel industry and the architectural profession is being promoted by the British



Publicity Organization

1. Utilizing (a) in regular flow of articles, letters in press.
2. Routine observation of inimical press matter and provision of counter matter.
3. Expert advice and provision of existing channels of contact with Press and Parliament.

Agency for Advertising

Preparation of:—

1. Printed matter for distribution to (i) Chambers of Commerce. (ii) Local Government Bodies. (iii) Investment Corporations. (iv) Industrialists, etc.
2. Arranging and placing special articles by authorities acceptable to:—
   (i) General Public
   (ii) Speculative Public.

Steelwork Association on lines of national interest which cannot fail to win approval. Already certain definite achievements in national planning are to be recorded; the regulations for steel-frame buildings have been rationalized, and today it is possible to design the composite steel-frame structure for any part of the country to the most modern code of regulations in existence. This national uniformity will, we hope, become an Empire uniformity, and the steel industry looks with confidence towards the architectural profession throughout the Commonwealth for its generous assistance in this direction.

The very extensive research programme which the Department of Scientific and Industrial Research has undertaken for the British Steelwork Association is undoubtedly a measure of planning from which much is expected. Hand in hand with the maintenance of the Steel-building Code at the highest standard of efficiency, investigations are in progress to promote every further economy in design. These results will be incorporated as they accrue into the national regulations by means of a British Standard Specification acceptable by all Government departments and local authorities.

In another field the co-operation between the British Steelwork Association and Imperial Chemical Industries will lead to an examination of building problems from the point of view of harnessing to the solution of structural and acoustic problems the vast developments and potentialities of chemical science.

The British steel and steelwork industries are fully conscious of the fact that only by establishing a really efficient and economic basis for building can that vast amount of reconstruction which is long overdue be speedily brought about.

In every large town and industrial centre vast aggregates of traffic-congested and slum property require immediate demolition and reconstruction. Men, money and materials are to hand, and a national effort to replan by a full utilization of modern resources would bring much work, and with it happiness to the homes of our people.

NATIONAL PLANNING IN THE BUILDING INDUSTRY

[*By H. B. BRYANT*]

SECRETARY
of the
PUBLIC RELATIONS COMMITTEE

THE formation of the Building Industries National Council is the most recent step on the part of the Building Industry, the biggest directly-employing industry of the country, to reach that state of comprehensive unity without which, under modern industrial conditions, it is not possible for any great industry to do justice either to itself—i.e., those dependent upon it—or to the country at large.

The objectives of the Council, as set up by its constitution, are to initiate, supervise and provide a medium for co-operative action and common effort on the part of appropriate bodies and organizations, which is likely to conduce to the advancement and welfare of the Building and Constructional Group of Industries (hereinafter called "the Industry") generally. As a whole the Council would seek to maintain the industry as an efficient unit in the economic structure of the country, capable of providing employment and a means of livelihood for a substantial part of the population. In furtherance of these objects it would be the duty of the Council:—

(*a*) To act as a consultative and advisory body, and to collect, co-ordinate and give expression to views upon subjects, technical and otherwise, which may affect the industry as a whole.

(*b*) To provide and supervise appropriate machinery for the purpose of facilitating joint consultations between representatives of the above-mentioned bodies and organizations.

(*c*) To provide and maintain, when and for so long as required, and to supervise when provided, machinery for carrying into effect any policy adopted for the furtherance of any of the objects of the Council which requires conjoint or co-operative action.

(*d*) To consider matters relating to external factors or movements, which in the opinion of the Council affect, or may tend to affect, the interests of the Industry as a whole.

(*e*) To arrange, as and when the Council considers it desirable, for the collection of statistical and other data and for the collation therefrom, in a common centre, of such statements as may be deemed necessary or advisable for issue as information to the members of the Council or to others.

(*f*) To co-operate, if and when the Council consider it desirable, with any similar bodies in other industrial groups in Great Britain and Northern Ireland, upon subjects within the purview of such bodies and of the Council.

(*g*) To arrange for the collection and administration of funds in order to enable the objects of the Council to be adequately fulfilled.

h) To do all such other things as are incidental or conducive to the attainment of the objects of the Council.

It proposes to achieve these objects under the following conditions :—

(i) That nothing shall be done by the Council in pursuance of its objects which would constitute an interference with any associated body in the conduct or management by that associated body of its own affairs, or which is inconsistent with the retention by each associated body of its complete autonomy and independence of action ;

(ii) That the Council shall have no power of intervention in matters which form or properly would form the subject of direct negotiations between two or more of the associated bodies or which are concerned with the direct relationships between their respective members or which involve or may involve contractual or other obligations as between their respective members or as between their respective members and others ;

(iii) That the Council shall not communicate to any outside body or person any information furnished to it by an associated body except with the consent of the associated body concerned ;

(iv) That the Council shall not engage in any trade or concern in the nature of trade with a view to profit.

The creation of the Council is a true sign of the times. It is the practical application of the truth that no industry can hope to remain wholly efficient or bear its fair share of the moral responsibility involved by its position in the economic machinery of the country unless its efforts are organized and directed with due regard to the general well-being of all concerned.

As in the case of nations, industry is realizing that the maintenance of industrial peace and prosperity lies in mutual co-operation. It is no longer possible for any single industry effectively to function as a self-sufficient unit in disregard of its relation to, and its dependence upon, the other sections of the economic fabric of the country, or in any way to work, or attempt to exist, in what might be called a watertight compartment.

The Building Industry was one of the first to realize the importance of this trend of economic forces towards greater co-ordination and co-operation of industrial effort generally.

It has become more than ever apparent in recent years that the waste due to unfettered and unscientific competition among industries, and groups of industries, must lead to the eventual debasement of all industry, however much such a system may benefit occasionally a few industries at the expense of all the rest.

The present system of individual striving and struggling to snatch the largest possible portion of whatever trade happens momentarily to be available must, and can only be, replaced by an organized effort, having for its aim the intelligent adjustment of means to ends and the proper distribution of productive effort the common object of which must be a consistently increasing volume of trade.

Industry and commerce, as now largely practised, are not unlike those petty industrial wars which we have, fortunately, outgrown, the individual trader, ever trying to obtain a little more than, and at the expense of, another trader, conforming withal to a law not very much higher than that of the jungle.

To expect that such a horde of struggling and disorganized traders will ever achieve any permanent degree of progressive national prosperity is as reasonable as to suppose that it is possible to win wars by allowing the soldiers to spend their time fighting against their own comrades for their share of the rations. National prosperity must be the aim of industry. It is only in the effort to this end that the welfare and prosperity of the individual can be ensured.

The cut-throat competition of crude barter can only result in increasing the load of negative national social services, and in the end lead to further national mental debasement.

No industry is constituted quite like the Building Industry, in that it is made up of a large number of ancillary inter-dependent industries subject to, and to a large extent controlled by, its associated professions.

As a general application its products involve a greater degree of professional services than the products of any other industry. This is one of the many reasons why any drastic curtailment of its activities has such widespread disastrous results.

After the basic food-producing industries, the Building Industry is unquestionably the most fundamental industry of the country. No other industry or private interest can exist without in some form invoking the products and services of the Building Industry. It is because it is such a fundamental industry that its powers and potentialities require to be most scientifically planned and developed. It is to be feared that hitherto the other industries of the country have not realized the extent to which their position of well-being is affected, or can be served by, the Building Industry. It would appear that very few indeed of the manufacturers of the country realize what an enormous advance has taken place in the technique of industrial building construction during the last fifty or sixty years. Dr. Samuel W. Stratton, in drawing up his nine scientific wonders of the world, places fifth " Modern methods of structure, building with both metals and cement." There can be little doubt that by far the greater proportion of British commodities are now produced in factories that are out of date by anything up to fifty years. A tour through such areas as the cotton-manufacturing parts of Lancashire, or the woollen-producing parts of Yorkshire, reveals the extent to which so many of the mills and factories there might be improved by being modernized in the way of approach, lighting, floor area, industrial amenities, etc. A single visit, on the other hand, to some of the more recently erected factories reveals the advantages modern factory construction offers, not only to the factory owner, in the way of minimum overhead costs, but also to the factory operative in the way of industrial environment and amenities generally. All this is indicative of the great advance in constructional technique since the early days of the industrial era.

The " lag " of obsolete industrial buildings is a matter that must sooner or later be tackled by British industry as a whole, if it is to survive the competition from certain Continental countries where industrial re-construction has almost become a religion, and where every modern factory, shipyard or mine, is regarded as a national asset and with national pride.

Apart from purely industrial reconstruction, there is the further great mass of obsolete houses and buildings generally, all calling for reconstruction, the existence of which adds so much to the increasing load of negative social services in the form of health insurance, poor law administration, crime detection, and the protection of the inhabitants generally.

The country must be brought to realize to the full the powers and possibilities of the Building Industry to deal efficiently with such vitally important matters as these, and the great benefits that would accrue to the country if they were so dealt with upon orderly and wisely-planned lines. The solution of most of the country's present difficulties and problems lies in an improved industrialism. No industry is more capable of providing this solution than is the Building Industry. In its own sphere it has attempted to show the way in its efforts to obtain unity in progressive action; exemplified in its National Council.

The task before the Building Industry is mainly twofold—first, to maintain the degree of unity in purpose and function it has achieved to date in the machine of its National Council, and secondly, to educate the investing public, and the industrial leaders of the country, as to the means the Building Industry offers of solving along economic lines so many of their troubles.

In an effort to achieve this latter task the National Council has appointed its "Special Committee for Public Relations."

Upon this Committee rests perhaps the greatest task the Industry could ever have placed upon a single committee. Its duty will be to serve as the vanguard in the campaign of creating an intelligently-planned, increasing sequence of trade for the Industry, instead of the inadequate and sporadic supply now available, not by negative and largely obsolete methods (the effect of which appears to be reducing so many industries to the mental level of an industrial scrum), but by education and keeping the public informed as to the ways and means by which the products of the Industry can add to the individual and public wealth of the country, and how, withal, the social amenities which it can produce will render a national service unequalled by any other form of national expenditure.

It must, further, bring home to the investing public the fact that efficiently organized building enterprise — that is, using the architect for what he actually is, namely, a building adviser —represents the pre-eminent medium of stable investment. All this means public education, and there is no doubt that a great deal more will be heard of the activities of this Committee, if it is sufficiently supported by the Industry, in the New Year.

All these efforts on behalf of the Industry are fundamental and far-reaching. The policy of the effort might be expressed as "planned and organized progress" as opposed to "sporadic and disorganized effort."

The Council has a difficult and complicated task before it, but in the broadest sense its objects and efforts warrant the complete support of the enlightened thought of the Industry.

THE PUBLIC RELATIONS OF THE BUILDING

Howard Robertson, F.R.I.B.A. (*Chairman*)

Lt.-Colonel C. W. D. Rowe

Stanley C. Ramsey, F.R.I.B.A.

R. Coppock is General Secretary of the National Federation of Building Trades Operatives.
H. Halliday is General Secretary of the National Federation of Clay Industries, and Honorary Secretary of the Building Material Manufacturers' and Suppliers' Committee.
I. Ernest Jones is Joint Secretary of the National Federation of Building Trades Employers.
Oswald Healing (Treasurer) is Chairman of the Quantity Surveyors' Committee of the Institute of Chartered Surveyors.
Lt.-Col. C. W. D. Rowe (Co-opted Member) is Deputy Managing Director of the London Brick Co. and Forders, Ltd.
H. B. Bryant (Secretary) is also Secretary of the Building Industries National Council.
Howard Robertson and Stanley C. Ramsey (Co-opted Member) are the well-known architects.

I. Ernest Jones, M.A., B.SC.

H. B. Bryant (*Secretary*)

COMMITTEE
INDUSTRY

R. Coppock

H. Halliday, F.C.I.S.

Oswald Healing, F.S.I., Assoc. Inst.C.E.

PART III: PLAN NOW

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ECONOMIC REORGANIZATION

[By BASIL CLYTHEROE]

> *Proper Planning is a measure of economy. It does not destroy values; it creates them.*
>
> W. R. Davidge, in *The Daily Telegraph*

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WHAT IS ECONOMIC REORGANIZATION?

ARISING out of the discussion of the type of body which ought to come into existence in the various industries to co-ordinate effort and ensure the most rapid and effective utilization of the economic resources of this country, one should consider the direction and the form that economic reconstruction should take. It is always easier to be vague and uncertain about planning, largely because vagueness is a sure method of avoiding controversy and opposition. If, however, instead of vagueness one were to give a concrete example, which may or may not be capable of translation into practice immediately, one could force attention to practical problems which vague discussion has relegated to oblivion in advance.

THE MEANING OF PLANNING

An examination of the voluminous American literature on the question of planning would show that there is no intricate or elaborate theory involved in it other than the general conception that the next phase in scientific development is not the discovery of new inventions calculated to increase production or accelerate manufacture or introduce new services and new facilities, but the application to the administration of industry and control of the economic machine, to the study of the problems inherent in distribution and consumption, of precisely those qualities which have been so productive in research and invention. In other words, the future must depend on our capacity to size up properly the economic position of this country, use all our efforts to strengthen that position, and, in this way, avoid the worst consequences of trade cycles and chaotic duplication of effort and of product.

A PLAN

There is no doubt whatever that if even one important industry had before it a proper conception of what it ought to do, and the machinery it ought to bring into existence to get that something done, it would in a short time find the whole nation behind it and it would be granted sufficient support, both politically and financially, to carry out its proposals.

FOUR POINTS

The experiences of the last few years have taught at least four things :—

I. That the theory of profits being the entire justification of industrial enterprise has been seriously weakened through a better conception of social responsibility. Great public boards are not expected to make colossal profits and they are not seriously criticized if their operations, while conducive to a low cost and highly efficient service, may at certain moments cause temporary losses.

II. Expenditure by local authorities—and by the State, for that matter—on activities which at one time were held to be purely the affair of private enterprise, is, despite the economy campaign, considered necessary to economic progress in this country. A recent examination made by Professor Robson of expenditure by local authorities and the relationship between productive and non-productive activities gives a

The New London Survey reports that the percentage of persons living more than three to a room actually increased between 1921 and 1931.

E. D. Simon, in *The Manchester Guardian*.

complete justification for continued development in this direction.

III. Through the greater intrusion of the State and the local authority into all types of economic enterprise, such as housing, public utilities, transport, roads, agriculture and afforestation, there has been induced into a number of basic industries the necessity to combine together for the purpose of handling very large contracts, so that even the most individualistic industrialists are finding themselves compelled to think in terms of the industry to which they are attached.

IV. The enormous achievement of the past ten years in every range of public life, particularly in the public utilities, housing and commercial and industrial building, has made the public accustomed to think in terms of very large enterprises indeed, so that it is not easy to frighten it with a tale of millions which may at some point or other impinge on taxation. The discussions about war debts and conversion loans have served to render the public more familiar with what at one time would have been considered spectacular and rather dangerous figures.

As the result of those four changes it is true to state that public opinion, where it has had any instruction at all, is in advance of the policy carried out both by the National Government and by the local authorities, and it is prepared to accept even the most spectacular schemes, if such schemes aim ultimately at something productive which has, at the same time, the promise of continuity of effort.

CONTROL

There is a feeling, however, that greater benefit might have resulted from the unco-ordinated activities of the country since the war, if some central guidance had been applied and some control imposed on largely speculative enterprises. Thus, the drift of industry southward to form new masses of labour, which may represent a dangerous problem in the future, might have been arrested, or, at least, forced to conform to some definite policy; expenditure on construction in many directions might have been more wisely applied to even out inequalities as between one area and another, and many unproductive features in commercial and industrial activity been avoided. There is still, for example, the theory that unproductive expenditure is confined to local authorities. But all the local authorities in Britain could not together have lost as much money on unproductive enterprises as those mushroom companies which came into existence in 1928, and as quicky disappeared, entailing an enormous financial loss; as those manufacturing combines which, in defiance of all sound economic doctrine, insisted on installing productive capacity which could never be properly used; as those experiments, not so much in new industries, as in the extension of old industries in new directions without any conception of the market available or the technical and economic factors governing expansion.

WASTE

Investigation into the whole field of national activity, public and private, would probably show that, on the whole, less capital has been wasted in public enterprise than in private. One has only to study the long reports of capital reconstruction in almost every industry of consequence to see how lack of order and planned economy has resulted in waste and in misdirected effort. There is no basis for the theory that the future of this country should be confided entirely to unco-ordinated and highly speculative operations.

NO STATE CONTROL

On the other hand, there is equally no basis for the theory that the State should enter into control of industry and determine the volume and tempo of construction. It should be possible for industry to deal with this work of economic reorganization on the widest possible scale, provided that some fundamental economic research is carried out, that a sound policy of development, spreading over a number of years is rigidly adhered to, and that co-operation should be something more than an agreement to hold up prices.

ECONOMIC SURVEYS

The country is still largely ignorant of its economic configuration, and so importance must be placed on proper economic surveys. A first approach towards this type of research was made by the Universities when they investigated conditions in the South-West of Scotland, North-East of England, Lancashire, the Mersey Estuary and South Wales, but those surveys suffered from two fundamental defects. They were not carried out on a uniform basis, so that they could not be compared with one another, and their scope was limited merely to deciding the amount of surplus labour in those areas without any sure indication of what ought to be done to give employment to such labour.

Largely under the auspices of the Institute of Sociology and the Ministry of Health, a number of regional surveys have been carried out in England, and in all about fifty reports have been issued, relating principally to Lancashire, Yorkshire, Surrey, Sussex, Middlesex, Cheshire, Greater London, the Lake District, Devon and Cornwall, Essex, Northampton, Hertfordshire, Buckinghamshire, Berkshire. Those surveys are based on fairly careful field work, and they supply a certain amount of additional material which might be used for the elaboration of wider studies, fitting in ultimately to a national framework. The defect of all, however, is that there is no real economic background given to them, and no policy of constructive activity suggested, other than the obvious one of arranging building construction, domestic, commercial and industrial, in such a way that essential amenities are preserved and some value given to social considerations.

THE LONG-TERM PLAN

The type of planning which is now required is something much bigger, something which will use the economic information contained in the University surveys, the local information given in the regional surveys, and bring them forward into the creation of a constructive long-term plan, capable of making use of the real economic resources of the country and affording some stability and some equalization of the various areas forming the national economic unit.

AN EXAMPLE

I promised, at the outset of my argument, to give a concrete example forcing attention to the practical problems of economic rehabilitation. If one were to take Scotland for that example, one should be able to designate, with some approach to accuracy, three lines of expansion and reconstruction :—

SCOTLAND

I. *Immediate measures*

The first steps would concern almost entirely housing construction, the elimination of slums through a scientifically designed series of new town planning projects, which would be not an improvement on the site of existing dwellings but the construction of totally new centres of population to draw away insufficiently housed population in older centres and allow the laws of supply and demand to effect their own remedy.

If one were to take the example of Glasgow where, according to the census of 1931, there were more than 148,000 dwellings of two rooms or less containing half the population, one could visualize an ambitious plan which would have sufficient economic justification to permit of its introduction and conclusion. The remedy for the housing situation in a centre like Glasgow is really the building of a new town, where everything would be carried out on mass lines, with the maximum degree of standardization ; central purchasing of all essential materials, uniform specifications covering methods of construction, not only of building but also transport, road making, public utilities ; the adoption of the most modern design, which would permit of the reduction of unnecessary expense on decoration and yet give an effect æsthetically satisfactory.

I am quite certain that if any authority were to project a town of this size, complete in every detail, to be constructed on the most economic lines, it would find itself capable of quoting rents for flats of three rooms with modern conveniences sufficiently low to compete with rents already paid in the two-roomed and single-roomed dwellings in Glasgow and obtain a reasonable return on the capital invested. Such a proposition has never yet been worked out in any detail, but if municipalities like Amsterdam, Frankfurt and Vienna have been able to embark on projects almost as ambitious as these, with complete success, the ability of a large municipality such as Glasgow to do so should not really be questioned. This is given merely as an example of a type of construction which might be contemplated.

II. *Plans which would be rather less immediate and yet would be necessary*

The Ministry of Reconstruction at the end of the war received from County Councils and other local authorities,

AMSTERDAM

Amsterdam furnishes an example of planned housing construction, intelligently and beautifully achieved,

where economic building can enlist to advantage the plastic arts. Statistics of the enterprise are quoted below.

TABLE I.
Capacity of Houses Newly Built at Amsterdam During Years 1925–30.

Year	Number of dwellings in houses with					Low labourers' dwellings		Total number of dwellings
	One dwelling	Two dwellings	Three dwellings	Four dwellings	Five and more dwellings	One-family house	Houses with two stories	
1925	33	118	528	3,820	1,384	168	1,145	7,196
1926	83	142	189	4,740	821	389	663	7,027
1927	40	290	195	3,664	236	579	172	5,176
1928	76	248	792	2,024	158	183	28	3,509
1929	141	230	1,698	2,148	620	378	26	5,241
1930	225	254	1,938	2,380	737	414	233	5,811

TABLE II.
Former and Present Manner of Building at Amsterdam

Kind of Dwellings	Existing in October, 1925	Built in 1906–1923			Newly built in 1924–1930 by private parties, associations and the municipality	Total 1906–1930
		By Private Parties	By Associations (since 1909)	By the Municipality		
One-family houses	12,708	303	82	2,386	3,150	5,921
Dwellings with more than one story and separate entrance from the street :						
Above	6,999	440	1,048	780	1,005	3,273
Below	11,964	1,549	1,234	784	3,793	7,360
Underground dwellings ..	1,223	—	—	—	—	—
Flats :						
Ground floor	31,851	6,422	2,423	179	9,978	19,002
1 story	38,120	5,745	2,512	207	9,954	18,418
2 stories	38,875	5,533	3,521	207	9,403	17,664
3 ,, ...	30,091	5,305	1,973	167	8,294	15,739
4 ,, ...	996	12	—	—	19	31
5 ,, ...	3	—	—	—	1	1
Total	172,830	25,309	11,793	4,710	45,597	87,409

TABLE III.
Expenditure by Municipalities and Building Societies

Year.	Number of Dwellings.	Average Cost per Building.	Average Rental.	Total Cost.
	New Dwellings.			
1930 (end of) ..	26,000	£450 (less than) ..	4·5 guldens, inc. tax (about 7s. 6d.)	153,000,000 gulden (about £12,500,000 at par).
		£270	3 gulden (5s.) (dwellings with one bedroom).	
	Total Number of All Dwellings.			
1931 (beginning of)	199,492		2½ to 5 gulden (4s. 2d. to 6s. 8d.) per week (rent of 30,300 of total number recorded).	

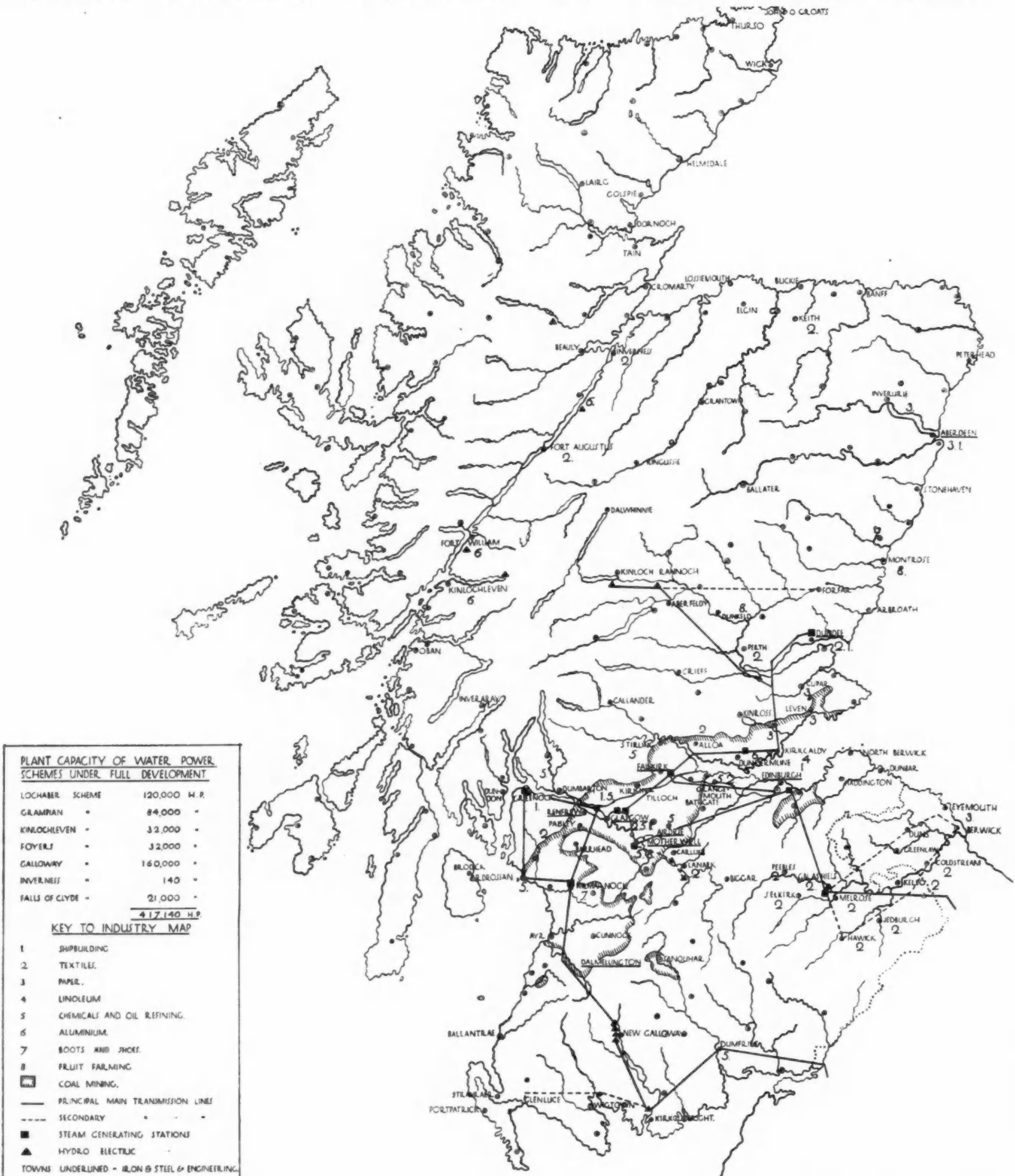
TABLE IV.
Reduction of Slums

Year.	Slums let at 2½ gulden (4s. 2d.).	Annual Reduction (from 1930 onwards).
1925 (beginning of)	17,004	
1930 (end of)	4,611	
Decrease (1925–30), 12,493.		About 1,000

TABLE V.
Maximum Building.

Year.	Houses let at 208–350 gulden a year (£17–£29) Houses let at 350–700 gulden a year (£29–£59)	Total Number of Houses recorded
1925 (beginning)	.. ..	94,276
1931 ,,	.. ..	145,261
Increase	.. ..	50,985

SCOTLAND • A SURVEY OF THE INDUSTRIAL


PLANT CAPACITY OF WATER POWER SCHEMES UNDER FULL DEVELOPMENT
LOCHABER SCHEME 120,000 H.P.
GRAMPIAN " 84,000 "
KINLOCHLEVEN " 32,000 "
FOYERS " 32,000 "
GALLOWAY " 160,000 "
INVERNESS " 140 "
FALLS OF CLYDE " 21,000 "
417,140 H.P.
KEY TO INDUSTRY MAP
1 SHIPBUILDING
2 TEXTILES.
3 PAPER.
4 LINOLEUM
5 CHEMICALS AND OIL REFINING.
6 ALUMINIUM.
7 BOOTS AND SHOES.
8 FRUIT FARMING
COAL MINING.
PRINCIPAL MAIN TRANSMISSION LINES
SECONDARY " " "
STEAM GENERATING STATIONS
HYDRO ELECTRIC "
TOWNS UNDERLINED - IRON & STEEL & ENGINEERING.
JOHN O GROATS
THURSO
WICK
HELMSDALE
LAIRG
GOLSPIE
DORNOCH
TAIN
CROMARTY
LOSSIEMOUTH
BUCKIE
BANFF
ELGIN
KEITH
PETERHEAD
BEAULY
INVERNESS
GRANTOWN
INVERURIE
ABERDEEN
FORT AUGUSTUS
KINGUSSIE
BALLATER
STONEHAVEN
DALWHINNIE
FORT WILLIAM
MONTROSE
KINLOCH RANNOCH
FORFAR
KINLOCHLEVEN
ABERFELDY
DUNKELD
ARBROATH
DUNDEE
OBAN
PERTH
CRIEFF
CUPAR
INVERARAY
CALLANDER
KINROSS
LEVEN
STIRLING
ALLOA
KIRKCALDY
NORTH BERWICK
DUNFERMLINE
DUNBAR
FALKIRK
EDINBURGH
HADDINGTON
DUNOON
GREENOCK
DUMBARTON
KIRKINTILLOCH
GRANGEMOUTH
BATHGATE
EYEMOUTH
RENFREW
GLASGOW
PAISLEY
AIRDRIE
BERWICK
BARRHEAD
MOTHERWELL
DUNS
CARLUKE
GREENLAW
ARDROSSAN
LANARK
COLDSTREAM
KILMARNOCK
BIGGAR
PEEBLES
GALASHIELS
KELSO
SELKIRK
MELROSE
JEDBURGH
AYR
CUMNOCK
HAWICK
DALMELLINGTON
SANQUHAR
BALLANTRAE
NEW GALLOWAY
DUMFRIES
STRANRAER
PORTPATRICK
GLENLUCE
WIGTOWN
KIRKCUDBRIGHT

These two maps of Scotland constitute a first attempt to survey as a whole the industrial position and possibilities of Scotland.

The second map is based very largely on a study of the various reports issued by the Ministry of Reconstruction and the proposals put forward for the development of their areas by various county councils in Scotland. It presupposes the adoption of a policy of extensive afforestation in the Highlands, the construction of a canal across Scotland, linking up Grangemouth and Renfrew, the widening of the Crinan Canal and the extension of the capacity of the Caledonian Canal to take traffic running between the Irish Channel and the North Sea and the new industrial centres which would come into existence with proper agricultural and sylvicultural development.

The first map gives a clue to the power equipment of Scotland and the part played by the Grid in linking up steam-power stations and water-power plants in the Highlands and in South Scotland. Industrial development has not accompanied intensive water-power development, particularly in South Scotland, and the fullest use has not been made even of existing water-power plants in the Highlands for the purpose of opening up areas within an economic distribution range.

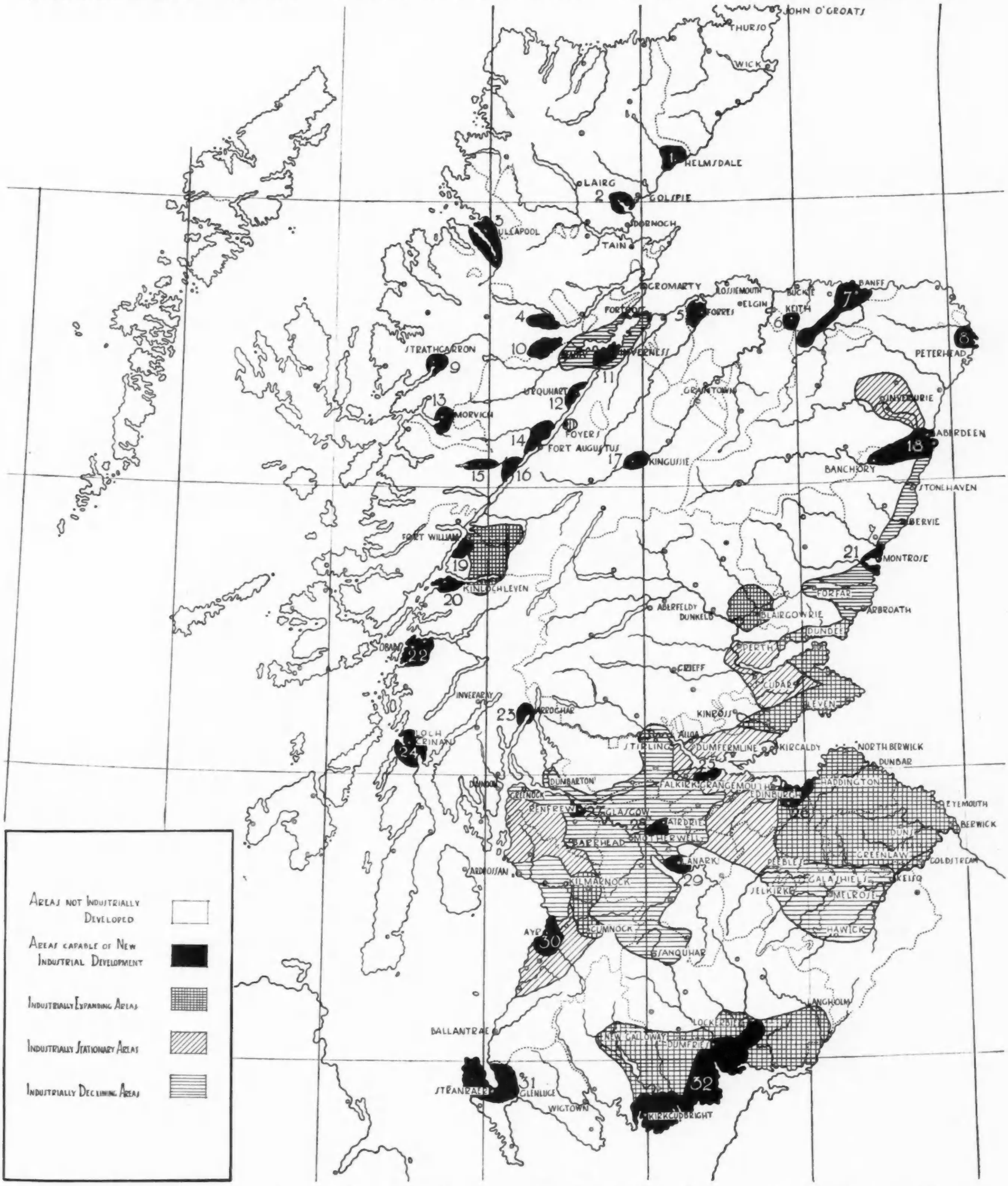
The basis of any economic survey in Scotland is to be found in the transfer of population out of the depressed and declining areas shown in the second map into the Highlands and into Southern Scotland. The power equipment of the country is moving in that direction, so that any plan has already the fundamentals laid down. A closer survey of potentialities, particularly in the Highlands, might call for readjustment of the new areas capable of industrial development, but the purpose of the maps is really to concentrate attention on :

I. The existing resources which are not being properly utilized.

II. The change that has taken place in existing industrialized areas.

III. The areas where any planning policy would be most active.

POSITION AND POSSIBILITIES FOR DEVELOPMENT


JOHN O'GROATS
THURSO
WICK
HELMSDALE
LAIRG
GOLSPIE
DORNOCH
TAIN
ULLAPOOL
CROMARTY
LOSSIEMOUTH
ELGIN
BUCKIE
BANFF
KEITH
FORRES
FORTROSE
INVERNESS
PETERHEAD
STRATHCARRON
URQUHART
GRANTOWN
INVERURIE
MORVICH
FOYERS
FORT AUGUSTUS
ABERDEEN
KINGUSSIE
BANCHORY
STONEHAVEN
BERVIE
FORT WILLIAM
KINLOCHLEVEN
MONTROSE
FORFAR
ARBROATH
ABERFELDY
DUNKELD
BLAIRGOWRIE
DUNDEE
PERTH
OBAN
CRIEFF
CUPAR
INVERARAY
ARROCHAR
KINROSS
LEVEN
LOCH CRINAN
ALLOA
STIRLING
DUNFERMLINE
KIRCALDY
NORTH BERWICK
DUNBAR
DUNOON
DUNBARTON
FALKIRK
GRANGEMOUTH
EDINBURGH
HADDINGTON
GREENOCK
RENFREW
GLASGOW
AIRDRIE
EYEMOUTH
BERWICK
BARRHEAD
MOTHERWELL
DUNS
LANARK
PEEBLES
GREENLAW
COLDSTREAM
ARDROSSAN
KILMARNOCK
GALASHIELS
SELKIRK
MELROSE
KELSO
HAWICK
AYR
CUMNOCK
SANQUHAR
LANGHOLM
BALLANTRAE
LOCKERBIE
NEW GALLOWAY
DUMFRIES
STRANRAER
GLENLUCE
WIGTOWN
KIRKCUDBRIGHT
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 28 29 30 31 32
AREAS NOT INDUSTRIALLY DEVELOPED
AREAS CAPABLE OF NEW INDUSTRIAL DEVELOPMENT
INDUSTRIALLY EXPANDING AREAS
INDUSTRIALLY STATIONARY AREAS
INDUSTRIALLY DECLINING AREAS

The numbers shown on the above map in the areas capable of new industrial development refer to industrial possibilities, which are enumerated as follows :—

Nos. 1, 2, 4, 10, 11, 13, 14, 15, 16, 22, 23	*Hydro-electric plants harnessing local water-power resources.*
Nos. 3, 9, 11, 13, 22	*Electro-chemical or electro-metallurgical plants attached to water-power schemes.*
Nos. 5, 11, 12, 14, 15, 16, 17	*Paper, pulp and wood-working enterprises, linked up with afforestation projects.*
Nos. 5, 6, 7	*Paper and textiles.*
No. 8	*Fish canning and curing industries.*
No. 18	*Fish canning and curing, and paper-milling, textiles and wood-working industries, linked up with the afforestation of Deeside and the South-East Grampians.*
No. 21	*Heavy paper, light engineering and fruit canning industries.*
Nos. 19 and 20	*Miscellaneous industries based on increased development of aluminium and electro-chemical and electro-metallurgical industries.*
No. 24	*Widening of the Crinan Canal and development of marine transport services.*
No. 25	*Terminal of Forth and Clyde Canal : iron and steel and heavy engineering.*
No. 27	*Iron and steel, cement, clothing manufacture.*
No. 28	*Electrical apparatus, light castings, textiles, clothing.*
No. 29	*Textiles, clothing, fruit preserving and canning.*
No. 30	*Paper-making, electrical supplies, seaport extensions.*
No. 31	*Seaport facilities, linking up with intensively developed agricultural hinterland.*
No. 32	*Miscellaneous industries, co-operative dairies, bacon factories, textile mills, linked up with the Galloway water-power schemes.*

WHERE INDUSTRY IS DYING FOR WANT OF RECONSTRUCTION

The only blast furnace operating in Scotland.

Derelict ironworks in the Coatbridge district of Scotland.

Abandoned machinery rotting beside a stagnant Scottish canal.

particularly in Scotland, suggestions for public works which would improve the economic status of their area. Now those suggestions, with very few exceptions, have not been put into operation, and they constitute a body of opinion much of which is still valuable. In this class should be considered the provision of new roads to open up less developed parts of the country, the intensive development of public utilities, transport facilities, water-power schemes and activities of a type calculated to supply the machinery necessary for the prosecution of short-term plans, and the raw materials, semi-manufactured products and services necessary to render possible any work of reconstruction.

With this should be considered the encouragement of new industries and the extension of old industries which have not been able to maintain a sound competitive position. The economic survey by the University of Glasgow did indicate many possibilities of extension and reconstruction of old industries which are proving more and more inadequate to the economic needs of the country, and to that one can add industrial works necessary to meet the requirements of the country in commodities and products which at the present time are not being satisfied in the most economic fashion.

III. *Long-Term Planning*

Such long-term planning would aim at complete reorganization of the agricultural activity of the country, and be bound up, in Scotland, with the expansion of the economic resources of the Highlands—resources represented predominantly by the possibilities of afforestation combined with stock-rearing on a more intensive scale than at the present time.

It has been estimated, for example, that over five-and-a-half million acres of land in Scotland can be devoted to afforestation, compared with the acreage under forest at the present time —probably less than 700,000.

Combined with such afforestation would be the development of industries in the Highlands, such as the wood-pulp and printing industries, capable of using the raw materials on the site —but they obviously cannot come into existence until the forests are mature, so that this group of industries depends on the long-term planning of afforestation.

A NATIONAL PLANNING BODY

I have given one or two instances of the type of activity which falls into the three categories defined merely to give some direction to opinion and material for criticism. If the national planning body were in existence it would be able to draw up a map of Scotland indicating where activities entering into those three categories should be located and when they should be initiated.

The whole of Great Britain ought to be examined by such a body, in closest detail, using all material at the disposal of the State departments and local authorities, with a view to deciding what should be the balance of activity, as between one area and another, what resources exploited, what industries encouraged and what public utilities and services developed to make the work of economic reconstruction possible.

Every basic industry is vitally interested in such planning—particularly coal-mining, iron and steel, chemicals, wood-working, and even textiles, but most of all the Building Industry, since new enterprise must call on building in one or all of its phases.

It might be suggested that such work should be carried out by the Government itself, should be left entirely to the Government, but this view is rather short-sighted, since the Government has enough preoccupations to keep it adequately employed.

Unless one sane and vigorous organization makes a proper survey and insists on its recommendations being carried out no action may be taken for years.

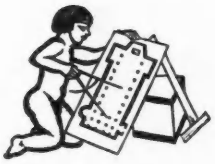
THE BUILDING INDUSTRY

At the end of the war the Ministry of Reconstruction might have been that type of organization, but now the matter devolves more and more on the industries concerned, above all on the Building Industry in co-operation with the architectural profession.

If the Building Industry were to create a Development Board, whose function was to carry out a survey of new types and new forms in economic reconstruction, and insist that the recommendations resulting from such a survey should be put into operation, it would accomplish more in a few years than any amount of sporadic building or adverse criticism of economy campaigns.

The country requires at the present time a constructive lead. It is sick of obstruction and adverse criticism, and any industry which can make a proper use of this sentiment will reap an enormous advantage and at the same time assist in the economic development of the country.

ARGUMENT



¶ *National policies have been made to aim at a balanced budget. Rigorous deflation has been practised; national security is preached through reducing wages and construction. Strong counter-measures are necessary to reverse these negative policies. True economy is wise spending at the right time.* Now *is the time to build.*

Building is a good investment: credit and materials are plentiful and cheap; building costs are lower than they have been at any time since the war or are likely to be in the future.

Building relieves taxation: over two million workers are directly affected by the Industry and a further two million indirectly. Eighty per cent. of the total cost of its products is disbursed in weekly wages, causing a constant circulation of purchasing power. The Industry obtains practically all its raw materials in the country.

Building is a necessity of progressive manufacture: England has acres of obsolete factories, streets of out-of-date offices, miles of slums, and at least 1,200 schools unfit for children. All these must be reconstructed.

Cheap money, labour and materials are available; yet investors hesitate.

The Public Relations Committee of the Building Industries National Council have made clear the position of the Industry in relation to national prosperity, its power to render efficient service in national industrial rehabilitation.

Architects must play their part by rationalizing their own activities.

¶ *National prosperity must be the aim of every industry. It is only combined effort that can assure individual welfare and prosperity.*

The new National Council of the Building Industry seeks to maintain the Industry as an efficient unit in the economic structure of the country. Its offspring, the Public Relations Committee, has been formed to act as a consultative and advisory body, to collect, co-ordinate and give expression to views affecting the Industry as a whole, to consider matters relating to external factors, to collect statistics and data, and to co-operate, when desirable, with similar bodies in other industrial groups.

The policy of the National Council is planned and organized progress. Coal, steel, electricity, agriculture, transport and other industries are rationalizing themselves. The time is rapidly approaching when co-ordination in and between all industries will be accomplished. Cut-throat competition can only result in increasing the unproductive load of national social services. National prosperity through efficiency is the aim of the Building Industry.

There is no basis for the theory that the future of the country should be confided entirely to unco-ordinated and highly speculative operations.

Economic reorganization must be on the widest scale, and a sound policy of development, spreading over a number of years, must be rigidly adhered to.

It is not enough that the Building Industry should organize itself. A plan for the Building Industry involves a plan for the whole country. Our future depends on our capacity to size up the nation's economic capacity.

The whole of Great Britain ought to be examined in the closest detail by a National Planning Body with a view to deciding what should be the balance of activity as between one area and another, what resources exploited, what industries encouraged and what public utilities and services developed.

There must be National Reconstruction through the combined efforts of every industry, led by the Building Industry, of which the architectural profession is the brain.

PART IV: HOW TO PLAN

●

A CONCRETE SUGGESTION
FOR A
NATIONAL PLANNING BOARD

[By C. B. PURDOM]

●

> Neither in politics nor in economics have any of the political parties grasped that the first and urgent necessity is planning ahead. The great fund of individual and corporate goodwill goes to waste, and all our wills are frustrated for want of a large-scale plan of national reorganization. Particular projects, often of great potential value, are put forward without any effort being made to relate them to each other or to a national plan, and they either break down or function imperfectly through needless friction engendered by absence of ordered planning.
>
> *From* PLANNED MONEY, *by Sir Basil P. Blackett, Director of the Bank of England.*

At first glance, the facts with regard to town planning should give all who talk about national planning to pause. Town-planning powers have existed in this country since 1909, and since 1919 their exercise has been compulsory. During that period, more than a thousand town-planning schemes have been prepared for over seven-and-a-half million acres. In the last few years, "regional" planning has become fashionable, and reports and plans have been published for many more million acres. I do not know the exact number. Are we, as the result of all this work on paper, getting better towns, are we getting order and form into the building of cities? We know that we are not. In fact, during the past 13 years, which has been one of the greatest periods of domestic building in our history, when towns have made big extensions and vast sums of public and private money have been spent upon them, there has been more spoliation of the countryside than ever before and more bitter controversy over the destruction of natural beauty by uncontrolled urban building than at any time in history.

THEY DON'T WANT IT

What is the explanation? It is not for lack of experts devoted to the art that town-planning has meant so little; for the number of professional town-planners can be counted in hundreds. It is not for lack of propaganda; for enthusiasts have been preaching the advantages of town-planning for not far short of 30 years. Why is it? The answer surely must be that apart from the enthusiasts, nobody has wanted town-planning. By "nobody" I mean no one actually concerned with building and land-ownership. Neither architects, engineers, surveyors, builders, land agents nor financiers have really thought there was money in town-planning for the interests they represent.

Yet, if there is any meaning in "planning" at all, town-planning is the most important aspect of it. What is the use of planning an electricity supply, transport, industry, finance, and any other service or activity, if the distribution of population is not planned with them? These things do not exist for themselves, but to supply people with what they need, and if the distribution of people is left to chance, how will it be possible to take advantage of the planning of the things they need to use? Is it sensible to plan part of the structure of the national economic life, giving no thought to the placing of the human element that is to make that structure and to give it reality? That is exactly what is happening now. The best brains of the country are devoting themselves to the scientific treatment of industry, transport and power, but nothing whatever is being done to examine scientifically the distribution of human beings in town and country, so that the nation may function as an economically sound whole.

LOCAL *v.* NATIONAL

The reason for this may, perhaps, be found partly in the fact that town-planning is in the hands of municipal authorities, which are not at all directly concerned with industry and only partially with transport or power, and partly also in the fact that there never has existed in modern times any science of town building. Municipal authorities look after their own local affairs—that is all they are required to do—while the distribution of population is a national concern. And even for dealing with their own problems of town extensions, town improvement and slum clearance, municipal authorities have no guidance as to the social or economic principles on which they should act. Everything in town building is experimental and uncertain. Everywhere the line of least resistance is followed. Public subsidies and private speculation work independently with no aim but the immediate satisfaction of pressing needs or personal profit. Town-planning exists on paper, but is so formless, and so devoid of scientific basis, that it is of comparatively little help in controlling or guiding either public or private builders. What the ordinary man knows about town-planning is that it means twelve houses to the acre. The result is that towns continue to sprawl out in a disorderly manner as best they can; and ugliness is rampant.

TOWN PLANNING

The truth is that we need a National Scheme of Town-Planning. The time has gone when town-extension can be looked upon as a purely local affair. Transport has made the country one. Electricity supply and industrial reorganization require a national point of view. Individual cities, even groups of cities, do not get a wide enough survey of economic or social factors to be able to plan for their future with any confidence. That is realized—perhaps subconsciously!—even by those responsible for the planning of the London region, with the result that after five years' work, nothing has been

> The very notion of planning is obnoxious to most minds, and meets with instinctive hostility from those who have been brought up in British traditions of freedom. . . . Any planning of national reconstruction in this country must do full justice to the sound common sense of this traditional British scepticism. It must be dynamic planning, not a cut and dried programme devised for a static world ; but planning there must be.
>
> *From* PLANNED MONEY, *by Sir Basil P. Blackett.*

done and a future is looked forward to in which nothing shall be allowed to be done. Neither London nor Manchester nor any other region can plan for itself, only a national authority can do it for the country as a whole.

Is it realized, for instance, that in the local town-planning schemes in the region of London over forty square miles have been set aside for industrial areas, sufficient to double the population of London ? Who wants that ? Would it benefit the nation ? Yet only a national plan could provide an alternative.

A CENTRAL PLANNING BOARD

What we must have to give reality to town-planning is a central planning authority that will think for the nation. We need an organism with a thinking brain, so that the main lines of the physical development of the country can be marked out. Until this is done, town plans will remain on paper, town-planning legislation will continue to be abortive, uneconomic building will be done by local authorities and private persons, traffic congestion and waste will increase, no national transport system will be workable, and the best use will not be made of the national electricity supply.

The formation of such a Central Town and Country Planning Board is practicable. The men could easily be found for it, and it could get to work at least as quickly as did the Central Electricity Board. Its functions should be to plan in outline the distribution of population, based on economic surveys, and in co-ordination with electricity and transport and arterial road construction. It should not be an advisory body, but an executive authority, supervising town-planning throughout the country. The town-planning schemes of local authorities should be subject to it. All planning schemes beyond a certain size should come directly into its hands. Building schemes on new areas by local authorities or private persons should be made subject to the plans of the Central Board.

FINANCING PLANNING

The Board should have power to raise money to finance planning and building schemes required by its plan of economic development. What is wanted is construction—plans made into bricks and mortar—but in the right places and in accordance with a master design. One of the arguments that used to be urged in favour of town-planning schemes was that they did not mean building. No indeed ! And fortunately so ; for had building been artificially encouraged on the seven-and-a-half million acres already included in town-planning schemes, in what a mess we should be ! But the Central Planning Board must have building powers. I see no sense in setting up an organization that will merely offer advice and print beautiful reports : we need something done. That needs courage, of course, but courage is called for today to bring the nation out of inertia and despondency.

The practical work of a Central Planning Board would include schemes for semi-derelict industrial areas such as exist in South Wales and the North of England, and for stemming the flow of population to London and the South of England by providing a structure for fresh industrial development elsewhere, while to the extent that new population in the South is desirable, provision could be made for it. By this means the burdens on local authorities would be relieved and unregulated building in the South would be effectively checked.

This means a certain amount of Government interference with industry and the movement of population. But interference of one sort or another is inevitable. Is it not better that it should be planned ? And it is too late now to object to Governmental action in private affairs.

WHO WILL ORGANIZE IT?

The Central Planning Board should not be a Government department or associated with a Government department. It should be a public authority set up in a similar way to that in which the Central Electricity Board was established, responsible for discharging a public function, but free from political interference.

Who will provide the driving power required to get this Central Town and Country Planning Board set up ? It could be found by the building and allied industries. It is no use to wait for a popular movement in its favour. That will never come. Besides, it is necessary to get this work of planning out of the hands of social reformers and politicians, and into the hands of practical men. Town-planning has been far too long an academic subject. It should now be seen to be sound business. The Building Industry can find the practical men required. Why not attempt it ?

The Industry has everything to gain. It will mean the employment of its resources on a scale not hitherto dreamed of. The existing towns and cities are largely out of date, inconvenient, uneconomical and in need of drastic rebuilding. There can be no doubt that such rebuilding would pay handsomely. What a task for the building trades ! But that task will be attempted only when the pressure of population has been relieved, which will be brought about only when a central authority becomes responsible for planning for it.

THE CHANCE FOR THE BUILDING TRADES

Organized town-building, to meet the needs of the times and to provide for future industrial development, is what is required. Industrial plants are being rationalized, whole industries are being reorganized, and re-planning and reorganization will have to be achieved throughout the national life. It is urgently required in our towns and cities. It must be provided for new areas. It can be done only by a Central Authority that has behind it the power of an industry capable of carrying out what the Authority has to do. This is the great chance for the building trades now so heavily hit by the depression and with no other opportunity for immediate revival.

I admit that the proposal made here is seemingly impossible to carry out ; but that impossibility would vanish before the determined effort of a few men who knew what they wanted. Masters and operatives should work together in this ; let them learn from the recent prosperity of the electrical industries how they may bring prosperity to themselves.

TO SUM UP—

THE CASE FOR PROSECUTION

[By the EDITOR]

◆

I suggest, therefore, that the first step towards the " rationalization " of planning should be to set up a Joint Committee, representative of these three groups (Town Planning, Industry and Transport). Such a Committee could, and should, form the nucleus of a larger body representative of all the interests concerned and for whom an appropriate designation would be the " National Planning Board." It would be the duty of the Board to collect and examine all available data, to investigate exhaustively the problems that have to be solved, and finally, to formulate a national planning policy that can be adapted to local needs.

F. LONGSTRETH THOMPSON,
President of the Town Planning Institute.

A NATIONAL SURVEY ESSENTIAL

THERE are in existence four Regional plans which include in their survey the ancient city of Chester. These four regional plans have been prepared by four different regional bodies, and these four different regional bodies have seen no reason to compound with their birthright as liberty-loving Englishmen, by entering into any form of co-operation.

This is only an instance of what has been emphasized elsewhere in this issue—that unco-ordinated regional planning defeats its own object. Regional planning without a co-ordinating national survey is like a house without a staircase; and when individual industries and groups of industries reorganize and combine as they are in process of doing today, one of the first things they ask for *is* the staircase. Not unnaturally they want a national survey, both of their own resources and of the nation's requirements; a comprehensive national survey which will give them some conception of the inter-regional balance of activities.

THE BUILDING PLAN

Further, the fact that a National Planning Scheme for the distribution of *power* has now been practically completed, not only furnishes a precedent which the Builders and Transport industries might follow, but itself involves planning on a national scale. For power will now be available for industrial and agricultural development throughout the length and breadth of the land. Can it be seriously main-

RESULTS
of
UNPLANNING

Why can't we abolish poverty? The answer is, because we are too wealthy. Why is it necessary for anybody to go cold? The answer is because we have too much coal and too much fuel oil. Why must anybody go with shabby clothing? In the observation car the other day I was reading the fashion notes. (You would be astonished to learn what a man reads in an observation car.) I read that men will wear grey a great deal this spring. The man beside me said, " They certainly will, if they wore it last spring." Why shouldn't we all have new clothes? The answer is because we have too much wool, too much cotton, too many woollen mills, too many cotton mills, too many mill hands and too many tailors. Why must anybody go hungry? Well, I have just been from Aroostook County, in Maine, where everybody was groaning because they had produced too many potatoes, to Southern California, where everybody was groaning because they had produced too many eggs. Why do we have to live in shabby houses? That, of course, is because we have too much steel, too much lumber, too much cement, too many architects, too many carpenters, and too many plumbers.

But if we have too much of one thing in one place and not enough in another, why don't we transport the surplus from where the people do not want it to where they do want it? The answer to that question is the easiest of all. That is because we have too many railroads, too many ships, and too many trucks.

— WILLIAM TRUFANT FOSTER,
FROM THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE.

tained that the utilization or exploitation of this power should be left to the control of purely local, or even regional interests ?

We find, therefore, that the industrialists and professional town planners are *thinking* the same way—towards a national plan. Mr. William Randolph, Mr. Basil Clytheroe and Mr. C. B. Purdom, in the preceding article, make a strong plea for a National Planning Board with executive power. It is suggested that just as the electrical industry has got out a National Power plan, and not only got it out but turned it on, so the Building Industry must get out a National Building plan. When one investigates a National Building plan, however, one discovers that it involves a sort of all-in policy, social, economic, industrial. We are thus led to conclude that to fulfil its function and to exploit its resources fully, the Building Industry will eventually be forced to produce a plan of campaign on a scale which no English body, private or public, has yet attempted.

Well, why not ? It sounds a big thing. Mr. Purdom's National Planning Board with executive powers may strike horror into some not-too-firmly-beating hearts, the sort of shaking - hands - with - murder horror which accompanies the mention of the Five-Year Plan. Though, as a matter of fact, there is no reason why we should allow a conservative idea like national planning to be monopolized by the red flag. It sounds a big thing, but the Building Industry is a big thing, too, the biggest thing in the country. Besides, there are a hundred different bodies, societies and interests behind the movement which would back the Building Industry up. The Central Electricity Board, for instance, has already carried out a general survey of Scotland, and is preparing to tackle England during the next three years. Co-operation here would be fruitful. However, to allay suspicion, let us drop the " national," the " executive " and the capital letters and see if a planning board such as Mr. Purdom proposes could be made a practical proposition.

FORMATION OF THE BOARD

The first step would be for the National Council of the Building Industry, or for the Public Relations Committee to *form* the board, which would be composed of members from the building and allied industries, the transport industry, the chief regional planning bodies in the country and the Town Planning Institute, whose president recently made a proposal for some such scheme, which he described

• FACTS AND FIGURES •

The table below sets out the numbers of workpeople insured in the Industries of Building, Public Works Contracting and Constructional Engineering. The figures are taken from the *Ministry of Labour Gazette*, August, 1932, as at the last computation, July, 1931. They cover Great Britain and Northern Ireland.

	Males.	Females.	Total.
Building	848,250	9,920	858,170
Public Works Contracting ..	269,330	1,300	270,630
Constructional Engineering ..	28,310	1,270	29,580
	1,145,890	12,490	1,158,380

For purposes of comparison the following figures are given to indicate the corresponding numbers insured in the other chief and prominent industries (also at July, 1931).

" Distributive Trades " .. .. (of which 1,136,530 are males)	1,874,780
Coal Mining .. .. (of which 1,041,120 are males)	1,046,870
General Engineering .. .. (of which 528,910 are males)	576,380
Cotton Textiles	550,110
Motor Vehicles, Cycles and Aircraft	251,320
Woollen and Worsted	238,870
Shipbuilding and Repairing	195,390
Steel Melting and Iron Puddling, Iron and Steel Rolling and Forging	169,350
Boots, Shoes, Slippers and Clogs	137,840
Chemicals	98,940
Linen	78,210
Silk Manufacture and Artificial Silk Weaving	45,020

Agriculture is not an insured Industry, but the latest figures published are in the *Annual Agricultural Statistics* of the Ministry of Agriculture and of the Department of Agriculture for Scotland (see page 32 of the *Twentieth Abstract of Labour Statistics*, Cmd. 3831, of March, 1931). They cover Great Britain only—not Northern Ireland.

The figures are :—

GREAT BRITAIN.

	Males.	Females.
Regular Workers	645,014	83,926
Casuals	89,466	38,808
	734.480	122,734
Total Agricultural Workers		857,214

Subsidiary Industries directly and almost entirely dependent upon building and public works employ 407,170. This figure should be added to the number of those for whose employment the industrial group mentioned in the above table is responsible—giving a total of 1,158,380, plus 407,170, or 1,565,550. Other industries affected directly or indirectly by activity in building and public works employ 889,180. Thus, at a conservative estimate, the employment or otherwise of at least 2,000,000 workers is determined by the degree of activity in the Building and Public Works Group of Industries. This takes no account of the large number of professional workers engaged in the Industry.

In a first analysis it may be said that, on an average, each £100 spent on building or constructional projects include about £40 paid out to building trades workers, £45 to £50 devoted to the purchase of materials and from £10 to £15 devoted to overhead costs (which also include remuneration of various kinds).

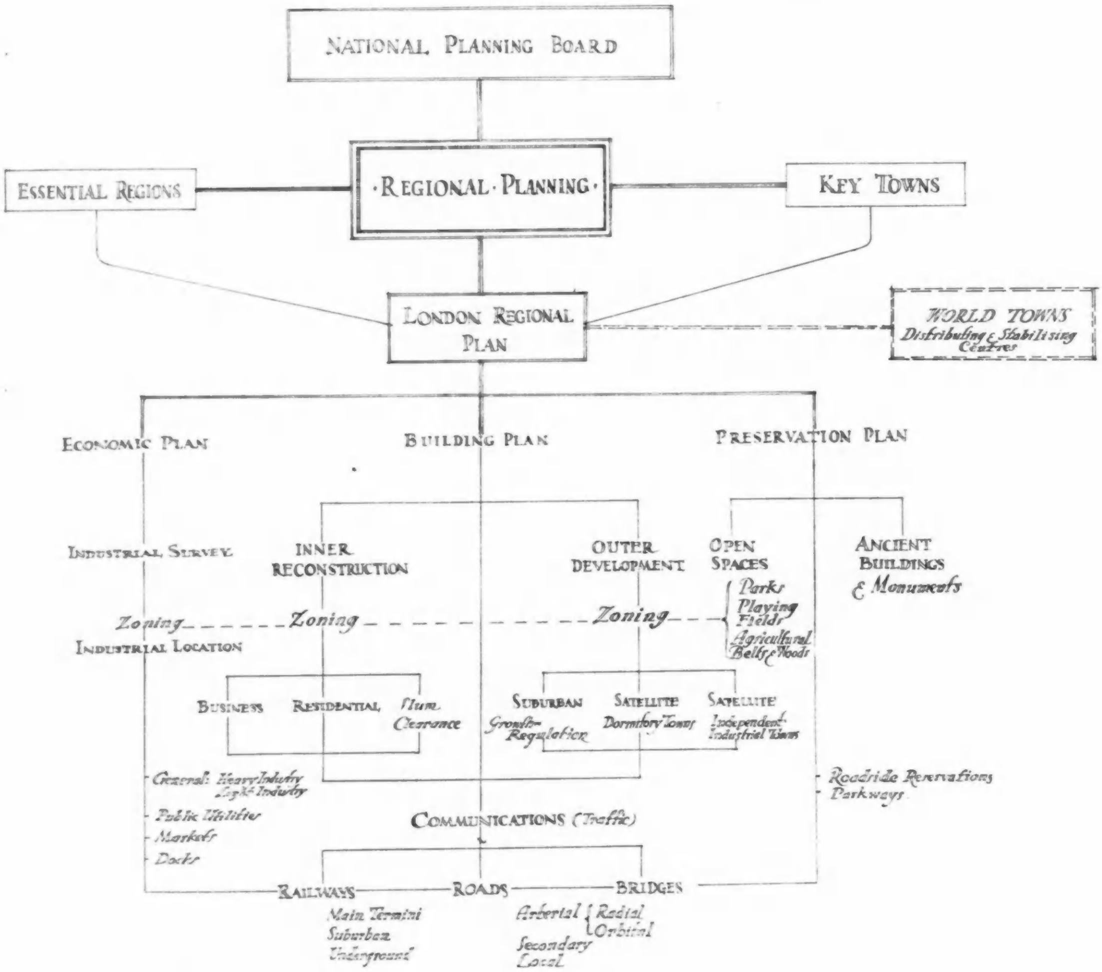
A further analysis will reveal that of the £45 to £50 devoted to the purchase of materials, probably from £35 to £40 is paid out in wages to workers in the manufacturing, producing and transport industries. Here again, the balance remaining for overhead costs will include remuneration payments of various kinds.

Thus it will appear that, of each £100 spent on building or constructional projects, over £80 is generally devoted to payment of earned remuneration—either as wages in the building or the manufacturing trades or in transport or in salaries.

The net result of refraining from an expenditure of £100 upon justifiable building or constructional projects is to withdraw £80 of wage-payments (which would have created new wealth) and to substitute two-fifths of that amount (£32) as unproductive payments at the expense of industries generally.

For every £1,000,000 of building or constructional work abandoned, the State or local authorities will be called upon to bear an unproductive expenditure of £375,000 in unemployment benefits and public assistance, while a further £425,000 is withdrawn from the purchasing power of the wage earners.

Together with their families, the workers in the Building Industry form a considerable proportion of the whole population. The total cessation of building work would mean that more than two million adult male *workers would be thrown out of employment, and that (having regard to their families) the purchasing power of eight million persons would be much reduced, with very great repercussions upon local commerce and local industries.*


NATIONAL PLANNING BOARD
·REGIONAL·PLANNING·
ESSENTIAL REGIONS
KEY TOWNS
LONDON REGIONAL PLAN
WORLD TOWNS
Distributing & Stabilising Centres
ECONOMIC PLAN
BUILDING PLAN
PRESERVATION PLAN
INDUSTRIAL SURVEY
INNER RECONSTRUCTION
OUTER DEVELOPMENT
OPEN SPACES
Parks
Playing Fields
Agricultural Belts & Woods
ANCIENT BUILDINGS & Monuments
Zoning
Zoning
Zoning
INDUSTRIAL LOCATION
BUSINESS
RESIDENTIAL
Slum Clearance
SUBURBAN
Growth-Regulation
SATELLITE
Dormitory Towns
SATELLITE
Independent Industrial Towns
General: Heavy Industry
Light Industry
Public Utilities
Markets
Docks
Roadside Reservations
Parkways
COMMUNICATIONS (Traffic)
RAILWAYS
Main Termini
Suburban
Underground
ROADS
Arterial
Radial
Orbital
Secondary
Local
BRIDGES

This diagram shows the National Planning Board —which would be related to Agriculture, Industry, Finance and Transport—as distributing its executive functions through Regional Planning, exercised by essential (i.e., socio-geographical) Regional Units and Key Towns. The London Regional Plan is shown as an example, in detail, as a region around a central nucleus—though a phenomenon in the economic organization of the country, by reason of its situation and functions as a national administrative and world financial centre.

For clarity, the Regional Plan is divided into three branches: (1) Economic Plan, (2) Building Plan (including communications), (3) Preservation Plan; though these are, of course, in practice inter-connected. The first relates to an industrial survey and zoning for industries and public utilities. The Building Plan is divided into Inner Re-construction and Outer Development, from which proceed categories of development filtered by the process of Zoning. With these are inter-connected Railway, Road and Bridge communications. The third branch, the Preservation Plan, relates to the provision of open spaces, including Parks and Playing Fields; to which is added the essential revivified Regional Agricultural Belt or background, depending upon a definite agricultural policy. The Preservation Plan would also include the reservation of roadside strips for checking "villa" development. The preservation of ancient buildings and monuments (requiring some sort of schedule) also comes within the legitimate scope of this group.

as eminently desirable. Representatives of other essential industries, landowners and agricultural interests would be co-opted to the board. This board would then approach the Ministry of Health which, I am informed, would be inclined to regard its existence favourably, in order to obtain an official blessing and official aid. Possibly a representative from one or more of the Government departments would sit on the board.

Some public statement of policy would no doubt be required and the board would then proceed under the advice of the Ministry of Health to revise and integrate the regional surveys, co-ordinating the activities of one region with another until a general picture of the nation's social, industrial and economic requirements could be evolved. Possibly the country would be split up into several main districts, as it is under the Central Electricity Board, the Traffic Commissioners and the Ministry of Labour.

FINANCING BUILDING: THE SECOND STAGE

Having completed its economic survey and having gained the support of the various Government Departments involved, the planning board would then proceed to the second stage of its activities. It would proceed to finance and put into operation such schemes as met with the approval of itself and the Ministry of Health, in exactly the same way as the Central Electricity Board finances electrical operations.

THE BANKERS' INDUSTRIAL DEVELOPMENT COMPANY

The financial basis of large constructive schemes initiated on the advice of the planning board—such as have been indicated on p. 79—would involve the co-operation of building finance companies for the raising of initial capital. We have the case of the Bankers' Industrial Development Company in connection with the Northamptonshire Ironworks developments. If this project, for instance, were assumed to be part of the board's programme, the machinery for the complementary provision of housing and regulation of development would be available *pari passu* for utilization by the local and regional authorities.

"SPECULATIVENESS"

For other works, a large amount of capital now locked up on account of the excessive *speculativeness* of building without facts, figures, knowledge of requirements, potentialities, movements of population—the *speculativeness* which invariably accompanies building *without planning*—would become immediately available.

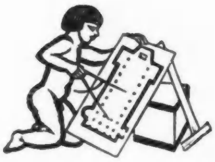
Planning, national, regional and local, will do more to attract the investor than propaganda. For planning, as Mr. W. R. Davidge very rightly says, not only creates values but maintains them. The general trend of development can thereby be reasonably foreseen.

There is no further space in which to develop this theme, but I hope that the nature and functions of the planning board will be discussed in future issues of this JOURNAL. Such an organization would be "typically British" in its combination of—or compromise between—individual enterprise and Government control. There is no virtue in state control of industrial organization if this can be achieved by co-ordination amongst the industries themselves, including the basic industries of agriculture and building.

LASTLY—

Let us remember that our gods are just gods. The so-called slump will not suddenly get up and walk away. "Good times" will remain round the corner until we take the trouble to turn it ourselves.

ARGUMENT



¶ *National policies have been made to aim at a balanced budget. Rigorous deflation has been practised; national security is preached through reducing wages and construction. Strong counter-measures are necessary to reverse these negative policies. True economy is wise spending at the right time.* Now *is the time to build.*

Building is a good investment: credit and materials are plentiful and cheap; building costs are lower than they have been at any time since the war or are likely to be in the future.

Building relieves taxation: over two million workers are directly affected by the Industry and a further two million indirectly. Eighty per cent. of the total cost of its products is disbursed in weekly wages, causing a constant circulation of purchasing power. The Industry obtains practically all its raw materials in the country.

Building is a necessity of progressive manufacture: England has acres of obsolete factories, streets of out-of-date offices, miles of slums, and at least 1,200 schools unfit for children. All these must be reconstructed.

Cheap money, labour and materials are available; yet investors hesitate.

The Public Relations Committee of the Building Industries National Council have made clear the position of the Industry in relation to National prosperity, its power to render efficient service in national industrial rehabilitation.

Architects must play their part by rationalizing their own activities.

¶ *National prosperity must be the aim of every industry. It is only combined effort that can assure individual welfare and prosperity.*

The new National Council of the Building Industry seeks to maintain the Industry as an efficient unit in the economic structure of the country. Its offspring, the Public Relations Committee, has been formed to act as a consultative and advisory body, to collect, co-ordinate and give expression to views affecting the Industry as a whole, to consider matters relating to external factors, to collect statistics and data, and to co-operate, when desirable, with similar bodies in other industrial groups.

The policy of the National Council is planned and organized progress. Coal, steel, electricity, agriculture, transport and other industries are rationalizing themselves. The time is rapidly approaching when co-ordination in and between all industries will be accomplished. Cut-throat competition can only result in increasing the unproductive load of national social services. National prosperity through efficiency is the aim of the Building Industry.

There is no basis for the theory that the future of the country should be confided entirely to unco-ordinated and highly speculative operations.

Economic reorganization must be on the widest scale, and a sound policy of development spreading over a number of years must be rigidly adhered to.

It is not enough that the Building Industry should organize itself. A plan for the Building Industry involves a plan for the whole country. Our future depends on our capacity to size up the nation's economic capacity.

The whole of Great Britain ought to be examined in the closest detail by a National Planning Body with a view to deciding what should be the balance of activity as between one area and another, what resources exploited, what industries encouraged and what public utilities and services developed.

There must be National Reconstruction through the combined efforts of every industry, led by the Building Industry, of which the architectural profession is the brain.

¶ *How is National Reconstruction to be achieved?*

—By a National scheme of co-ordinated town and regional planning. The time has gone by when urban development can be looked upon as a purely local affair. Individual cities, even regional groups, cannot take a wide enough survey of economic or social factors to be able to plan for the future with confidence. Only a National Survey can comprehend the country as a whole.

—By setting up a National Planning Board, organized by the Building Industry, which, while free from political influence, would make contacts between the Ministry of Health and other Government departments where necessary. Its function should be to plan in outline the distribution of population, based on economic surveys, and, in co-ordination with electricity and transport and arterial road construction, to inspire town planning and building throughout the country. The Board should have power to raise money to finance planning and building schemes.

LETTERS FROM READERS

Carlton House Terrace

SIR,—It is difficult to use temperate language on the proposed devastation of Carlton House Terrace, and I cannot trust myself to make any comment either on the destruction of the existing scheme or the design of the "bloomer" (if I may call it that) which is to replace it.

One question arises and I think it ought to be answered; who are the men who have sanctioned the disaster? Would it not be possible for you to publish portraits of them? It would be well to know what such men look like. It might be possible to forgive them much if we could see their faces, and again, perhaps, it would enable us to understand everything about the scheme and the motives that prompted it.

A humble suggestion, Sir, but I am sure it would gratify your readers if you could act upon it. JOHN GLOAG

*[A portrait of Mr. A. S. Gaye, the Permanent Crown Commissioner, is given on page 89.—*ED. *A. J.]*

SIR,—I am very pleased that you have undertaken a movement to prevent the demolition of these houses. Are the amenities of the public parks improved by tall and unsightly buildings?

My own view is that the value of London is deteriorated by spoiling or doing away with the amenities for private houses as London has not the architectural attractions of Continental cities, which have rules to preserve buildings. On the other hand, there are many sites of mean houses in London which might be improved by large buildings; and it is not necessary to sacrifice the advantage of a private residence for that of an office. The first duty of the Crown Commissioners should be to the city as a whole before their own immediate affairs.

CALEDON

*[The Earl of Caledon, whose letter is printed above, is the occupant of No. 5 Carlton House Terrace. The house was leased to him by the Crown Commissioners in 1926 for a period of sixty years.—*ED., *A. J.]*

Greater London Planning

SIR,—I admire your courage and tenacity in continuing to devote so much prominence in your influential JOURNAL to the above matter and to the subordinate but inseparable problem of Carlton House Terrace; but I cannot help echoing the sentiments expressed in your last issue in connection with the latter, namely, that you might (without imperilling our loyalty to the R.I.B.A.) do something about the Portland Place façade. Especially about the surprising columns which flank the main entrance. Can you imagine what an expectant public will say to what looks like Adam and Eve stuck on posts in enforced separation on either side of the great portal? Besides, are not these excrescences, however amusing, rather dangerous to the matrimonial stability of a future President, who may, after a festive installation, back his Rolls into the dexter one and return home with the wrong Eve?

This of course may or may not happen, but what must happen at all costs is that London must be planned. The Carlton House Terrace scheme, or any other, cannot be viewed properly in the absence of a co-ordinating plan any more than can the rebuilding of one unit of the Terrace without reference to a scheme for the whole.

You, however, state in your current leader that "London by its official inaction in this matter (of planning) has focussed the criticism of world opinion." Whilst feeling that this observation must be perfectly true, I cannot help thinking that the planning of the vast London Region is a very grave problem, and I doubt whether there is a man living (from the Minister of Health downwards) who would care to shoulder the tremendous responsibility of taking the really drastic measures which would need to be taken if this "official inaction" were to be successfully overcome. Local authorities are very jealous of their powers, and in my opinion you will never get a plan for Greater London until an Act of Parliament is passed, setting up a Special Commission charged especially with this task, under the leadership of one such as Sir Raymond Unwin, who, in spite of almost insuperable difficulties, has so ably piloted the ship so far. The weight of public opinion is, I believe, more in favour of planning than at any previous time when similar attempts have been made to plan London. The present urgency of the situation should at least secure a sympathetic ear in the House, though of course the intricate detail to be worked out would not make for a speedy passage.

The Act would, of course, only deal with the machinery necessary for the preparation of, and define the scope of, the plan (including the legal instrument) and do no more, for, as you wisely state, "such a unique and vital problem as the Plan of London in its initial stages could not properly be compressed into a too restricted legal framework."

The object of such an Act would, of course, be in effect to command that a plan shall be prepared for the Greater London Region and to define exactly by whom and by when it is to be so prepared, and at what cost, etc.

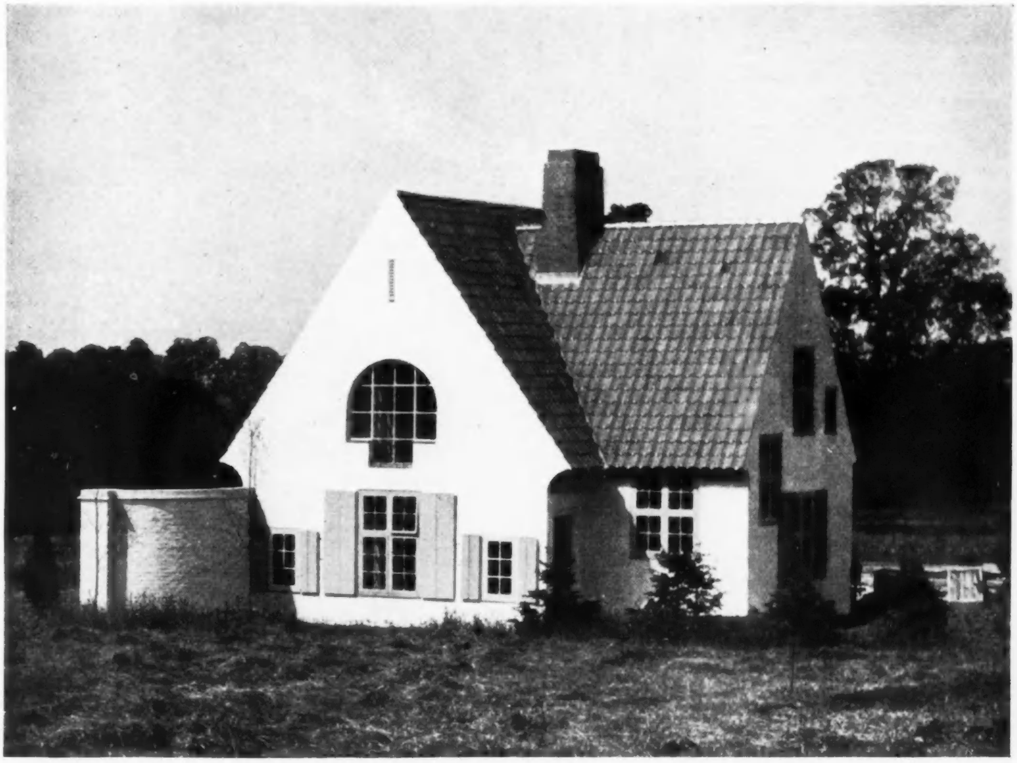
The planning of Greater London is a problem in itself and should not be confused with schemes which may be prepared throughout the country under the Town and Country Planning Act, 1932. London is the capital of a vast Empire, but it has no Mussolini to control its destiny. The whole principle of English constitutional law dictates that important undertakings must receive the direct sanction of Parliament, and only by the passing of a special Act will we, I submit, ever get a plan for London.

The legal instrument, as part of the plan, would, of course, need to determine the method of enforcement. It is no use preparing a plan if it is not enforced, at least so far as its main outlines and spirit are concerned—and this would probably ultimately entail a supplementary Act; but first let us plan and always remember that it is the architectural expression of the plan that ultimately matters, so that, in preparing, administering and realizing the plan, we shall need skilled architect-town-planners, of whom at present we have all too few.

I suggest in conclusion that your JOURNAL might do worse than engage in an intensive campaign in favour of direct legislation facilitating the planning of Greater London.

T. F. THOMSON

SOME BOOKS OF 1932: AN ARCHITECT'S SURVEY



HOUSE AT ABINGER, SURREY, *DESIGNED BY OLIVER HILL*

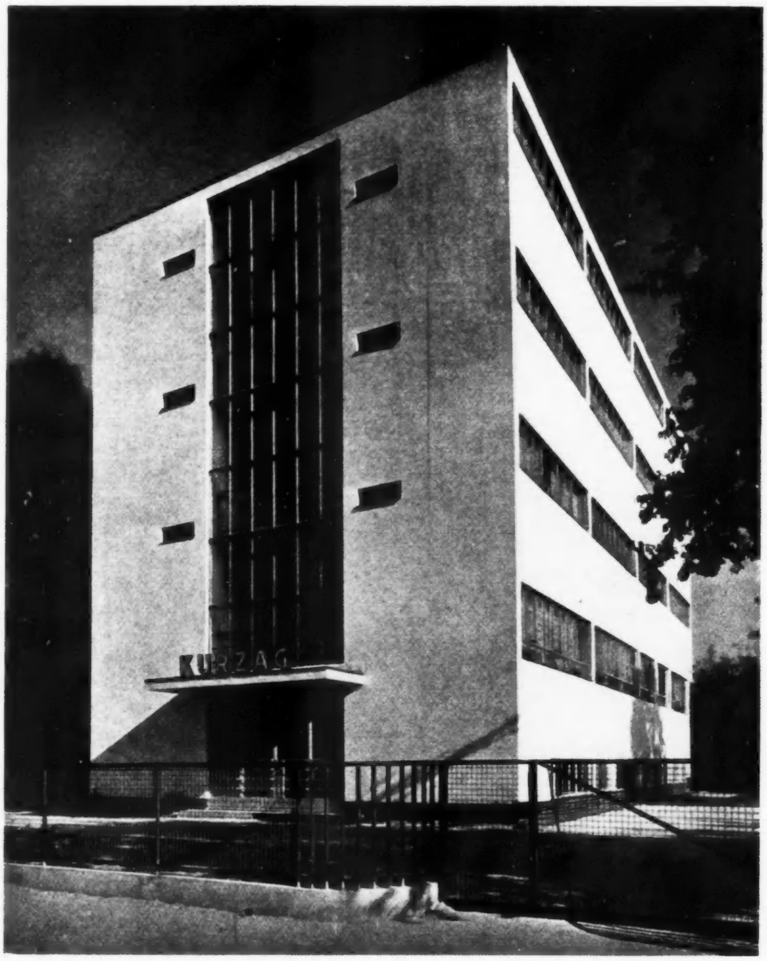
Cost: approximately £1,100. Materials: the walls are of brick, 11 ins. thick, cavity-built, and are slurried over with white cement. The chimney is in heather-coloured 2-ins. bricks; and the roof is covered with jade-green Dutch pantiles. The shutters to the front elevation are in salmon pink; the floors and stairs are of oak. [*From* SMALL HOUSES AND BUNGALOWS.]

BY P. M. STRATTON

THE year 1932 has been marked with black letters for architects by the slump. Affecting primarily the commercial and industrial types of work, it also lessened the demand for good class medium-sized houses. The sort of man who built a country house with as little concern as he took a fence was already broken by war and taxes, of course; to make good the wastage in clients, architects have turned their thoughts to the enlargement of the scope of their work. They still see considerable sums being spent on small residences in town and country, for which their services are not asked; and they feel afraid lest the concrete and steel factories, workshops, bridges, garages, power stations and other industrial buildings may fall from the laps of our plutocratic gods to the engineers.

It follows that the most important books of last year are those which the architect may use to extend his authority and make his point of view acceptable to a number and variety of persons. First there came that best seller among booklets, *The Adventure of Building.* Written in simple and disarming style, it made out a good case for the use of an architect's knowledge and imagination. The writer's points were these—the architect obtains the lowest price at which the house can be properly built, he is an expert on materials and construction and obtains the most desirable results for which the client can pay, he can give an individual note to a house, he will prevent abnormal charges for variations from the contract. The appeal, of course, is to the special class of the " New Poor," whose ranks are filled by those rising into it and assimilating its manners and mode of living as well as by those who drop down into it and obstinately keep their particularism.

A WAREHOUSE AT BRUNSWICK



The Kurzag Warehouse and Offices, Brunswick, Germany, designed by Otto Haesler, shows the thorough application of the principles of contemporary design. The symmetry is functionally justifiable since the stairwell serves central corridors. [*From* THE INTERNATIONAL STYLE: ARCHITECTURE SINCE 1922.]

We cannot begin too young in the defence of art, and Mr. Humphrey Pakington has written a book for the children who have a " birdnesting eye " for buildings ; it is called *How the World Builds*, and if the reader did not give it to his nephews and nieces this Christmas, let him note it for the next. The drawings alone, by Mr. Enthoven, are worth the mere half-crown which Messrs. A. and C. Black charge for their " How and Why Series."

One way to spend the enforced leisure of a slump is in studying how the other man designs and in comparing his results with our own—a pastime which Mr. Chatterton makes agreeable by the book he edits on *Small Houses and Bungalows*. He includes 104 varieties in his collection, each costing under £2,000, and gives dimensioned drawings with his photographs. The examples are from towns, the country and the seaside, and include houses on the L.C.C. estates. Together they form an impressive show of traditional lively English work. Reverting to the work of the L.C.C., it is seldom that " official architecture " is recognized in such a volume. A group of men, however, such as the L.C.C. staff, who spend their lives in solving endless varieties of the same problem, pooling their knowledge under a technical head, do arrive generally at highly accomplished results, in a quiet way.

If architects are to oust the speculative builder, a man who has organized his job to combine the last farthing of cheapness with the last compatible ounce of attraction, they must go one better, using in their case imagination to find both economies and smartness, and Mr. Edwin Gunn's book, *Economy in House Building*, will be a safe guide, especially to the younger man. And here should be mentioned the latest book of measured details by C. Woodbridge and Tunstall Small. It is called *English Brickwork Details* and comprises examples of such modest features as are suitable for small buildings.

Before leaving the subject of house design, it is fitting to mention Mr. Alan Fortescue's experiment—he is building a series of flat-roofed houses as a speculation, and it is to be hoped he will in due course give the world his experiences as a builder-architect in what may be a very interesting volume. There is no doubt that many architects are prepared to follow his example, and for them " Kidder-Parker's Architects' and Builders' Handbook," an Anglicized hold-all of American origin, is well worth having. *Pricing and Costing for Buildings and Public Works* is another useful and practical work ; meanwhile an old friend, *Spon's*, has entered its 59th edition under the editorship of Mr. Clyde Young.

In regard to the sections of building over which architects have a divided sway with engineers, two useful books come from Germany on garages—*Kleingaragen und Hallengaragen* and *Grossgaragen*, both by Hans Conradi. The latter is particularly valuable as showing the most economic use of city sites. Few lifts for motor cars are being installed on the Continent, the ramp being the general practice for increasing the floor level. Underground garages, constructed under streets and squares, are pretty sure to arrive in due course. Not merely floor space is usually provided in these " grossgaragen," but repair shops, spare parts stores, body and spraying shops, washes, tanks and pumps, and a central ticket office to control both entrance and exit.

The literature of aviation shows the addition of *Aviation and the Aerodrome* by H. A. Lewis-Dale, and *Buildings for Aerodromes* by the British Steelwork Association (the latter a piece of intelligent salesmanship). Mr. Alan Munby has given us the fruit of long experience in *Laboratories, their Planning and Fittings*.

Applied Building Mechanics, by A. D. Turner, meets the needs of factory designers by its simplification of advanced mathematics. Steel construction, it may be added, on the authority of the *National Physical Laboratory Report of 1931*, is possibly to receive a fillip by the adoption of electric fusion welding for joints of steel-framed buildings. This method is in vogue on the Continent, but not yet permitted in Great Britain. Another State publication is on *Empire Timber*, by the E.M.B., from which is surely due one of its colourful posters to "Tell England" about Empire woods.

The stream of Regional Planning reports flows on—the past year has seen the issue of those on Eastbourne and District, Cumbria (including much of the Lake District), West Surrey, South Essex, Brighton and Hove, and Mid-Northamptonshire. The Brighton and Hove report is of especial interest because the electrification of the railway line from London has been completed, and Brighton's fate to become London's biggest dormitory will be consummated. Messrs. Adams, Thompson and Fry are responsible for the volume, amongst others, on Mid-Northants, a region lying round about Wellingborough, on the öolitic backbone of England. It is recommended to bye-pass such lovely but irregularly planned villages as Irthlingborough and Rothwell; it is proposed to return the many scrapheaps left from quarrying, and subsidences formed by mining, to agricultural use, and that steps shall be taken to stop the spoliation due to these causes. The report should be carefully studied by all concerned in the enterprise lately announced for establishing a huge steelworks on the border of the region.

It is doubtful whether any of our younger men will write more mettlesome reminiscences than *Memoirs of An Architect*, by Sir Reginald Blomfield; he has played Rugby football for Haileybury and Oxford, batted to first-class bowling, hunted, and been a highly successful agitator. The last of the Victorian "Toughs," his courage outlived the Great War and the Menin Gate has the look of it. His brother professor, C. H. Reilly, has completed 25 years' service as head of Liverpool University School. A witness of regard and veneration has been prepared in last year's *Book of the Liverpool School of Architecture*, which has a reproduction of Augustus John's great portrait, and a personal appreciation by Mr. S. C. Ramsey. The homage from his past pupils takes the form of photographs of their buildings; in the majority of them may be traced the clear-cut and logical Greek manner which seems native to the Professor, and is exemplified in his own work, such as the Veterinary Building at Liverpool.

Journalistic skirmishings have continued merrily throughout the year between traditionalists and modernists. As though to spur on the combatants, Mr. Goodhart-Rendel has had published in book form many of his provocative lectures, and *Vitruvian Nights* has delighted everybody by its wit and pleased nobody by its conclusions and lack of conclusions. For the author leaves us in No Man's Land, and with his last chapter, "Where Are We Going?" his verbal lightning passes before direction can be traced. Probably Mr. Howard Robertson's *Modern Architectural Design* is the most effective book on architecture of the year. The chapter on Organization and Plan is a tonic to the mind. As an exposition of Functionalism the book appears adequate. The author, however, might have stated the case of those who see in "Modernism" more than the function of the building, and who point out that adjoining buildings with differing functions must sink their differences if they want to be as satisfactory as, say, Carlton Gardens and Dorset Square; and that such examples prove the importance of function to be exaggerated and suggest there is some other wider and deeper-founded basis to architecture. (It is certainly true that when we speak of a "functionary" it is with faint scorn, as of something a little lower than a man.) The volume, therefore, though generally thorough and inspiring, allows its subject to escape the net of words on certain pages.

English architects still find their chief inspiration in a type of patriotism which includes the buildings of England as part of the soil, a thing to which loyalty is due. Apparently their Spanish brothers do not have a similar outlook, for no complete history of their art exists. The Marquéz de Loyonza is to fill the blank, however, with his *Historia del Arte Hispanico;* the first volume, in which the origins of Spanish art are traced, has now been issued. Meanwhile at home we continue our manuals and great volumes of devotion to the past. *The Windmills of Essex, Herts. and Bucks.* have been recorded. The Royal Commission has issued a further inventory of *Historical Monuments*, dealing with East Herefordshire. The high standard of these publications is maintained; the photographs are composed with excellent taste, and take us half-way to the enjoyment of what we may not have time to see in actuality. But the setting cannot be given in a book, or realized without a visit to this county, which has mighty hills and rivers, but not harshness or barren marshes; and where the farmhouses are deep in cider apple thickets; and vast cattle make the meadows small; and the ploughed soil wears purple.

LAST YEAR

BY ASTRAGAL

LAST year started fairly hopelessly with an unbalanced budget. I remember dimly that an international conference on debts and money was to seal our fates in June. But June came and went with no solution, and the rest of the year rolled by, creaking ominously, but reaching this latter end "bloody but unbowed."

*

During the year we felt the after-effects of a hardly-balanced budget. Waves of criminal parsimony, misnamed economy, added increasingly to unemployment generally, and, in the building industry, to an extent that will leave a permanent mark. We reached the end of the year with over 40 per cent. of unemployment in building and no remedy but *wait*, *see* and, above all, *hope*.

*

As a profession we are unprepared for bad times. Architecture is still too gentlemanly. Half our practice is done by engineers, estate agents, shopfitters and departmental stores. Our elders sniff at "functionalism" as though it were a state of sin, though Wotton placed "commodity" first in his trinity of virtues.

*

But, my friends, there is nothing so upshaking to hidebound tradition as depression. Writers are driven to write for money, and architects—and others—to think. The year may see us saved.

*

The newest thing born out of last year was the ill-starred Town and Country Planning Act. Saved over from the wreck of a former Parliament, it struggled manfully through two readings only to fall victim to a wanton and ill-judged attack in Committee. The narrowest interests of property, goaded by fear, treated this wise and by no means over-Socialist measure with the utmost brutality, so that it emerged at last unrecognizable and, for its great purposes, nearly useless. The R.I.B.A. fought manfully, in the person of its President, for an Act that might have launched us fairly on a task to defy even depression at its worst.

*

For the R.I.B.A. itself the year has been great with promise, for close upon the heels of Registration accomplished came the designing of its new quarters in Portland Place. It was indeed an adventure to make strong men pause. A move from Conduit Street was imperative, but to put up a great and important building at a time when the whole body of architecture was, phœnix-like, consuming in fierce flames and not yet newly risen, was a grave risk. Thoughtful criticism had already rejected the old formulæ and looked to the profession to evolve out of the competition a solution of difficulties successfully met by Continental designers; and we ourselves, led on by fair words, were hopeful.

*

But even our best friends averted their eyes from those miles of depressing, still-born drawings that hung the walls of Thames House; for the central problem was hardly touched upon, and every trick, every outworn cliché, and nearly every style but style itself, found representatives—sometimes surprising representatives!

*

It is matter for congratulation that we should have been given the new premises as they exist on paper today. They appear to me to be an elegant and personal compromise between what was and might have been: the inevitable outcome of a period of change, when young men have still to look backwards for an approval they would be better without.

*

Another competition, for the Town Hall of Norwich, was taking place at the same time, attended with no less happy result. A definite departure from the very medium standards of municipal architecture was achieved in a grandiose scheme, which, when carried out, will create one of the finest and most interesting communal centres in Europe. Alas, economy sits heavily at this moment upon Norwich, as upon all England, and the good effects of that competition are for the future.

*

Depression and economy are our enemies, but in some strange way the deliverers of architecture. The problems which the year has opened to us, slum clearance and the housing of the very poor, could never have been fairly met with the weapons of the academic tradition. Even now we are not certain of the approach, but the need for economy has whetted our taste for enquiry and brought us closer to the bones of the thing.

*

The howl of rage that greeted an attempt to exploit a sentimental and unpractical approach to the building of a small house showed the spirit of the times. That disastrous competition for a £1,000 *make-believe* house proved beyond a doubt that architects were saying "Good-bye to all that," and moving perhaps towards a more logical solution.

*

The plan of London kept well out of sight throughout the year. A new bridge was built at Lambeth, with stone piers, gilded pineapple pylons and very daring steel arches left uncovered. But at the last moment the steel work was painted stone colour.

*

Otherwise, small fragments of London continued to fall off here and there, being replaced by lumps of greater weight in order to obliterate the memory of what was there before. A clock bigger than any for miles around, and bigger even than the building upon which it sits, was placed on a new commercial building on the site of the late Hotel Cecil. The last classical palace of the City of London was built for the directors and clerks of a soap company further along the Embankment. These were all subsequently outweighed by the Freemasons' headquarters, lying embedded beyond Covent Garden.

*

Further afield, the Underground Company performed good deeds in a naughty suburban world by building a chain of lively, graceful and altogether delightful stations; one good station to ten square miles of suburban dreariness: a good democratic ratio.

*

Another great concern, the B.B.C., was brave enough to let young men loose upon its unfinished studios, and has had no cause to regret it; and finally, as though the tide had indeed turned in favour of common sense and good works, the Senate of London University appointed as their architect for the vast new central university buildings the very best man for the job.

*

Alfred D. S. Rice, new president of the London Master Builders' Association.

Therefore the gloom is seen to be spangled with some stars of real effulgence. But lest we should think ourselves too nearly out of the wood comes the Carlton House Terrace rumpus, led by our stoutest anti-revolutionist, a host in himself and a fighter before anything.

*

I advance beyond my allotted time. I may not predict the future, but only hope for my readers and myself that the year 1933 will be a good deal better than this last.

ARCHITECTURE INVESTED

BY JOHN GLOAG

London is no mean city, save in thought,
For any portion of it can be bought
And changed from something that was almost planned
To something manifestly out of hand,
And those who criticize are soon requested
To recollect that *interests are vested!*

There was a Terrace once, a noble span,
A part of London's most enlightened plan;
But bricks were dropped and bloomers were committed,
And civic wisdom once again outwitted;
Too late we learned that business men had nested,
Thereafter, *all the interests were vested!*

A half-completed patchwork that must line
Approaches of magnificent design
Will not for half a century attain
The unity once lost for petty gain;
When sense by crass stupidity is bested,
Thereafter, all the interests are vested!

Is all the gimcrack, hugger-mugger maze
Of bank-clerk's classic in its senile phase,
That darkens every changing London way,
To speak for architecture of to-day?
No, to the future let it be suggested
This style's *commercial*, like the *interests (vested)*.

Building Exhibition

The fifth International Exhibition of Building and Allied Trades and Decorative Art is to be held at Brussels from January 18 to 30. Application forms may be obtained from the Department of Overseas Trade.

CROWN LANDS

A paper was read by Mr. A. S. Gaye, Permanent Commissioner for Crown Lands, at a meeting of The Chartered Surveyors' Institution on Monday last. The paper is discussed by Miss M. I. Batten in the following article.

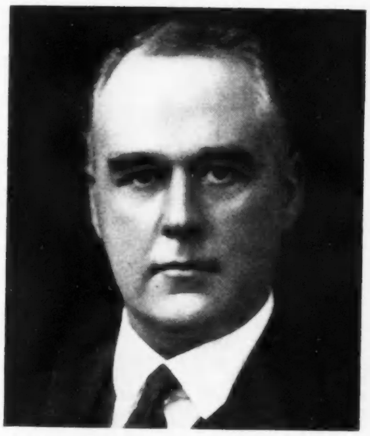
THE paper read by Mr. Gaye on Crown Lands at The Chartered Surveyors' Institution was most interesting, especially in view of all that has been written recently in this and other papers about the Commissioners of Crown Lands and their management of property. Mr. Gaye presumably thinks that this paper of his makes the whole position clear, and justifies every action taken by the Commissioners in the past, the present and the future. Mr. Gaye, having read his paper, obviously expects a chorus of " Well done, thou good and faithful servant." May I, as a " peevish scribe " continue to be peevish and extract a few points from his address and discuss them ?

At the beginning of his paper Mr. Gaye stated that " the history of the hereditary estates of the English Crown may conveniently be divided into two periods," before the accession of Queen Anne, and after. " *The distinctive feature of the second period, from the beginning of the eighteenth century to the present day, is the gradual assumption by Parliament of responsibility for the expense of government, necessitating control of the national revenue, including the revenue from Crown Lands.*"

If Parliament accepts the responsibility for the control of the revenue from Crown Lands then the First Commissioner, *ex-officio* the Minister of Agriculture, must *ipso facto* have the deciding vote in any matter relating to the management of the Crown Lands. In the House of Commons recently Major Elliot said that no clash had ever occurred between the First Commissioner and the Permanent Commissioner, at present Mr. A. S. Gaye, and " that if there was any difference of opinion he did not know what would happen."

A challenging question by Sir William Davison, in which he suggested that " the two Commissioners have equal powers," was not contradicted, but this statement of Mr. Gaye's would seem to admit that the Minister of Agriculture is his superior and that the Commissioners of Crown Lands are responsible to Parliament.

Two-thirds of Mr. Gaye's lecture dealt with the history of the Crown Lands, with various references to such things as " *Kings persistently sold Crown Lands in order to provide money both for their personal needs and for the general purposes of government, and Parliament, with equal persistence, passed Acts of Resumption re-vesting the alienated estates in the Crown.*" This seems to have a parallel in the story of the Regency fireplaces in No. 4 Carlton Gardens. It will be remembered that these fireplaces were sold by the housebreakers to a dealer, from whom they were brought by the National Arts Collection Fund and presented to the Victoria and Albert Museum, who treasure them greatly. Thus in the year of grace 1932 the Nation's property still goes wandering, but now it has to be bought back again by the nation instead of being firmly taken possession of as was done in the good old days which Mr. Gaye deplores.



A. S. Gaye, C.B., O.B.E., the Permanent Commissioner for Crown Lands.

But many kings seem to have behaved in this way, and later, though a law was passed which " *effectively restrained Queen Anne and her successors from indulging their generous instincts* " it did not, according to Mr. Gaye, " *provide against the corruptibility of Ministers, and the insatiable acquisitiveness of other public servants.*" The story of the Crown Lands as told in this paper seems to be a sorry sequence of bad management mixed up with countless Bills and Amendments endeavouring to put things straight.

In 1786 Parliament passed an Act appointing three Commissioners to enquire into the state and conditions of the Woods, Forests, and Land Revenues of the Crown, and these Commissioners denounced " *in scathing language the malpractices which persisted.*" Incidentally, Mr. Gaye does not explain when and why the three Commissioners were reduced to two.

Between the years 1794 and 1829 19 statutes dealing with the management of the Crown Lands were passed and " *at last in 1829 the law on the subject was consolidated by 10 Geo. IV, cap. 50. This Act of Parliament covers 63 foolscap pages in print, and although a great part of it has since been repealed, or re-enacted, it remains the principal Act under which the present Commissioners of Crown Lands exercise their powers, and some of its main provisions deserve particular notice.*

" *Section 8 defines ' the Possessions and Land Revenues of the Crown to which this Act relates' as 'All Honours, Hundreds, Castles, Lordships, Manors, Forests, Chases, Woods, Parks, Messuages, Lands, Tithes, Fisheries, Franchises, Services, Rents, and other Land Revenues, Possessions, Tenements, and Hereditaments whatsoever (Advowsons of Churches and Vicarages only excepted) which now do belong to His Majesty, or hereafter shall belong to His Majesty, His Heirs or Successors, within the Ordering and Survey of the Court of Exchequer in England or Wales, in Ireland, in the Isle of Man, and its Dependencies, and the Isle of Alderney, whether in Possession, Remainder, or Reversion.'*

" *By Section 9 the Commissioners are required to observe the directions of the Treasury ' not being contrary to the provisions of this Act,' and by Section 10 they have to swear that they ' will truly, honestly, faithfully and diligently execute the duties of their office.'* " Mr. Gaye goes on to say that " *then follow precise instructions defining the Commissioners' powers and duties in respect of sales, purchases and leases, Section 25 providing that no part of the Royal Forest Parks or Chases should be leased, and Section 61 requiring a survey to be made in each case, with some trifling exceptions, and the surveyor has to swear that he has acted faithfully and impartially to the best of his skill and judgment.*"

I quote Mr. Gaye at such length because he complains at the end of his lecture, " ' *Who are the Commissioners of Crown Lands ?' rhetorically asked a peevish scribe in a popular journal a few weeks ago, and did not wait for an answer ; he supplied his own rhetorical answer, ' No one knows.' Anyone who wishes to know can easily find out.*" Supposing a " peevish scribe " wanted to know what the powers and duties of the Commissioners were ? Mr. Gaye purports to tell the world in this paper of his, but actually he produces a string of words and names from an old Act, grand sentences which reverberate with " truly, honestly, faithfully, and diligently," but divulges nothing of the " precise instructions " governing the Commissioners' powers and duties. We are almost as much in the dark as ever we were. For instance, we have not the smallest idea how and when the Commissioners come to such grave decisions as that recently taken to destroy the amenities and beauties of Carlton House Terrace and Carlton Gardens and change stucco for Portland stone, residential for commercial, and altogether ruin one of the nation's finest possessions. There are only two Commissioners. Do they just have a telephone conversation or a jolly lunch and say "Let us pull down Carlton House Terrace"? Are the 251,000 acres of Crown Lands managed in this way or are there regular committee meetings with quorums and minute books? It seems inconceivable that such a vast business should not be run on the most thorough business lines, but nothing that has leaked out so far in Parliament or in Mr. Gaye's paper gives us any clue as to how this immense property is managed. Most big business firms have a managing director and a number of other directors who discuss at board meetings all matters of importance. But apparently not so the Commissioners of Crown Lands.

Mr. Gaye goes on relating the history of the Crown Lands, of how they were connected with Parliament, taken away again, and connected again by the Crown Lands Act of 1906, which made the Minister of Agriculture and Fisheries the First Commissioner.

"*From the foregoing summary it will be seen that a great amount of parliamentary time has been devoted to legislation affecting the hereditary landed estates of the Crown, more, perhaps, than to any other subject. And the end is not yet. There are still doubts to be removed, still difficulties for which the law at present provides no satisfactory solution, and it may be safely predicted that before very long Parliament will once more be asked to consider a Crown Lands Bill.*" We think and trust that Mr. Gaye is right in this.

The powers and duties of the Commissioners are summarized by Mr. Gaye as follows:—

First, they must preserve, and, if possible, increase the capital value of the estates entrusted to their charge—for the benefit of the reversioner, the Crown.

Secondly, they must collect the revenues from those estates, and after defraying the costs of collection and management, they must pay the balance into the Exchequer—for the benefit of the tenant for life, the public.

Thirdly, and generally, they must act reasonably, in accordance with the principles of good estate management.

We would like to ask if it is "*in accordance with the principles of good estate management*" to encourage private persons to take long leases on a "strictly residential" basis, as has been done in Carlton Gardens and Carlton House Terrace, and then, without a by-your-leave or word of warning, to instal a commercial firm in an utterly alien new building in the midst of these older lessees? If so, if this is the correct principle of landlords, as shown by the Crown Commissioners, then no lessee in the future on any property can have any feeling of security. "*A strange belief exists in many minds,*" continues Mr. Gaye, "*that the Commissioners of Crown Lands can and do defy the laws which are binding on private landlords, and that they can and do treat their contracts as scraps of paper.*" Considering that almost all the lessees of Carlton House Terrace and Carlton Gardens have had to agree to use their houses for residential purposes only, and that they have taken long leases on the understanding that the whole property is "residential," the Commissioners have surely come very near treating "their contracts as scraps of paper"; for although they have signed nothing to say that this property is residential they have, until as recently as 18 months ago, forced that clause on their lessees.

"*The Treasury can be trusted to prevent any excessive generosity, and public opinion, expressed in Parliament and the Press, will unfailingly call the Commissioners to account for any real or imaginary infliction of hardship.*"

Doubtless the Treasury can be trusted, but the Commissioners see to it that they themselves act quickly and silently and destroy the Nation's property before the Press or Public Opinion hear a word of the matter. Parliament, Public Opinion and the Press are doing their utmost now "to call the Commissioners to account" and we can only reiterate Mr. Gaye's hope that before very long Parliament will once more be asked to consider a Crown Lands Bill. In view of the Carlton Gardens scandal reorganization of the management of the Crown Lands has become essential.

M. I. BATTEN

LAW REPORT

ALLEGED NUISANCE FROM MUSIC

Western Mansions, Ltd., v. Foster.—King's Bench Division. Before Mr. Justice Branson.

THIS was an action by Western Mansions, Ltd., against Mr. G. Foster, to recover the sum of £81 odd, being a quarter's rent of a flat at Ridgmount Gardens, St. Pancras, due December 25, 1931. Defendant held a lease of his flat, and he admitted the claim. He set up a counter-claim for damages for alleged breach of covenant in his lease of quiet enjoyment, alleging that he had been compelled to leave his flat in consequence of successive musical and other noises coming from the flat above.

Mr. Morle, counsel for the defendant, said there was a rule that no piano or other musical instrument should be used between midnight and eight in the morning, but his client's contention was that there was such an abominable nuisance from the flat above that he was compelled to leave in September, 1931. The noises complained of were caused by a jazz band, singing, a gramophone with loud speaker, and dancing and skipping. Complaint had been made, but his client's view was that no effectual steps had been taken to abate the nuisance.

Defendant gave evidence, and said yelling and shrieking came from the flat above, and as he could not get sleep, he left the flat.

Mr. Cyril Atkinson, K.C., said his clients had taken all possible steps to prevent the nuisance complained of. An action had been brought against the tenant of the flat above, and she had given an undertaking to abate the noise. He was instructed that the flats had concrete floors, and were among the best sound-proof flats in London. His contention was that the complaints were exaggerated.

His Lordship, in giving judgment, said he was satisfied that the complaints by the defendant and his wife were greatly exaggerated, and he gave judgment for the plaintiffs on the claim and counter-claim with costs. In his opinion the defendant, so far as he depended upon a breach of covenant for quiet enjoyment, failed, because there was no suggestion that there had been any disturbance of a physical character. In his view the landlords had taken every step they could to prevent a repetition of the breach by their tenant.

TRADE NOTES

Messrs. F. McNeill & Co., Ltd. who are now celebrating their Centenary, have an interesting exhibit at the Building Centre, New Bond Street, W.1. This Exhibit shows a section of a built up roof constructed of pure bitumen, sheet asphalt, rock pumice (rendered in cement) with waterproof expansion joints.

It is claimed that this roof, for which provisional patents have been obtained, is waterproof, fireproof, soundproof and prevents condensation. Further, it is claimed that it is unaffected by extremes of temperature, cannot crack or leak, and is superior to asphalt, lead or zinc. This roof carries with it a guarantee for a long term of years. It is laid by McNeill's in the Greater London Area at a cost of approximately 14s. per square yard.

The Merchant Trading Co., Ltd., have removed from their Bishopsgate offices to Columbia House, Aldwych, London, W.C.2. (Telephone No. Holborn 3291.) With their showroom at 36 Newman Street, W.1, their organization will be conveniently situated and easily accessible in the west end of London. All modern office equipment will be used in the new premises, which are compact and spacious and cover an additional 1,000 feet of floor space to those at present occupied by the company.

One of the stages of the firm's progressive policy, which is framed to permit of immediate expansion of their activities as soon as general conditions show signs of improvement, provides for the marketing of several new British-made products of the types and in the fields with which the company have been long associated.

Messrs. Holophane, Ltd., inform us that the Holophane Ripple-Lite units have been installed for the lighting of the offices of the Midland Counties Mutual Benefit Society at Dudley; also for the new George Hotel at Wolverhampton for the Wolverhampton Breweries.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The EDMONTON U.D.C. has approved plans, submitted by Mr. C. A. Aish, for the erection of a cinema in Silver Street, at the corner of Fore Street.

Plans passed at EDMONTON : Houses (amended plan), Church Street Estate, for Messrs. Swannell and Sly ; dairy, Oakthorpe Estate, for the London Co-operative Society ; additions to factory, 258 Fore Street, for Messrs. R. S. Lawrence & Co. ; eight houses, Sandal Road, for Mr. G. W. Newman ; factory, Abbey Road, for Mr. J. Neilson ; store, Commercial Road, for Mr. F. J. Baxter ; four houses, Ridge Avenue, for Mr. J. A. Quelsh ; factory, Pretoria Road, for Messrs. Commercial Structures, Ltd. ; 83 houses, Cambridge Arterial Road, Kendal Avenue and Kendal Gardens and 47 houses, Cambridge Road, by Weir Hall, for Mr. G. W. Newman ; house, Cambridge Road, for Messrs. R. F. Peachey and Sons ; three houses, Dysons Road, for Messrs. Swannell and Sly ; workshop, rear 66 Gilpin Grove, for Mr. A. G. Bagging ; two houses and shops, Dysons Road, for Mr. Gregory ; houses, York Road, for Mr. C. A. Hannaford.

Plans passed by the ILFORD Corporation : 14 houses, South Park Drive, and two houses, Mortlake Road, for Messrs. E. Glenny and Son ; nine houses, Avenue Gardens, six houses, Sunnymede Drive, 80 houses, Royston Gardens, 24 shops and dwellings, Royston Parade, 19 shops, Seven Ways Parade, and 30 garages, Royston Gardens, for Mr. J. Aldridge ; five bungalows, Shirley Terrace, for Mr. F. Smith ; 11 houses, Falmouth Gardens, four houses, Mordon Road, and six shops, Darwen Parade, for Mr. G. F. Seigerts ; 28 houses, Birch Grove, 14 bungalows, Lime Grove, and 12 bungalows, Chestnut Grove, for Mr. C. Fryatt ; 25 houses, Ena Road, four houses, Arthur Road, for Mr. P. G. Ashton ; nine houses, Flora Gardens, 16 houses, Roxy Avenue, and 27 houses, Primrose Avenue, for Mr. P. Triplete ; bank premises, Goodmayes Road, for Mr. G. Coles ; four houses, Vaughan Gardens, seven houses, Edwin Gardens, two houses, Mansfield Road, extension to factory of Ilford Electrical Co., Roden Street, and 12 houses, Ridgway Gardens, for Mr. T. Anders ; 10 houses, Vista Drive, for Mr. P. G. Lees ; eight houses, Fencepiece Road, for Mr. G. W. Offord ; two bungalows, Roding Road, for Mr. W. M. Edwards ; 20 houses, Wanstead Lane, and four houses, Canterbury Avenue, for Mr. A. P. Griggs ; three houses, Cross Road, for Mr. S. W. Stedman ; four houses, Westrow Gardens, for Messrs. J. W. Moore and Son, Ltd. ; four houses, Silverton Gardens, for Mr. F. S. Russell ; factory extension, Grove Road, for United Ebonite, Ltd. ; six houses, Perrymans Farm Road, and seven houses, Lynn Road, for Messrs. Haines and Warwick, Ltd. ; 19 houses, Thornton Road, for Mr. W. L. Thompson ; four houses, Donnington Avenue, for Messrs. Goodchild & Co. ; four bungalows, Oaks Lane, for Mr. G. Giles ; four houses, Donaldson Gardens, for Mr. L. Stock.

Plans passed by the POPLAR B.C. : Additions, 8 Wellington Road, for Mr. D. H. Clauson ; additions, 201–5 Bow Road, for Messrs. Wood Bros., Ltd. ; additions, Yabsley Street, for Mr. J. E. Beaumont ; factory, Old Ford Road, for Mr. H. V. Kerr ; three houses, Douro Street, for Mr. R. S. Andrews.

Plans passed at PURLEY : Two houses, Downlands Road, for Mr. R. L. Luke ; house, Hartley Down, for Mr. R. A. Bayley ; two houses, Sydney Avenue, for Messrs. F. W. Rees and Partners ; bungalow, Downscourt Road, for Mr. J. W. Goodrich.

Plans passed by the TEDDINGTON U.D.C. : three houses, Homesdale Road, and three in Munster Road, for Mr. F. J. P. Disney ; conversion old cottage hospital, Elfin Grove, to flats for Captain C. F. Hobday ; mortuary, Memorial Hospital, for governors.

SOUTHERN COUNTIES

The EASTBOURNE Corporation is seeking sanction to borrow £21,845 for the erection of houses for the working classes.

Plans passed at EASTBOURNE : House, Upland Road, for Mr. A. E. Hill ; place for Messrs. Titcombs ; alterations and additions, "The Crown Inn," Crown Street, for Messrs. E. H. and H. V. Fuller ; conversion into four flats, 51, Blackwater Road, for Mr. A. Ford ; three houses, Longland Road, for Mr. A. J. Fellows ; two houses, Horsey Bank Road, for Mr. F. C. Benz ; two houses, Harding Avenue, for Mr. F. C. Benz ; two houses, Moy Avenue, for Mr. A. Ford ; house, Decoy Drive, for Mr. R. H. Clucas ; alterations, Fishermen's Institute, Royal Parade, for Mr. A. Ford ; stores, rear of Chamberlain Road, for Mr. C. M. Wood ; additions, Tor View Hotel, 27, Jevington Gardens, for Mr. A. Ford.

Plans passed at GILLINGHAM : Four houses, London Road, for Mr. F. T. Mattocks ; two houses, Barnsole Road, for Mr. G. H. Ward ; house, Bredhurst Road, for Mr. W. H. Cook ; shop and office, Beresford Road, for Mr. H. R. Richardson ; two houses, Maidstone Road, for Messrs. Mitchells, ; house, Albany Road, for Mr. F. T. Mattocks ; 11 houses, Herbert Road, Rainham, for Mr. T. Ballard ; shop, King Street, for Gillingham Co-operative Society, Ltd.

SOUTH-WESTERN COUNTIES

Plans passed at CHELTENHAM : House, Arle Road, for Mrs. G. Barnham ; house, Naunton Lane, for Mr. T. W. Smith ; additions and alterations, Carr's Hotel, Clarence Street, for Mrs. S. G. Clevely ; four houses, Exmouth Street, for Mr. C. H. Reason.

EASTERN COUNTIES

Messrs. Christy Bros. & Co., Ltd., are to reconstruct and extend their premises in King's Road, CHELMSFORD.

Plans passed by the CHELMSFORD Corporation : Four houses, Kingstons Estate, for Mr. J. Gowers ; poultry market extension, Market Road, for Messrs. Darby & Co. ; 28 memorial homes, off Broomfield Road, for Mr. A. E. Wiseman, on behalf of Keene trustees ; five houses, St. John's Road, for Mr. A. J. Gozzett ; 12 houses, St. John's Avenue, for Mr. W. J. Aldred.

The COLCHESTER Education Committee has appointed Messrs. Duncan, Clark and Beckett to prepare plans for the erection of a school for infants and juniors on the Harwich Road site.

The COLCHESTER Corporation has approved a revised scheme for the provision of slipper baths in Culver Street, at a cost of £7,558.

The FRIERN BARNET U.D.C. is seeking sanction to borrow £18,400 for the erection of 56 flats on the council estate.

The Essex Education Committee is acquiring two sites on the Gaynes Park estate, UPMINSTER, for the erection of a junior school and senior school.

The Herts C.C. is now to proceed with the extension at the Western House Institution, WARE, at a cost of £33,965, from plans prepared by Mr. C. Ernest Elcock.

MIDLAND COUNTIES

The COVENTRY Education Committee is to purchase a site at Wyken for the erection of an elementary school.

Plans passed by KIDDERMINSTER Corporation : two houses, Highfield Road, for Mr. J. H. Smith ; eight houses, Hoo Road, and conversion of vicarage, Hoo Road, to three houses, for Mr. G. Williams ; house, Beauchamp Avenue, for Mr. J. H. Moule ; two houses, St. John's Avenue, for Mr. A. V. Bent ; four houses, Turton Street, for Mr. P. J. Hall ; shop, High Street, for Messrs. Marks and Spencer, Ltd. ; two houses, Highfield Road, for Messrs. F. Hughes and Sons ; three houses, off Sutton Park Road, for Messrs. Lacy Bros. ; two houses, Bewdley Hill, for Mr. G. Thomas ; house, St. John's Avenue, for Mr. J. Andrews ; four houses, Habberley Lane, for Mr. A. W. Davis.

The NORTHAMPTON Corporation recommends a modified scheme for the provision of baths. The architects are Messrs. J. C. Prestwich and Sons, whose selected competitive design is estimated to cost £111,288.

Plans passed by the SMETHWICK Corporation : Alterations, Red Cow Inn, High Street, for Ansells Brewery, Ltd. ; garage extension, Oldbury Road, for Roebuck Engineering Co. ; amended plan of gallery at Rink Market, for Mr. B. Babington ; house, Green Street, for Mr. G. Cross ; factory extension, Bearwood Road, for Manus Manufacturing Co. ; conversion, Tweedale, North Street, to tenements, for Messrs. Stubbs Bros.

NORTHERN COUNTIES

The HULL Corporation has approved plans for the erection of 60 cottage flats in Barnsley Street.

The HULL Corporation is to proceed with the enlargement of the Keldgate reservoir.

The HULL Corporation Baths Committee is considering sites suggested in the eastern area for the erection of wash-houses.

The HULL Corporation is to provide accommodation for mental defectives at the new male colony, Winestead, at a cost of £40,000.

The HULL Corporation has agreed upon a scheme for extensions at the Tilworth Grange institution at a cost of £13,300.

Plans passed by the ILKESTON Corporation : House, off Longfield Lane, for Mr. W. Youngman ; houses, Stanton Road, for Mrs. A. King ; factory extensions, Awsworth Road, for Messrs. A. Booth and Sons ; house, Kingsway, for Mr. H. Hayes ; four houses, off Park Road, for Mr. A. Beards.

Plans passed at KEIGHLEY : House, Airedale Road, for Mr. John Sugden ; nine houses, South Street, for Mr. James Wharton ; five houses, Aireworth Grove, for the Aireworth Park Estate Co., Ltd. ; five houses, West Lane, for Messrs. Waterhouse and Pickles.

The LEEDS Corporation has voted £52,400 for the erection of 194 houses on the Torre housing estate.

The LEEDS Corporation has passed plans, submitted by Mr. Albert Cansfield, for the erection of a cinema at the junction of Montreal Avenue and Church Lane.

Messrs. John Smith's Tadcaster Brewery Co., Ltd., is to re-erect the White Horse Inn on a new site in the vicinity of Low Road, LEEDS.

Plans passed by the MORECAMBE Corporation : Two houses, Burlington Avenue, for Messrs. Edmondson Bros. (Morecambe), Ltd. ; six houses, Lathon Avenue, for Messrs. J. and B. Whittaker ; four houses, South Grove, for Mr. J. W. Shuttleworth ; two houses, Fairfield Road, for Messrs. Swithenbank and Ladell ; 34 houses, Westgate estate, for Messrs. Brook and Kershaw ; kennels, etc., Westgate Sports Stadium, for Mr. W. S. Spencer ; two houses, Twemlow Parade, for Mr. A. Barker ; two houses, Out Moss Lane, for Mr. A. Harris ; seven houses, Endcliffe Road, for Mr. A. Elkin ; 12 houses, Tranmere Park estate, for Mr. F. Obank ; two bungalows, Thorpe Avenue, for Mr. G. Jackson ; alterations Hall, Moss Lane, for Salvation Army ; two bungalows, Albert Road, for Miss E. Taylor.

MISCELLANEOUS

The GLASGOW Corporation is to purchase 45 acres of land at Low Balornock, for the erection of houses of the intermediate and re-housing type. ◄

The Possilpark and Springburn Greyhound Racing Co. is to lay out a greyhound racing track at Hawthorn Street, GLASGOW.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5½	1 1¼
A_1	Abergavenny ..	S. Wales & M.	1 5½	1 1¼
A_3	Abingdon ..	S. Counties	1 4½	1 0½
A	Accrington ..	N.W. Counties	1 6	1 1½
A_3	Addlestone ..	S. Counties	1 4½	1 0½
A	Adlington ..	N.W. Counties	1 6	1 1½
A	Airdrie ..	Scotland	*1 6	1 1½
C	Aldeburgh ..	E. Counties	1 2	10½
A	Altrincham ..	N.W. Counties	1 6	1 1½
B_3	Appleby ..	N.W. Counties	1 2½	11
A	Ashton-under-Lyne	N.W. Counties	1 6	1 1½
A_3	Atherstone ..	Mid. Counties	1 4½	1 0½
B_2	Aylesbury ..	S. Counties	1 3	11½
B_1	BANBURY ..	S. Counties	1 3½	11¾
B_1	Bangor ..	N.W. Counties	1 3½	11¾
A_3	Barnard Castle	N.E. Coast	1 4½	1 0½
A	Barnsley ..	Yorkshire	1 6	1 1½
B	Barnstaple ..	S.W. Counties	1 4	1 0
A	Barrow ..	N.W. Counties	1 6	1 1½
A	Barry ..	S. Wales & M.	1 6	1 1½
B_1	Basingstoke ..	S.W. Counties	1 3½	11¾
A_3	Bath	S.W. Counties	1 4½	1 0½
A	Batley ..	Yorkshire	1 6	1 1½
A_3	Bedford ..	E. Counties	1 4½	1 0½
A_2	Berwick-on-Tweed	N.E. Coast	1 5	1 0¾
A_2	Bewdley ..	Mid. Counties	1 5	1 0¾
B_3	Bicester ..	S. Counties	1 2½	11
	Birkenhead ..	N.W. Counties	*1 7½	1 2¾
A	Birmingham ..	Mid. Counties	1 6	1 1½
A_1	Bishop Auckland	N.E. Coast	1 5½	1 1¼
A	Blackburn ..	N.W. Counties	1 6	1 1½
A	Blackpool ..	N.W. Counties	1 6	1 1½
A	Blyth	N.E. Coast	1 6	1 1½
B_2	Bognor ..	S. Counties	1 3	11½
A	Bolton ..	N.W. Counties	1 6	1 1½
A_3	Boston	Mid. Counties	1 4½	1 0½
A_3	Bournemouth ..	S. Counties	1 4½	1 0½
B_2	Bovey Tracey	S.W. Counties	1 3	11½
A	Bradford ..	Yorkshire	1 6	1 1½
A_2	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 6	1 1½
B_1	Bridgwater ..	S.W. Counties	1 3½	11¾
A_1	Bridlington ..	Yorkshire	1 5½	1 1¼
A	Brighouse ..	Yorkshire	1 6	1 1½
A_3	Brighton ..	S. Counties	1 4½	1 0½
A	Bristol ..	S.W. Counties	1 6	1 1½
B_3	Brixham ..	S.W. Counties	1 2½	11
A_2	Bromsgrove ..	Mid. Counties	1 5	1 0¾
C	Bromyard ..	Mid. Counties	1 2	10½
A	Burnley ..	N.W. Counties	1 6	1 1½
A	Burslem ..	Mid. Counties	1 6	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½
A	Bury	N.W. Counties	1 6	1 1½
A_1	Buxton ..	N.W. Counties	1 5½	1 1¼
A_2	CAMBRIDGE	E. Counties	1 5	1 1¾
B_2	Canterbury ..	S. Counties	1 3	11½
A	Cardiff ..	S. Wales & M.	1 6	1 1½
A	Carlisle ..	N.W. Counties	1 6	1 1½
B	Carmarthen ..	S. Wales & M.	1 4	1 0
B	Carnarvon ..	N.W. Counties	1 4	1 0
A	Carnforth ..	N.W. Counties	1 6	1 1½
A	Castleford ..	Yorkshire	1 6	1 1½
B	Chatham ..	S. Counties	1 4	1 0
B	Chelmsford ..	E. Counties	1 4	1 0
A_3	Cheltenham ..	S.W. Counties	1 4½	1 0½
A	Chester ..	N.W. Counties	1 6	1 1½
A	Chesterfield ..	Mid. Counties	1 6	1 1½
B_2	Chichester ..	S. Counties	1 3	11½
A	Chorley ..	N.W. Counties	1 6	1 1½
B_2	Cirencester ..	S. Counties	1 3	11½
A	Clitheroe ..	N.W. Counties	1 6	1 1½
A	Clydebank ..	Scotland	1 6	1 1½
A	Coalville ..	Mid. Counties	1 6	1 1½
A_3	Colchester ..	E. Counties	1 4½	1 0½
A	Colne	N.W. Counties	1 6	1 1
A_2	Colwyn Bay ..	N.W. Counties	1 5	1 0¾
A_1	Consett ..	N.E. Coast	1 5½	1 1¼
A_2	Conway ..	N.W. Counties	1 5	1 0¾
A	Coventry ..	Mid. Counties	1 6	1 1½
A_2	Crewe ..	N.W. Counties	1 5	1 0¾
A_3	Cumberland ..	N.W. Counties	1 4½	1 0½
A	DARLINGTON	N.E. Coast	1 6	1 1½
A	Darwen ..	N.W. Counties	1 6	1 1½
B_2	Deal	S. Counties	1 3	11½
A_3	Denbigh ..	N.W. Counties	1 4½	1 0½
A	Derby	Mid. Counties	1 6	1 1½
A	Dewsbury ..	Yorkshire	1 6	1 1½
B	Didcot ..	S. Counties	1 4	1 0
A	Doncaster ..	Yorkshire	1 6	1 1½
B_2	Dorchester ..	S.W. Counties	1 3	11½
A_3	Driffield ..	Yorkshire	1 4½	1 0½
A_2	Droitwich ..	Mid. Counties	1 5	1 0¾
A	Dudley ..	Mid. Counties	1 6	1 1½
A	Dundee ..	Scotland	1 6	1 1½
A	Durham ..	N.E. Coast	1 6	1 1½
A_3	EASTBOURNE	S. Counties	1 4½	1 0½
A_1	Ebbw Vale ..	S. Wales & M.	1 5½	1 1¼
A	Edinburgh ..	Scotland	1 6	1 1½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5½	1 1¼
A_2	Exeter ..	S.W. Counties	*1 5	1 0¾
B_1	Exmouth ..	S.W. Counties	1 3½	11¾
A_3	FELIXSTOWE	E. Counties	1 4½	1 0½
A_3	Filey	Yorkshire	1 4½	1 0½
A	Fleetwood ..	N.W. Counties	1 6	1 1½
B_2	Folkestone ..	S. Counties	1 3	11½
A	Frodsham ..	N.W. Counties	1 6	1 1½
B_2	Frome ..	S.W. Counties	1 3	11½
A	GATESHEAD	N.E. Coast	1 6	1 1½
B	Gillingham ..	S. Counties	1 4	1 0
A_2	Gloucester ..	S.W. Counties	1 5	1 0¾
A_2	Goole	Yorkshire	1 5	1 0¾
A_3	Gosport ..	S. Counties	1 4½	1 0½
A_3	Grantham ..	Mid. Counties	1 4½	1 0½
A_1	Gravesend ..	S. Counties	1 5½	1 1¼
A	Greenock ..	Scotland	*1 6	1 1½
A	Grimsby ..	Yorkshire	1 6	1 1½
B_1	Guildford ..	S. Counties	1 3½	11¾
A	HALIFAX ..	Yorkshire	1 6	1 1½
A	Hanley ..	Mid. Counties	1 6	1 1½
A	Harrogate ..	Yorkshire	1 6	1 1½
A	Hartlepools ..	N.E. Coast	1 6	1 1½
B	Harwich ..	E. Counties	1 4	1 0
B_2	Hastings ..	S. Counties	1 3	11½
A_3	Hatfield ..	S. Counties	1 4½	1 0½
B	Hereford ..	S.W. Counties	1 4	1 0
A_3	Hertford ..	E. Counties	1 4½	1 0½
A	Heysham ..	N.W. Counties	1 6	1 1½
A	Howden ..	N.E. Coast	1 6	1 1½
A	Huddersfield ..	Yorkshire	1 6	1 1½
A	Hull	Yorkshire	1 6	1 1½
A	ILKLEY ..	Yorkshire	1 6	1 1½
A	Immingham ..	Mid. Counties	1 6	1 1½
A_3	Ipswich ..	E. Counties	1 4½	1 0½
B_3	Isle of Wight ..	S. Counties	1 2½	11
A	JARROW ..	N.E. Coast	1 6	1 1½
A	KEIGHLEY ..	Yorkshire	1 6	1 1½
B	Kendal ..	N.W. Counties	1 4	1 0
B	Keswick ..	N.W. Counties	1 4	1 0
A_2	Kettering ..	Mid. Counties	1 5	1 0¾
A_2	Kidderminster	Mid. Counties	1 5	1 0¾
B_2	King's Lynn ..	E. Counties	1 3	11½
A	LANCASTER ..	N.W. Counties	1 6	1 1½
A_2	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 6	1 1½
A	Leek	Mid. Counties	1 6	1 1½
A	Leicester ..	Mid. Counties	1 6	1 1½
A	Leigh	N.W. Counties	1 6	1 1½
B_3	Lewes	S. Counties	1 2½	11
A_2	Lichfield ..	Mid. Counties	1 5	1 0¾
A	Lincoln ..	Mid. Counties	1 6	1 1½
	Liverpool ..	N.W. Counties	*1 7½	1 2¾
A_2	Llandudno ..	N.W. Counties	1 5	1 0¾
A	Llanelly ..	S. Wales & M.	1 6	1 1½
	London (12-miles radius)		1 7½	1 2¾
	Do. (12-15 miles radius)		1 7	1 2½
A	Long Eaton ..	Mid. Counties	1 6	1 1½
A	Loughborough	Mid. Counties	1 6	1 1½
A_3	Luton	E. Counties	1 4½	1 0½
A	Lytham ..	N.W. Counties	1 6	1 1½
A_1	MACCLESFIELD	N.W. Counties	1 5½	1 1¼
B	Maidstone ..	S. Counties	1 4	1 0
A_3	Malvern ..	Mid. Counties	1 4½	1 0½
A	Manchester ..	N.W. Counties	1 6	1 1½
A	Mansfield ..	Mid. Counties	1 6	1 1½
B_1	Margate ..	S. Counties	1 3½	11¾
A_3	Matlock ..	Mid. Counties	1 4½	1 0½
A_1	Merthyr ..	S. Wales & M.	1 5½	1 1¼
A	Middlesbrough	N.E. Coast	1 6	1 1½
A_2	Middlewich ..	N.W. Counties	1 5	1 0¾
B_2	Minehead ..	S.W. Counties	1 3	11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3	11½
A	Morecambe ..	N.W. Counties	1 6	1 1½
A_2	NANTWICH ..	N.W. Counties	1 5	1 0¾
A	Neath	S. Wales & M.	1 6	1 1½
A	Nelson ..	N.W. Counties	1 6	1 1½
A	Newcastle ..	N.E. Coast	1 6	1 1½
A	Newport ..	S. Wales & M.	1 6	1 1½
A	Normanton ..	Yorkshire	1 6	1 1½
A_1	Northampton	Mid. Counties	1 5½	1 1¼
A	North Staffs. ..	Mid. Counties	1 6	1 1½
A	North Shields ..	N.E. Coast	1 6	1 1½
A_2	Norwich ..	E. Counties	1 5	1 0¾
A	Nottingham ..	Mid. Counties	1 6	1 1½
A	Nuneaton ..	Mid. Counties	1 6	1 1½
A_3	OAKHAM ..	Mid. Counties	1 4½	1 0½
A	Oldham ..	N.W. Counties	1 6	1 1½
A_3	Oswestry ..	N.W. Counties	1 4½	1 0½
A_2	Oxford ..	S. Counties	1 5	1 0¾
A	PAISLEY ..	Scotland	*1 6	1 1½
B_3	Pembroke ..	S. Wales & M.	1 2½	11
A	Perth	Scotland	*1 6	1 1½
A_2	Peterborough	E. Counties	1 5	1 0¾
A	Plymouth ..	S.W. Counties	*1 6	1 1½
A	Pontefract ..	Yorkshire	1 6	1 1½
A_1	Pontypridd ..	S. Wales & M.	1 5½	1 1¼
A_3	Portsmouth ..	S. Counties	1 4½	1 0½
A	Preston ..	N.W. Counties	1 6	1 1½
A	QUEENSFERRY	N.W. Counties	1 6	1 1½
A_2	READING ..	S. Counties	1 5	1 0¾
B	Reigate ..	S. Counties	1 4	1 0
A_3	Retford ..	Mid. Counties	1 4½	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 5½	1 1¼
A_3	Ripon	Yorkshire	1 4½	1 0½
A	Rochdale ..	N.W. Counties	1 6	1 1½
B	Rochester ..	S. Counties	1 4	1 0
A_1	Ruabon ..	N.W. Counties	1 5½	1 1¼
A	Rugby ..	Mid. Counties	1 6	1 1½
A_3	Rugeley ..	Mid. Counties	1 4½	1 0½
A	Runcorn ..	N.W. Counties	1 6	1 1½
A_2	ST. ALBANS ..	E. Counties	1 5	1 0¾
A	St. Helens ..	N.W. Counties	1 6	1 1½
B_3	Salisbury ..	S.W. Counties	1 2½	11
A_1	Scarborough ..	Yorkshire	1 5½	1 1¼
A	Scunthorpe ..	Mid. Counties	1 6	1 1½
A	Sheffield ..	Yorkshire	1 6	1 1½
A	Shipley ..	Yorkshire	1 6	1 1½
A_2	Shrewsbury ..	Mid. Counties	1 5	1 0¾
A_2	Skipton ..	Yorkshire	1 5	1 0¾
A_3	Slough ..	S. Counties	1 4½	1 0½
A_2	Solihull ..	Mid. Counties	1 5	1 0¾
A_2	Southampton	S. Counties	1 5	1 0¾
A_2	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport ..	N.W. Counties	1 6	1 1½
A	S. Shields ..	N.E. Coast	1 6	1 1½
A_2	Stafford ..	Mid. Counties	1 5	1 0¾
A	Stockport ..	N.W. Counties	1 6	1 1½
A	Stockton-on-Tees	N.E. Coast	1 6	1 1½
A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
B	Stroud ..	S.W. Counties	1 4	1 0
A	Sunderland ..	N.E. Coast	1 6	1 1½
A	Swadlincote ..	Mid. Counties	1 6	1 1½
A	Swansea ..	S. Wales & M.	1 6	1 1½
A_3	Swindon ..	S.W. Counties	1 4½	1 0½
A_1	TAMWORTH	N.W. Counties	1 5½	1 1¼
B	Taunton ..	S.W. Counties	1 4	1 0
A	Teesside Dist...	N.E. Counties	1 6	1 1½
A_3	Teignmouth ..	S.W. Coast	1 4½	1 0½
A	Todmorden ..	Yorkshire	1 6	1 1½
A_1	Torquay ..	S.W. Counties	1 5½	1 1¼
C	Truro	S.W. Counties	1 2	10½
B	Tunbridge Wells ..	S. Counties	1 4	1 0
A	Tunstall ..	Mid. Counties	1 6	1 1½
A	Tyne District	N.E. Coast	1 6	1 1½
A	WAKEFIELD	Yorkshire	1 6	1 1½
A	Walsall ..	Mid. Counties	1 6	1 1½
A	Warrington ..	N.W. Counties	1 6	1 1½
A_2	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 5	1 0¾
A	West Bromwich	Mid. Counties	1 6	1 1½
A_2	Weston-s.-Mare	W. Counties	1 5	1 0¾
A_2	Whitby ..	Yorkshire	1 5	1 0¾
A	Widnes ..	N.W. Counties	1 6	1 1½
A	Wigan ..	N.W. Counties	1 6	1 1½
B_1	Winchester ..	S. Counties	1 3½	11¾
A_3	Windsor ..	S. Counties	1 4½	1 0½
A	Wolverhampton	Mid. Counties	1 6	1 1½
A_2	Worcester ..	Mid. Counties	1 5	1 0¾
A_3	Worksop ..	Yorkshire	1 4½	1 0½
A_1	Wrexham ..	N.W. Counties	1 5½	1 1¼
A_3	Wycombe ..	S. Counties	1 4½	1 0½
B_1	YARMOUTH ..	E. Counties	1 3½	11¾
B_1	Yeovil ..	S.W. Counties	1 3½	11¾
A	York	Yorkshire	1 6	1 1½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7½
Carpenter	,,		1	7½
Joiner	,,		1	7½
Machinist	,,		1	8½
Mason (Banker)	,,		1	7½
,, (Fixer)	,,		1	8½
Plumber	,,		1	7½
Painter	,,		1	7½
Paperhanger	,,		1	9½
Glazier	,,		1	7½
Slater	,,		1	7½
Scaffolder	,,		1	3½
Timberman	,,		1	3½
Navvy	,,		1	2¾
General Labourer	,,		1	2¾
Lorryman	,,		1	5
Crane Driver	,,		1	6½
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ½"	,,		14	0
,, ⅝"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'–14' long, per ft.run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			3¾
,, ,, 26 oz. ,, ,, ,,	,,			4½
Arctic glass, white	,,			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,			6½
¼" Hartley's rough rolled	,,			7
¼" ,, wired cast	,,			10
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†7½	to	‡1 0
,, ,, 2	,,	†10	,,	‡1 3½
,, ,, 3	,,	†1 4½	,,	‡1 10
,, ,, 4	,,	†1 11	,,	‡2 4
,, ,, 6	,,	†2 3	,,	‡2 7½
,, ,, 8	,,	†2 5	,,	‡3 0½
,, ,, 12	,,	†2 10	,,	‡3 3½
,, ,, 20	,,	†3 3½	,,	†3 9
,, ,, 45	,,	†3 6½	,,	‡4 0½
,, ,, 65	,,	†3 11½	,,	‡4 4
,, ,, 90	,,	†4 4	,,	‡4 9
,, ,, 100	,,	†4 6	,,	‡4 11
Vita glass, sheet, n/e 1 ft.	,,			1 0
,, ,, ,, 2	,,			1 3
,, ,, ,, over 2	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2	,,			3 0
,, ,, ,, 5	,,			4 0
,, ,, ,, 7	,,			5 0
,, ,, ,, 15	,,			6 0
,, ,, ,, over 15	,,			7 6
Putty, linseed oil	lb.			3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay add	,,		3	0
If in underpinning ,,	,,		5	0
Digging, return, fill and ram ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1½" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	6	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
¾" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

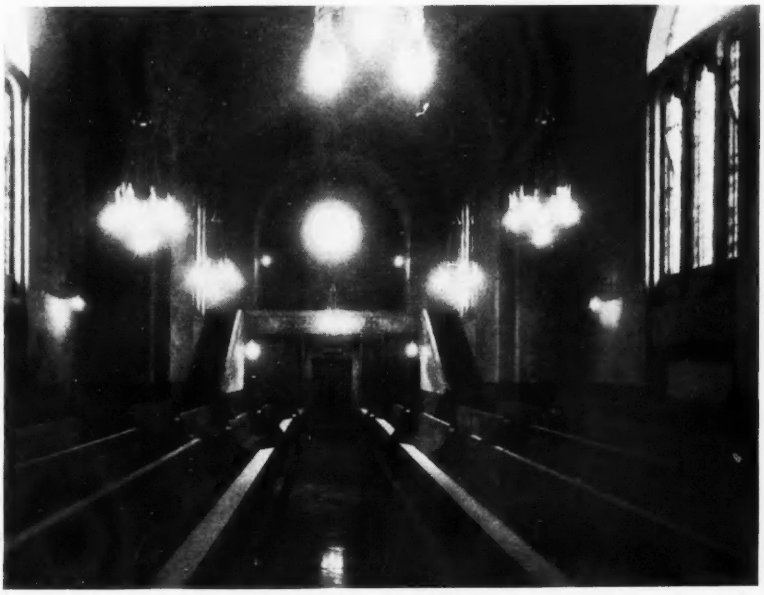
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	,,		10½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	,,	2	9

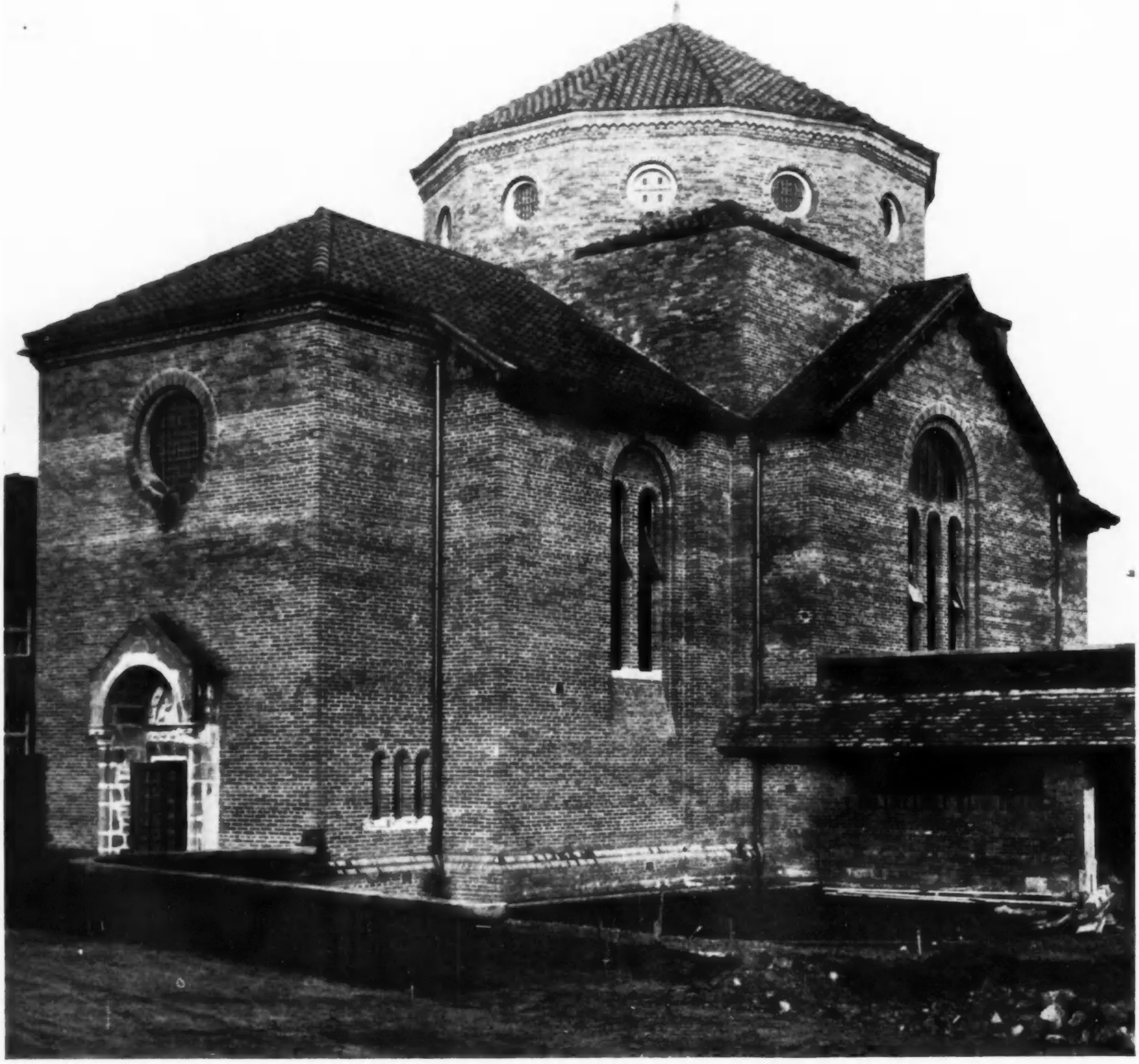
LADY MARGARET HALL, OXFORD

NEW CHAPEL BY SIR GILES GILBERT SCOTT



ON Saturday the new Chapel illustrated above and overleaf was dedicated by Bishop Talbot, who played the leading part in founding Lady Margaret Hall, Oxford, in 1878. Sir Giles Gilbert Scott, R.A., in designing the Chapel, which is adjacent to his new block of buildings, and supplies them with a focal point of interest, has found inspiration in the Byzantine tradition. The building is planned as a Greek cross, and has a domed apse behind the altar at the east end, shallow transepts and a barrel roof.

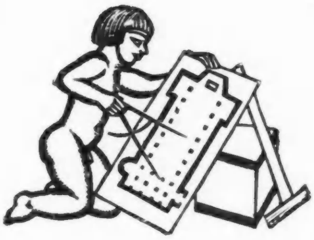
The main entrance is at the west end, shown above, through a small ante-chapel, with organ and choir gallery over. The flights of stairs leading up to this from the floor of the Chapel enclose stalls for the Principal and Fellows. The internal surface of the walls is finished in rough plaster, stone-coloured ; the flooring is of brown marbles ; the oak seats are arranged longitudinally.



NEW CHAPEL AT LADY MARGARET HALL, OXFORD

Designed by
Sir Giles Gilbert Scott, R.A.

The walls of the chapel are built of rich red-brown bricks, and the central dome and the roofs are covered with red Lombardy tiles. The main entrance from Benson Place, shown in the above view, has a stone portal, surmounted with a carved tympanum. On the south side (to the right) is a vaulted corridor connecting with the new Deneke Building of the college; in this corridor it is intended to place memorials to former members of the Hall.



FINANCING RECONSTRUCTION

Loans for building material up to 2,500 marks (£180) are granted by the Land Bank at 5%, including sinking fund, with the exception of the first two years, when they are at 2%. In addition, the city of Stuttgart grants loans up to 300 marks (£21) for each house, and the labour of the future owners is assessed at 200 marks (£14), bringing the total value of the house to 3,000 marks (£215) . . . The total charge to each tenant for his house and 800 sq. metres of land is less than 20 marks (30s.) per month, which, in comparison with 40 marks (£3), the average monthly rental paid by the same families for city tenements, shows a substantial saving.

From the report of the American Consul at Stuttgart on suburban settlements for unemployed on the outskirts of that city.

RECONSTRUCTION on a national scale was the goal kept in view in last week's special New Year issue; movement towards it, like any other movement, necessarily involves finance—and on a scale equally national. The brains to plan our industrial revival are immediately available; have we the money to render them mobile? There is no question of it, but at the moment it is in cold storage.

For the balance sheets issued by our joint stock banks show a very large increase in deposits and a shrinkage in advances to industry, while the increased funds available have been almost entirely devoted to the purchase of Government securities and Treasury Bills. The banks during 1932 have not only done their best to cut down legitimate industrial enterprise as part of the great principle of *economy*, but they have immobilized a very considerable proportion of the national savings in Government securities which have not had any real influence on the volume of credit available for economic activity in the country.

In other words, the joint stock banks have been engaged in hoarding on an immense scale; and in this they have been imitated by the public, who have preferred to keep their funds immediately available, even if they earn practically nothing.

Now, this situation is one which is not only critical in itself but constitutes a vital part of the problem which must be solved if any revival is to take place. In any event this enormous accumulation of funds is bound to find some outlet; and that outlet, we repeat, should be offered in the work of national reconstruction. The Building Industry has an opportunity which may not easily recur for stimulating new enterprise in directions which will be immediately beneficial to the country and will have a permanent influence in raising our whole standard of economic and social welfare.

From time to time proposals have been put forward for the financing of new construction, the majority of which appear too good to be true; nevertheless, we submit that the present financial system does lend itself easily to the financing of new construction, provided the proper direction is given to investment and some control exerted over the volume and yield of such investment. There is a danger of confusing immediate purchasing power, as represented by credits and currency necessary to the ordinary processes of production, consumption and exchange, with long-term finance, which should be devoted to the creation of durable consumption goods or capital equipment, as represented by houses, factories, schools, roads, public utilities, transport and the heavy industries.

There is no shortage of finance available for new enterprise, and there is probably a real desire on the part of the investing public to take funds out of unprofitable bank deposits and put them to work again, but the influence of *economy* as dictated by the Government and translated into practice by local authorities, has choked up many possibilities of proper disposal of the national savings.

Now, the Building Industry, through concerted effort, can do three things:—

I. It can concentrate adverse criticism on the Ministry of Health and on the Government until they abandon their wholly stupid and dangerous *economy* policy. A good opportunity for such criticism will undoubtedly be afforded by the budget, which will prove beyond all doubt that increased taxation is impossible with a deliberate policy of reduction in the national income, such reduction being caused by cessation of public construction.

II. It can use its influence to make the local authorities adopt a more independent attitude towards the Ministry of Health. Local authorities should not accept as final opinions or vetoes imposed by the Ministry; they should question in public every ordinance contrary to their interests and test on every occasion the legality of such decisions. The Ministry of Health in many cases is definitely exceeding its powers. The Building Industry should be behind all efforts made to counter the deflationary activities of the Ministry of Health.

III. The Building Industry and its allied trades, as we suggested last week, should at once create a National Construction and Planning Board which, in addition to adopting the weapons of criticism as outlined above, should get down to the business of suggesting new types of activity to local authorities and to the Ministry of Health and link up with it the question of finance.

The ordinary methods adopted, namely, the issue of loan capital, the use of short-term and even long-term Bills, local loans and, in the final resort, bank advances, which have been used hitherto by trades in the Building Industry, in common with all other trades, should be supplemented by the creation of a central organization which will pool the credit resources of the Building

Industry and, on the strength of such pooling, come to the money market and raise, specifically, capital for new construction. This capital may or may not be guaranteed by the Government ; in the present state of accumulation of deposits there will probably be no necessity even for such a guarantee.

The important thing is that the public should have confidence in the personnel of the new Board, should have concrete evidence of the construction to be undertaken, and should have a clear idea that such construction is not for speculative building purposes but forms part of a properly co-ordinated plan of national economic revival.

NEWS & TOPICS

L.C.C. COMMITTEE ON HOSPITAL PLANNING

THE problems of hospital planning and construction have been considered by a special Committee set up by the London County Council. Some of their conclusions, which are of general interest to architects, are contained in an official report on Public Health that has just been circulated.

*

The relative merits of vertical and horizontal planning were considered, and the Committee came to the conclusion that in this country it was not desirable to build to a greater height than six stories, and then only when high site values necessitated the restricted use of ground area. The cost of administration is probably less for a vertical than for a horizontal building, whilst the problem of heating is simplified in the former type. On the other hand, low buildings lend themselves to a more " open " treatment and encourage a greater use of exercising grounds for recovery purposes, etc. The difference between the costs per bed in the two types may not be great, but this depends largely upon the character and situation of the site. Although vertical planning involves greater fire risks, under modern conditions these tend to be reduced to a minimum.

*

The relative merits of the following types of construction were considered :—

1 : Temporary (such as frame of timber with lining of asbestos and corrugated iron exterior).

2 : Light permanent one- or two-story buildings, similar to the type adopted in the reconstruction of Long Reach Hospital (hollow walls built of two thicknesses of concrete slabs, rough-cast outside ; steel and timber roofs carried on stanchions, concrete encased—estimated life about 60 years).

3 : Heavy permanent construction.

*

For new hospitals in the suburbs it was agreed tentatively to recommend the adoption of as light a form of permanent construction as was compatible with normal requirements and due provision against fire risks. Although, in view of such risks, the use of temporary buildings is not considered advisable, the erection of buildings of this character might be required to meet an urgent need for accommodation in abnormal epidemics, and in such an event it would be necessary to devote careful attention to the question of fire risks. The Committee do not favour the heavy permanent type of building in view of the constant adjustments necessary to meet the changing requirements of medical science. For a convalescent hospital in the suburbs, one- or two-story buildings of light permanent construction are advocated.

*

THE NATIONAL COUNCIL AND FINANCE

Naturally, the Building Industries National Council is not without its problems. The fundamental question is that of financial strength. Architects must not expect too much from this new body until it has become firmly consolidated and unless it is generously supported by the Industry as a whole.

*

Appeal letters have been sent out during the past few days, and on the result of these will largely depend the future of the Council, which, in theory at any rate, is supported by all branches of the Industry.

*

NEW BUILDINGS FOR BRISTOL

Bristol City Council have taken the definite step of nominating E. Vincent Harris to design their new municipal buildings on the College Green site. The progress of the project was interrupted some time ago in order that the claims of local architects should be considered, and the acute need of finding work for men in the building trades has admittedly weighed with the authorities in the immediate decision to proceed. The Council anticipate that the scheme will provide work for 400 men for two years directly, and recognize that it will benefit many more indirectly.

*

But all is not yet clear to go ahead. Permission must be obtained from the Government to raise a loan of £300,000 ; and it will be interesting to see what course events take in view of the present suicidal ban on expenditure.

*

Incidentally, at the Council meeting, a member bemoaned the sums spent on architects' (and surveyors') fees by Bristol during the last three years, and suggested that much of the work could be carried out by a properly organized engineers' department, *with qualified assistants.*

*

There is news of other activity in the Bristol area. The

THE ARCHITECTS' DIARY

WEDNESDAY, JANUARY 18

R.I.B.A., 9 Conduit Street, W.1. Exhibition of the prize drawings for 1932. 10 a.m. to 8 p.m. (Saturdays 10 a.m. to 5 p.m.). Until January 28. **10 a.m.**

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 1933. 10 a.m. to 6 p.m. Until March 11. **10 a.m.**

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. " Martin's Bank New Headquarters." By Herbert J. Rowse, F.R.I.B.A. **6 p.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. " Roman Architecture—1." By Sir Banister Fletcher, PP.R.I.B.A. **6 p.m.**

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. " Welding in Civil Engineering." By C. Helsby, M.I.STRUCT.E. **7.45 p.m.**

THURSDAY, JANUARY 19

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. " Fatigue Stresses in Steel Structures." By Professor F. C. Lea, O.B.E., D.SC.

FRIDAY, JANUARY 20

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. " Replanning London's Built-up Areas." By Thomas Adams, F.S.I., PP.T.P.I. **5 p.m.**

HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION. At Winchester. Council Meeting, 3.30 p.m. General Meeting, 6.15 p.m. Lecture by G. Roberts, of Dorman Long and Co., Ltd. 6.30 p.m. **3.30 p.m.**

SATURDAY, JANUARY 21

Sunrise 7.54 a.m. Sunset 4.29 p.m.

MONDAY, JANUARY 23

R.I.B.A., 9 Conduit Street, W.1. General Meeting. Address to students and presentation of medals and prizes, 1933. **9 p.m.**

TUESDAY, JANUARY 24

LONDON SOCIETY. Visit to the Church of St. Giles, Cripplegate, E.C.2. **2.30 p.m.**

Four of the R.I.B.A. prize-winners: left to right, Alexander Varcoe (Archibald Dawnay Scholarship); Basil Spence (Pugin Studentship); Alan Reiach (Tite Prize); A. G. S. Fidler (Victory Scholarship). The first three received their training at Edinburgh College of Art; Mr. Fidler is a student of the Liverpool School of Architecture.

building of a large cinema at Clifton to seat 2,300, is to be begun immediately, and this promises 200 men employment for nine months.

*

If these things can happen now, under isolated municipal and private auspices, there is no question that concerted enterprise on a national scale would soon get us out of the rut of unemployment.

*

MORE GIFTS FOR LONDON UNIVERSITY

Grants continue to be promised towards the cost of the new London University Buildings, upon which the actual start was recorded in the JOURNAL a week or two ago. The City of London has put up £100,000, the Clothworkers' Company, £20,000, the Mercers', Fishmongers' and Grocers' subscribe £10,000 each, and the Drapers' and Skinners' £5,000 each. The benefactions will be applied towards meeting the cost of the new Ceremonial Hall.

A TIP FOR ARCHITECTURAL FINALISTS

I was talking to one of the R.I.B.A. Final Examiners the other day, and was interested to hear from him that he always sets at least one question which candidates can have no hope of answering unless they make a habit of reading the advertisement pages in architectural periodicals —an instructive sidelight on their importance nowadays in keeping architects abreast of modern methods and modern materials.

*

YE GODDES!

From *The Evening Standard* (Londoner's Diary):—

> While walking with a friend yesterday I found the best sample yet of "ye olde" mania, which I loathe.
>
> A "tradesman's entrance" was neatly labelled "Ye merchants' entrance."
>
> My friend bestowed on this device one look
>
> "Uppe ye olde polee," he remarked.

ASTRAGAL

POINTS FROM THIS ISSUE

The whole world looks to Britain for a way out . . . the Building Industry is in every way in a position to take the lead 110
The rats and mice which infested the houses that Nash built 111
The walls of the children's ward at the King's Fund Model Hospital are tiled with thousands of actual model tiles 112
"Architecture is nothing but ornament added to building" 117
Advertising is a force that can be used for the betterment of life 117

OTHER NEWS ITEMS

Carlton House Terrace

Already over two hundred eminent men and women have given their support to the movement for the preservation of Carlton House Terrace by joining the General Committee in process of formation for its defence. The Rt. Hon. Sir Arthur Steel-Maitland has consented to serve as chairman, with Mr. J. C. Squire as vice-chairman. It is proposed to call an early general meeting for the purpose of appointing a small executive committee. Anyone interested or desirous of subscribing should communicate with Mr. Squire, or the secretary, Miss M. I. Batten, 39 St. James's Street, S.W.1.

Design and Production

Mr. R. A. Duncan, A.R.I.B.A., is to deliver a lantern lecture on "Designing for Industrial Production" at the First Edition Club, 6 Little Russell Street, W.C.1, on Thursday, January 26, at 8.15 p.m. The lecture is being held under the auspices of the Design and Industries Association.

Timber Preservation

Two "broadcast talks" on timber preservation are to be given by Mr. R. C. B. Gardner, Secretary of the British Wood Preserving Association. On Friday next, January 20, he will speak on "The Decay of Timber in Houses," and on Friday, February 3, his subject will be "Beetle Enemies of Timber." Both talks are scheduled from 7.5 to 7.25 p.m.

Architects' Unemployment Fund

Following is a letter, signed by Sir Raymond Unwin, P.R.I.B.A., and Maurice E. Webb, F.R.I.B.A., appealing for further contributions to the Architects' Unemployment Fund.

DEAR SIR,

It is now a year since we wrote you last appealing for funds to start a scheme for the relief of unemployment among architects.

Thanks to the prompt and generous nature of the response to our letter the scheme was started early in January (1932) and a number of architects, who found themselves without a livelihood as a result of the economic depression, were placed in emergency work. As it was felt that the men would prefer to earn the money rather than receive it as a free gift, assistance was only given in return for work done.

Careful consideration was given to the kind of work to be provided. It was desirable that it should not compete with work done by the architectural profession generally, and it should preferably be of public interest and importance. The Committee were fortunate in finding, through the London Society, the type of employment they wanted. Work was immediately begun in London in making measured drawings of seventeenth- and eighteenth-century architecture, on Surface Utilization maps showing the built-up districts and on surveys illustrating the height of existing buildings. The indexing of architectural drawings in London libraries for the Architectural Graphic Records Committee was also undertaken and work of a useful and public nature outside London started at Bristol, Gloucester, Guildford, Eastbourne, Manchester, Liverpool and Marlow.

All applicants for employment have to appear before a Sub-committee and work is given as far as funds allow. Unfortunately, it has not been possible to help all, and only the most serious cases have been given work. These latter are generally married men with families. There are at present 61 men employed and the salary list averages £130 a week. The total receipts (donations, £3,880 3s., which includes £1,050 from the dance at Olympia, subscriptions, £2,811 2s. 5d.) amount to £6,691 5s. 5d. for the period January to November 30, 1932. The balance in hand at the beginning of this month was £2,076 1s. 1d., or approximately sixteen weeks' salaries.

No charge whatever is made for stationery, postage or clerical assistance. The whole of the money subscribed goes into the fund for the payment of salaries to unemployed men. Up to date 80 men have been helped. Nineteen of these have since obtained other work and 61 remain on the salary list. It is felt that more claims may be made on the fund unless the present outlook improves very rapidly. Many men who have managed to carry on with the aid of small savings are approaching the time when they will need the Committee's help. Every effort must be made to add to the funds if the Committee are to be able to assist even the most serious cases during the winter. An appeal is made to all who have contributed to the fund in 1932 to continue their support in 1933, and it is earnestly hoped that those architects in work who have not yet contributed to the fund may see their way to do so either by way of a donation or a subscription in the New Year.

We are,
Yours faithfully,
RAYMOND UNWIN
(PRESIDENT R.I.B.A.)

MAURICE E. WEBB
(CHAIRMAN, ARCHITECTS'
UNEMPLOYMENT COMMITTEE)

Cheques should be made payable to the Architects' Unemployment Committee and sent to the Secretary, the Architects' Unemployment Committee, 9 Conduit Street, London, W.1.

Exhibition of Drawings

In our issue for January 4 we published particulars of the exhibition, to be held at Lewis's, Ltd., Manchester, of the drawings submitted in the Incorporated Association of Architects and Surveyors £1,000 All-British House Competition, together with models of the prize-winning houses and a number of drawings by Sir Edwin Lutyens, R.A. (President of the I.A.A.S.). In addition to the exhibition at Manchester, which will remain open from January 19 to 28 inclusive, the drawings, etc., will be on view at Lewis's stores in the following towns: Liverpool: February 9 to 18 inclusive; Birmingham: March 2 to 11 inclusive; Glasgow: March 23 to April 1 inclusive. Each store will be open daily from 9 a.m. to 6 p.m. (Wednesdays, 1 o'clock; Glasgow: Tuesday, 1 o'clock).

R.I.B.A.

THE NEXT MEETING

On Monday next, January 23, at 9 p.m., Sir Raymond Unwin will deliver his address to architectural students. The address will be followed by the annual presentation of the Prizes and Studentships in the award of the R.I.B.A. The awards, announced on Monday of last week, are as follows :—

PRIZES AND STUDENTSHIPS

The Tite Prize. A Certificate and £50 for the Study of Italian Architecture. Subject : " A Ball Room in the Grounds of an Italian Embassy." Awarded to A. Reiach (School of Architecture, Edinburgh College of Art). Certificate of Honourable Mention : G. Clark, Sydney, Australia.

The Victory Scholarship. A Silver Medal and £150 for the Advancement of Professional Education. Subject : " A Group of Buildings and their surrounding Layout in a Botanical Garden." Awarded to A. G. S. Fidler, B.ARCH. (School of Architecture, University of Liverpool). Certificate of Honourable Mention : D. McIntyre, A.R.I.B.A. Armstrong College, University of Durham.

The Pugin Studentship. A Silver Medal and £75 for the Study of Mediæval Architecture of Great Britain and Ireland. Awarded to Basil Spence, Edinburgh Coll. Certificate of Honourable Mention and the sum of £10 to K. J. Grice, Birmingham School.

The Owen Jones Studentship. A Certificate and £100 for the Study of Ornament and Colour Decoration. Subject : " Interior Treatment of the Entrance Hall of a Newspaper Building." Awarded to H. F. Hoar, B.A. HON. (ARCH.) LOND., A.R.I.B.A. (Bartlett School of Architecture, University of London). Certificate of Honourable Mention: Miss Sadie Speight, B.A. HON. (ARCH.) MANCHESTER, A.R.I.B.A.

The Royal Institute Silver Medal and £50 for an Essay. The Council regret that they are unable to award the Silver Medal and £50. They have, however, awarded a Certificate of Honourable Mention to R. H. C. Finch (London University), for "An Essay on Old St. Paul's, London."

The Henry Saxon Snell Prize. £100 offered jointly by the R.I.B.A. and the A.A. for the Study of the improved design and construction of hospitals, convalescent homes and asylums for the aged and infirm poor. Awarded to Ernest E. Davis, A.R.I.B.A., London.

The Alfred Bossom Travelling Studentship. A Gold Medal and £250 for the Study of Commercial Architecture in America. Subject : " A Block of Service Flats." Awarded to D. E. Harrington, A.R.I.B.A. (Department of Architecture, Northern Polytechnic, Holloway) ; Silver Medal for the competitor placed second : R. F. Orfeur, A.R.I.B.A., (A.A., London) ; and the Alfred Bossom Recognized School Silver Medal to A. Johnson, DIP. ARCH., LEEDS, A.R.I.B.A.

The Henry L. Florence Bursary. £360 for the Study of Greek and Hellenistic Architecture of the Mediterranean Basin. Awarded to D. Theodore Fyfe, F.R.I.B.A.

The Godwin and Wimperis Bursary. A Silver Medal and £200 for the Study of Works of Modern Architecture Abroad. Awarded to Howard Robertson, F.R.I.B.A.

The Grissell Gold Medal and £50 for the Encouragement of the Study of Construction. Subject : " Premises for a Sporting Club." Awarded to R. Ashton (School of Architecture, the Architectural Association, London). Certificate of Honourable Mention : J. A. Carrick (Glasgow School).

The Hunt Bursary. £50 for the Encouragement of the Study of Housing and Town Planning. Awarded to F. G. Costello (London University).

The Arthur Cates Prize. £50. (In the current year the prize was offered for the promotion of architecture, more especially in relation to the application of geometry to vaulting stability of edifice and design.) Awarded to Hubert Bennett (Manchester University), who was the only applicant.

The Athens Bursary. £100 for Study at the British School at Athens. Awarded to William James Smith, F.R.I.B.A. (Glasgow School).

The Ashpitel Prize, 1932. Prize of books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year, to Francis William Wright (Sheffield School).

The R.I.B.A. Silver Medal and £5 in Books for Students of Schools of Architecture recognized for exemption from the Final Examination. The Council have awarded the Silver Medal and £5 in books for the best set of drawings submitted at the annual exhibition of designs by students of schools of architecture recognized for exemption from the Final Examination to Elie Mayorcas (Student), of the School of Architecture, The Architectural Association, and a Certificate of Honourable Mention to Alwyn G. S. Fidler (Student) of the Liverpool School of Architecture, University of Liverpool.

The R.I.B.A. Bronze Medal and £5 in Books for Students of Schools of Architecture recognized for exemption from the Intermediate Examination. The Council have awarded the Bronze Medal and £5 in books for the best set of drawings submitted at the annual exhibition of designs by students of schools of architecture recognized for exemption from the Intermediate Examination to Paul K. Pope, of the R.W.A. School of Architecture, Bristol, and a Certificate of Honourable Mention to Malcolm G. Gilling (Student) of the Liverpool School of Architecture, University of Liverpool.

The Archibald Dawnay Scholarships. One of the value of £75 and one of the value of £50 for the advanced study of construction. The Council have awarded the £75 Scholarship to Alexander W. Varcoe (Student), of the School of Architecture, Edinburgh College of Art, and the £50 Scholarship to Malcolm G. Gilling (Student), of the Liverpool School of Architecture, University of Liverpool.

The R.I.B.A. Prize for Art Schools and Technical Institutions with facilities for the instruction of intending architects (£5 in books). Awarded to Miss Kathleen I. Maynard (Student), of the Central School of Arts and Crafts, Plymouth.

The R.I.B.A. Prizes for Public and Secondary Schools. Prizes for Essays. The Council have made the following awards: 2 guineas to Elsie A. Leach, of West Leeds High School, for her essay "Kirkstall Abbey"; 1 guinea to Kenneth New, of the Grammar School, Castleford, for his essay "Sherburn Parish Church"; 1 guinea to D. Brian Peace, of Mill Hill School, for his essay "Time and the Church of Hope in Derbyshire." Prizes for Sketches: 4 guineas to C. C. Giffard, of Charterhouse, Godalming, for his miscellaneous sketches; 2 guineas to S. C. Halbritter, of Chatham House (County) School, Ramsgate, for his drawings of Canterbury Cathedral.

The designs and drawings submitted in competition for the prizes and studentships are on Exhibition in the R.I.B.A. Galleries until January 28, between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.).

ELECTION OF MEMBERS

At a recent Council Meeting of the Institute the following members were elected:

As Hon. Associate (1): Wilson, J. S.

As Fellows (17): Butcher, A. J.; Norton, C. J.; Stanley, L. S.; Waterhouse, M. T.; Williams, E.; Agate, C. G.; Armistead, Lieut.-Col. R. B.; Chermayeff, S. I.; Crimp, A. G.; Kennard, C.; Ochterlony, Sir M. M., Bart.; Palmer, F. M.; Randle, G.; Sunderland, A.; Watson, G. P. H.; Folkes, H. E.; Smith, T. H.

As Associates (14): Berman, M. D., DIP. ARCH., Cape Town (School of Architecture, University of Cape Town); Birks, T. H. (School of Architecture, Victoria University, Manchester); Coates, U. A., B.Arch., Lvpl. (School of Architecture, University of Liverpool); Fairhurst, R. F., DIP. ARCH., Lvpl. (School of Architecture, University of Liverpool); Flegg, B. M., A.A. Diploma (Architectural Association, London); Gibson, A. G. (Architectural Association, London); Gordon, H. V.; Greenaway, G. F. (School of Architecture, Victoria University, Manchester); Martineau, D. (School of Architectural Studies, Cambridge University, and the Architectural Association, London); Myerscough-Walker, H. R. (Architectural Association, London); Peace, F. N., DIP. ARCH., Lvpl. (School of Architecture, University of Liverpool); Poppleton, W. C.; Stott, J. P. (School of Architecture, Victoria University, Manchester); Wilcockson, I. D.

As Licentiates (11): Ash, Captain A. S.; Bellis, G.; Carr, H.; Cox, Captain H. J.; Higuer, A. A.; Milburn, E.; Rushworth, S. H.; Shutt, R. P.; Smith, E. L.; Waterhouse, B.; Webb, H. F.

PRELIMINARY COMPETITIONS

The preliminary competitions for the Tite Prize and the Soane Medallion will be held in London and at centres in the provinces on Wednesday, March 1, and Thursday, March 2 respectively. Forms of application for admission to the preliminary competitions may be obtained at the R.I.B.A., 9 Conduit Street, W.1. The closing date for the submission of forms of application is Friday, February 10, 1933.

THE RATIONALIZED ARCHITECT

●

PLANNED OFFICE PRACTICE

●

THE JOURNAL'S NEW FEATURE

In his article in the New Year issue of the JOURNAL, Mr. Howard Robertson showed that architects today must extend the scope of their ability to plan. Planning should have greater significance than it has had in the past; it should be the basis not of one branch only of the architect's work but of the whole of his professional practice. He should plan and organize within his own firm, and rationalize every one of the activities of his office.

A short time ago I happened to call on Mr. Francis Lorne, and there, on a piece of linen laid out on a drawing board, I found a drawing that, in its own small way, was as fine a bit of planning as I have ever seen. It was an Information Sheet got out for the use of the members of the office of Sir John Burnet, Tait and Lorne; one of a hundred odd sheets by means of which the practice of the firm is "rationalized."

Information sheets are greatly used in German and American offices, but I think I am pretty safe in saying none so detailed and comprehensive have ever before been drawn up in any country in the world.

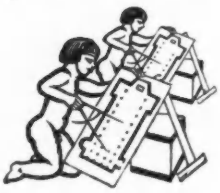
These information sheets, of course, were made specially for one particular office, but they seemed to me to be such excellent examples of rationalization applied to architectural design, and they so aptly pointed the moral drawn by the New Year Planning Issue of this JOURNAL, that I suggested to Mr. Lorne that they should be published for the use of other architects.

Far from rejecting the idea of making public property of these sheets (which, incidentally, cost several hundred pounds to produce, not to mention the immaculate labours of Mr. Bayne, who must be one of the finest draughtsmen in the country—like several other fine British draughtsmen he is an Australian) the firm jumped at my proposal. It was finally decided that this JOURNAL should publish one drawing a week, which it now proposes to do, the drawing on one of this week's supplements being the first of the series.

May I add that this desire to broadcast information acquired at great cost, in both money and experience, for the use of other members of the profession is one of the few marks which still distinguish architects from tradesmen.

The Americans are particularly generous about broadcasting all their information for the use of brother architects, and so are the Germans, as the travelling English architect invariably finds. I am glad to be able to state that Sir John Burnet, Tait and Lorne helped certain firms of architects in Brussels and Paris not long ago by providing them with a complete set of their working drawings for the Eastman Dental Clinic.

COMPETITION NEWS



Architectural Assessment

[The letter which follows, from Mr. Kendrick Edwards, M.INST.C.E., F.R.I.B.A., explains itself. Owing to the pressure on our space, the article referred to by Mr. Kendrick will be published in our next issue.—ED., *A.J.*]

Sir,—It must be understood that nothing contained herein is intended as adverse criticism of the R.I.B.A. I have seen so much proof of the high efficiency of the Royal Institute and of the wonderful self-sacrificing nature of those of its members who give whole-heartedly of their time and services for the welfare of the profession, that I could not but range myself on its side if defensive support were necessary or desirable. Further, this subject of Architectural Assessment is one in which I am sure that the R.I.B.A. Council will take an active interest if any reasonable suggestion can be put forward which is likely to result in any improvement. But until any Member is able to put forward some improvement upon, or alternative for the suggestion I describe, we must not expect any notice to be taken of our endeavours. The Council is doubtless far too busy with heavy routine and special obligations to indulge in speculative improvements until convincing suggestions are available.

I have been much impressed by the letter of the Town Clerk of Southwark, published in your JOURNAL *for November 30, particularly as regards the high character and ability displayed throughout the difficulties.*

In the same JOURNAL *you publish an article entitled "Judge or Jury," in which it is stated that the idea of a competition has often been abandoned due to the promoters realizing that, although they have their say in the drafting of conditions, they may, beyond that stage, "find themselves in the hands of an omnipotent assessor who may or may not, in their view, be omniscient." The article then proceeds to suggest that the appointing of laymen to work with the assessor is, in the opinion of many, likely to give greater satisfaction.*

In my opinion it would be better for the assessor, or assessors, to work independently of the promoters as regards formulating their findings, but the assessors should thereafter be able to meet the promoters, thus constituting a jury, and to be able to advance reasons for their findings in terms which laymen would understand, thereby carrying their jury with them. The ultimate decisions should be those of the assessors but it should be in order for them to amend or entirely reverse their findings if the promoters or their representatives should be able to show them sound reasons for anticipating that a design, not so far favoured, offers a greater prospect of meeting the requirements of the promoters.

The enclosed article on "Architectural Assessment" was written prior to any matter in your JOURNAL *having attracted my attention to the Southwark Competition, but it now appears to be so germane to this subject that I trust it may be of interest.*

Friendly criticism of my article has so far only advanced the following objections :—

1 : That from an educational point of view there is not great waste in architectural competitions. On the contrary, the R.I.B.A. regard them as one of the most stimulating and enlightening parts of its system. Also a large number of men owe their success in life chiefly to what they have learned from competitions.

Answer : To this perhaps it is only necessary now to observe that the number of men who would owe their success in life to competitions would probably be the same under any system of assessing. But the happy results should be greatly augmented if the competitions are won under an improved system. The waste lies chiefly in the results of assessments not being formulated for the use of architectural schools and also in the promiscuous admission of competitors without any preliminary qualifications.

2 : That if my system had been used in the R.I.B.A. Competition the Assessors would have required to fill up the schedule for 280 designs.

Answer : My system is quite adaptable to a large competition such as this. Under my system it would not have been necessary for any assessor to even see the work of another assessor. The number of assessors would have been decided when the number of designs was known and they would have been selected from a Register of Assessors. There could have been 280 assessors, to each of whom one design would have been sent, or a smaller number for two or more designs each. Alternatively, each design could have had two or three independent assessors because the completed schedules would be calculated and co-ordinated by a clerk or clerks. It is entirely a matter of organization, amongst the benefits being reduced labour per assessor, more analytical results and increased representation of professional opinion. The assessors who prepared the conditions could be umpires for the co-ordinated results.

3 : That detailed schedules of precise opinions of assessors on every point would require to be sent to each competitor.

Answer : Not necessarily. Competitors would probably be satisfied with the knowledge that such a studied investigation had been made. But the co-ordinated results could usefully be circulated to the schools through the Board of Architectural Education of the Registration Council.

4 : That, again taking the R.I.B.A. Competition for the purpose of illustration, an unreasonable amount of time of the five assessors would have been necessary.

Answer : Reference to the answer to question 2 above will show that this need not be the result. In fact the inroads upon their time might have been less, or alternatively, more usefully co-ordinated.

5 : That a competitor may prefer to accept his unsuccess without receiving definite criticisms.

Answer : Question and Answer No. 3 rather dispose of this objection ; alternatively, such criticisms might be provided for any competitor desiring them upon payment of a fee. Such are matters of detail which need not invalidate the principle.

The subject is, of course, a very extensive one and many more criticisms could easily be advanced. Nevertheless I trust my article may stimulate thought in a new direction. Perhaps, if criticisms are sympathetically compared with the broad lines of my suggestions, with the desire to effect improvement, a system of architectural assessment may be evolved which would both inspire confidence and carry conviction.

KENDRICK EDWARDS

Competitions Open

***February 1**.—The city of Stockholm invites designs for a town plan for the part of the town called Lower Norrmalm. 60,000 kronors (£3,077) in prizes, 1st premium, 20,000 kronors (£1,025).

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. Open to all architects, architects' assistants, and architectural students. Assessors : A. B. Knapp-Fisher, F.R.I.B.A. (President of the Architectural Association) : G. Grey Wornum, F.R.I.B.A. ; and Howard Robertson, F.R.I.B.A. Also, two members of the Cornish Quarry Masters' Association. First prize, £50. The design, etc., is to be sent to the Secretary of the Architectural Association, 34-36 Bedford Square, London, W.C.1, by Friday, March 24, noon. Full particulars of the competition may be obtained from the Secretary, Architectural Association, 34 Bedford Square, London, W.C.1.

***May 31**.—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

**Full Particulars of the above competitions were published in our issue for December 7.*

Forthcoming Dinners

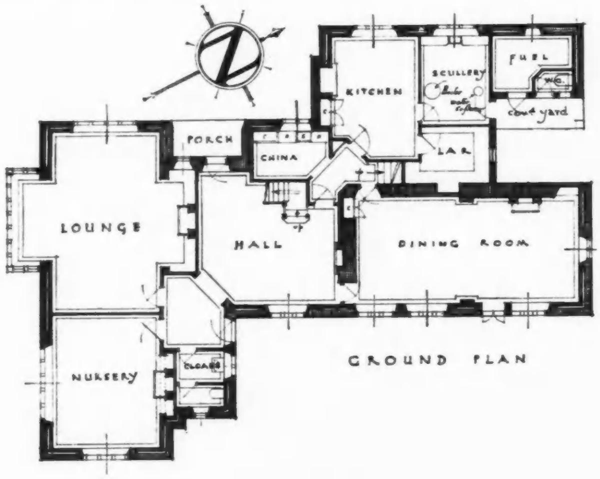
The annual dinner of the Institution of Structural Engineers will take place at the May Fair Hotel on Friday, March 17. The principal guest will be the First Commissioner of Works, Major the Rt. Hon. W. G. A. Ormsby-Gore, P.C., M.P.

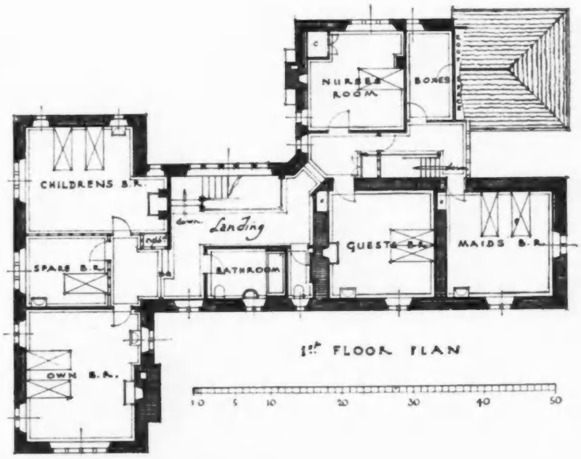
The Annual Dinner of the Drawing Office Materials Manufacturers' and Dealers' Association will be held at the Hotel Metropole, Northumberland Avenue, W.C., on January 25. The annual general meeting takes place earlier that day.

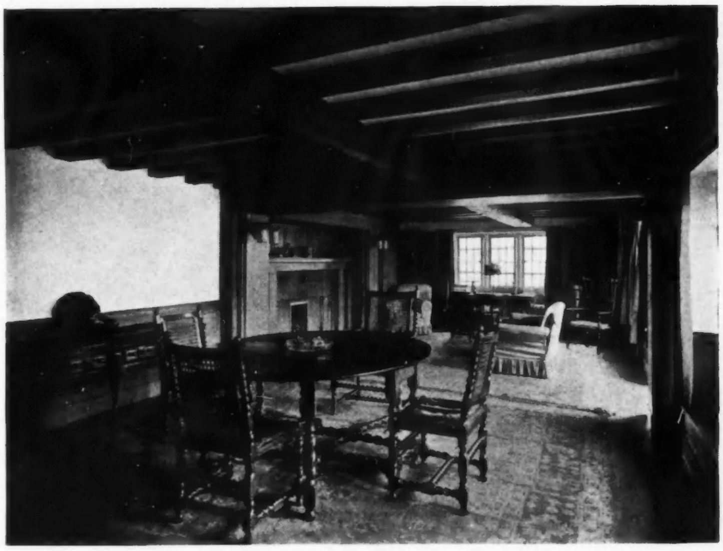
£250,000 Seaside Scheme

The Portsmouth City Council passed plans last week for a proposed winter garden on a site facing the seafront. The frontage of the new buildings, estimated to cost £250,000, will extend approximately 300 feet. The scheme provides for a large indoor swimming pool, ballroom, super cinema, café, roof-garden, etc.

A STONE HOUSE NEAR BAKEWELL, DERBYSHIRE


PORCH
KITCHEN
SCULLERY
FUEL
W.C.
court yard
CHINA
LAR
LOUNGE
HALL
DINING ROOM
NURSERY
CLOAKS
GROUND PLAN


NURSES ROOM
BOXES
CHILDRENS B.R.
Landing
SPARE B.R.
BATHROOM
GUESTS B.R.
MAIDS B.R.
OWN B.R.
1st FLOOR PLAN
10 5 0 10 20 30 40 50

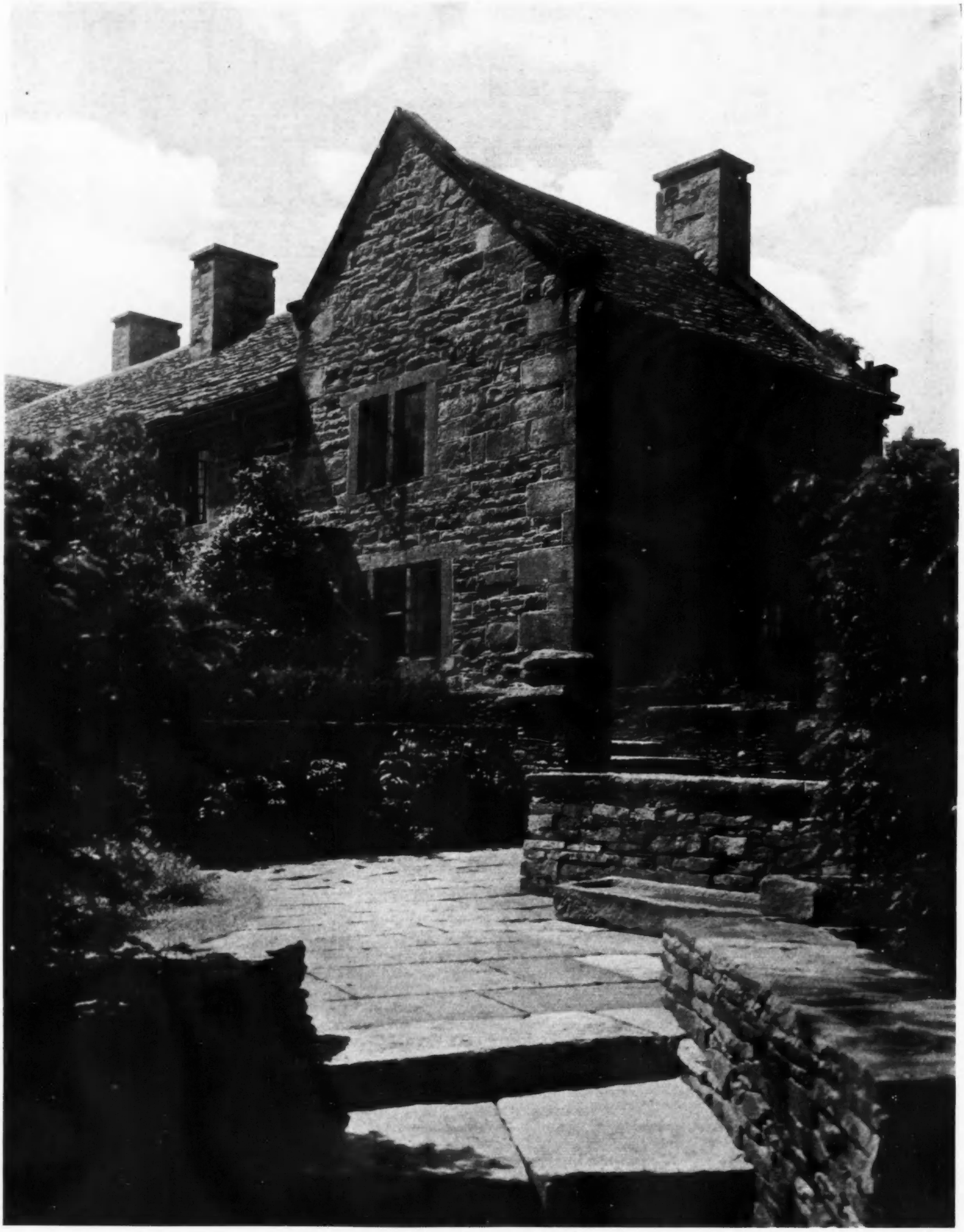


DESIGNED BY NAYLOR, SALE AND WIDDOWS

This house at Chanderhill, overlooking the rolling Derbyshire moors that form part of the Chatsworth estate, incorporates the remains of an old three-roomed cottage, of which only the stone main walls were standing. They form the easterly corner of the plans illustrated and contain part of the hall and the dining-room, of which a view appears above. In the photograph of the garden approach to the house, reproduced on the following page, these cottage walls are seen nearest the camera; the new work, carried out in the local Brampton stone, with sawn dressings to the windows, tones perfectly with the old. The roofing is of Cotswold slates; the soffits are in stone and an eaves gutter of square section with a stray beaded edge has been adopted. The walls are 18 in. thick, with a 4½ ins. brick lining and a 2-ins. cavity.

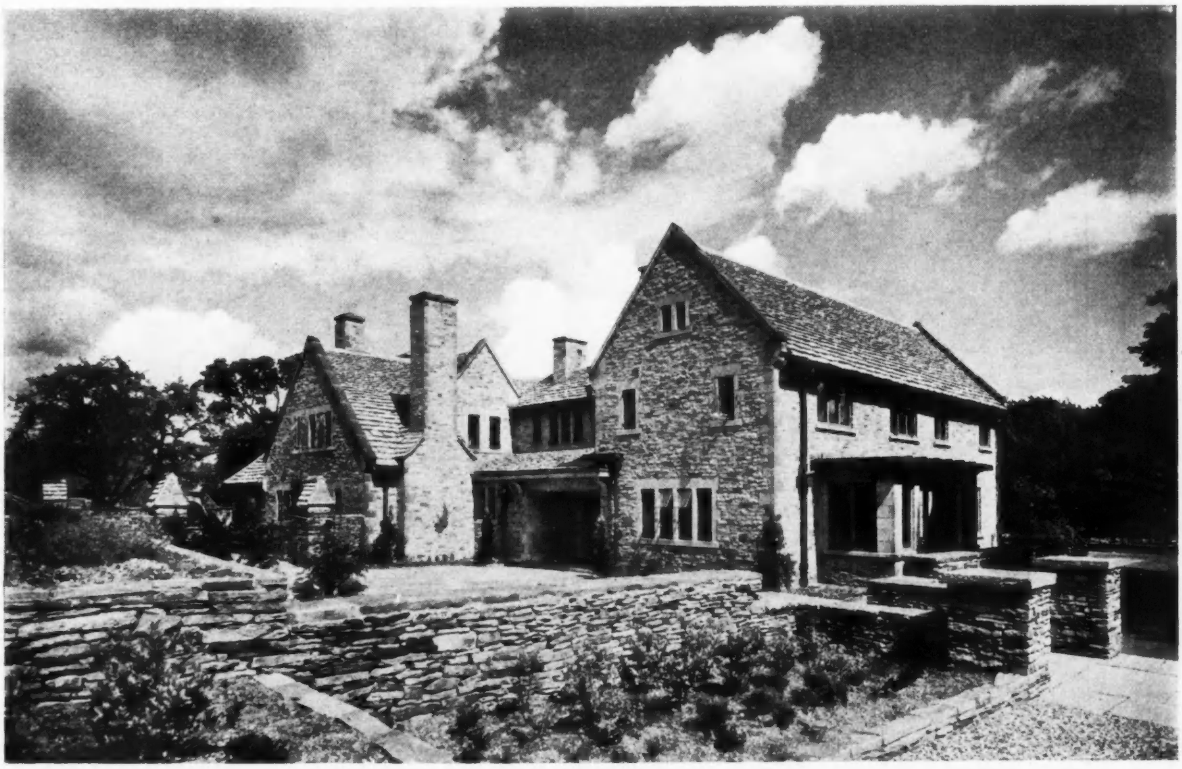
Internally, all floors are in oak, and single-panel doors are fixed throughout. Each bedroom contains an amber coloured basin, with hot and cold water supply. The bathroom has a 5 ft. dado of light blue tiles, 3 ins. square, with white cement joints. There is a recess in the thick outer wall for bath toys and sponges. The floor is in rubber and the woodwork is enamelled white; all fittings are chromium-plated.

A STONE HOUSE NEAR BAKEWELL, DERBYSHIRE:



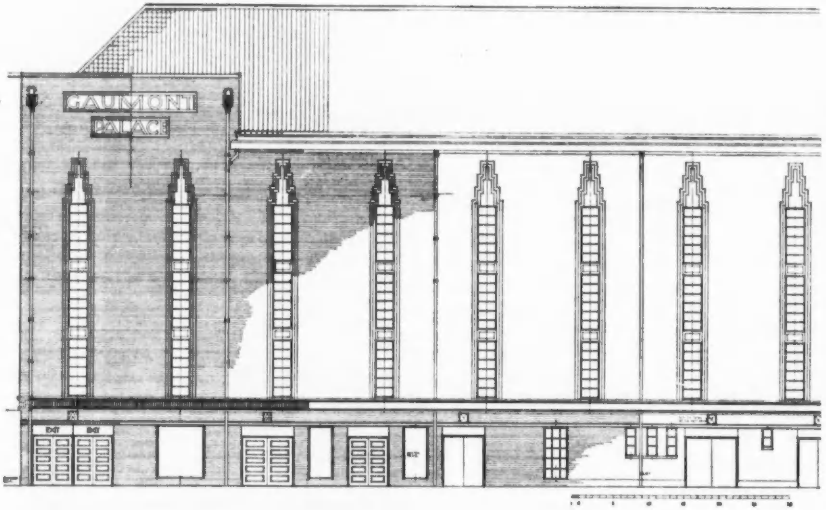
The views reproduced on these two pages are of the house as seen from the east (with cottage portion in foreground), the west and the north. The main entrance faces north-west, and has a deep porch. The photograph in which it occurs not only shows the flagged terracing and stone walls that give unity to house and garden, but illustrates the difference

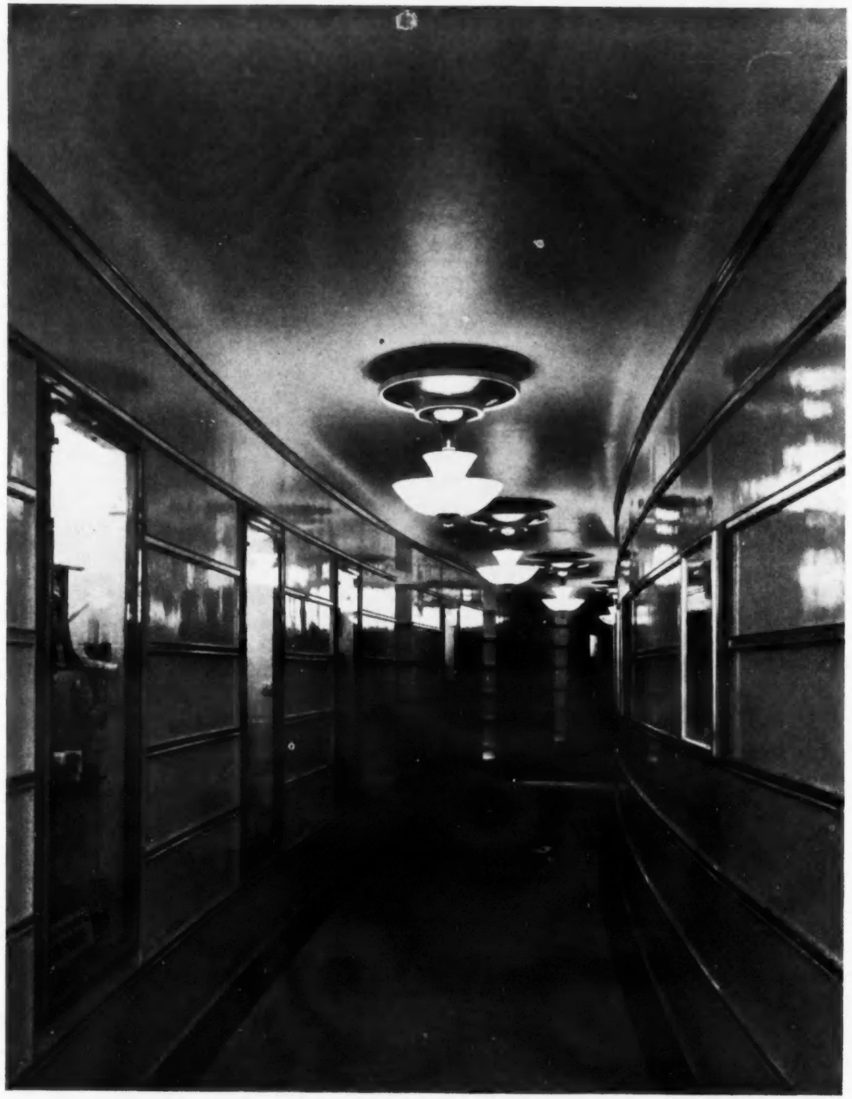
DESIGNED BY NAYLOR, SALE AND WIDDOWS

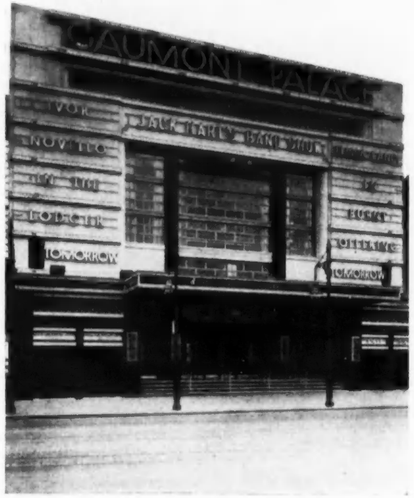


in treatment of the south-west front, containing the prominent bay window to the lounge. Here the windows have heavy oak frames and steel casements with a transverse bar, glazed in lead lights above and in plate glass below, in contrast to the stone dressings used elsewhere. The last picture is taken from outside the boundary wall of Chanderhill Lane.

THE GAUMONT PALACE, LEWISHAM: BY W. E. TRENT (JAS. MORRISON, ASSISTANT)

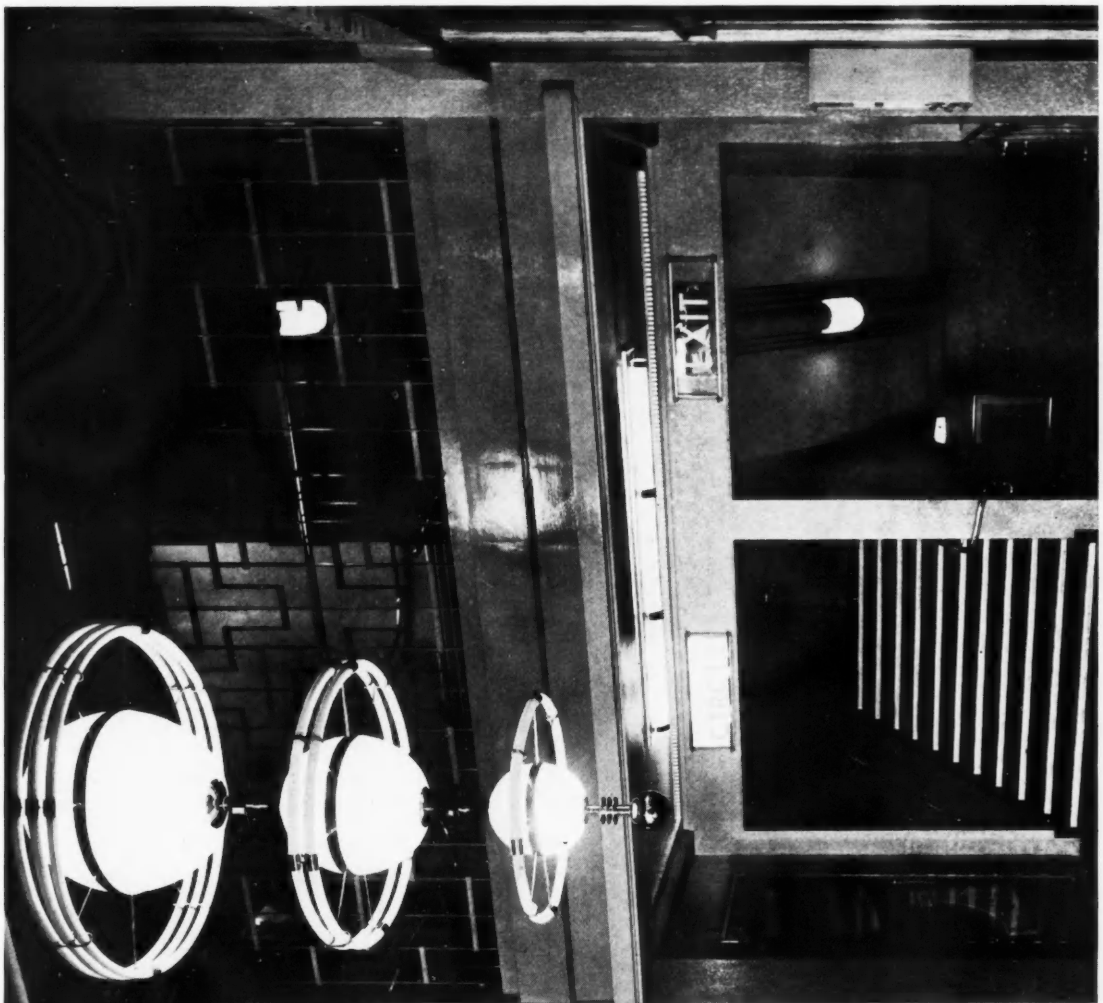




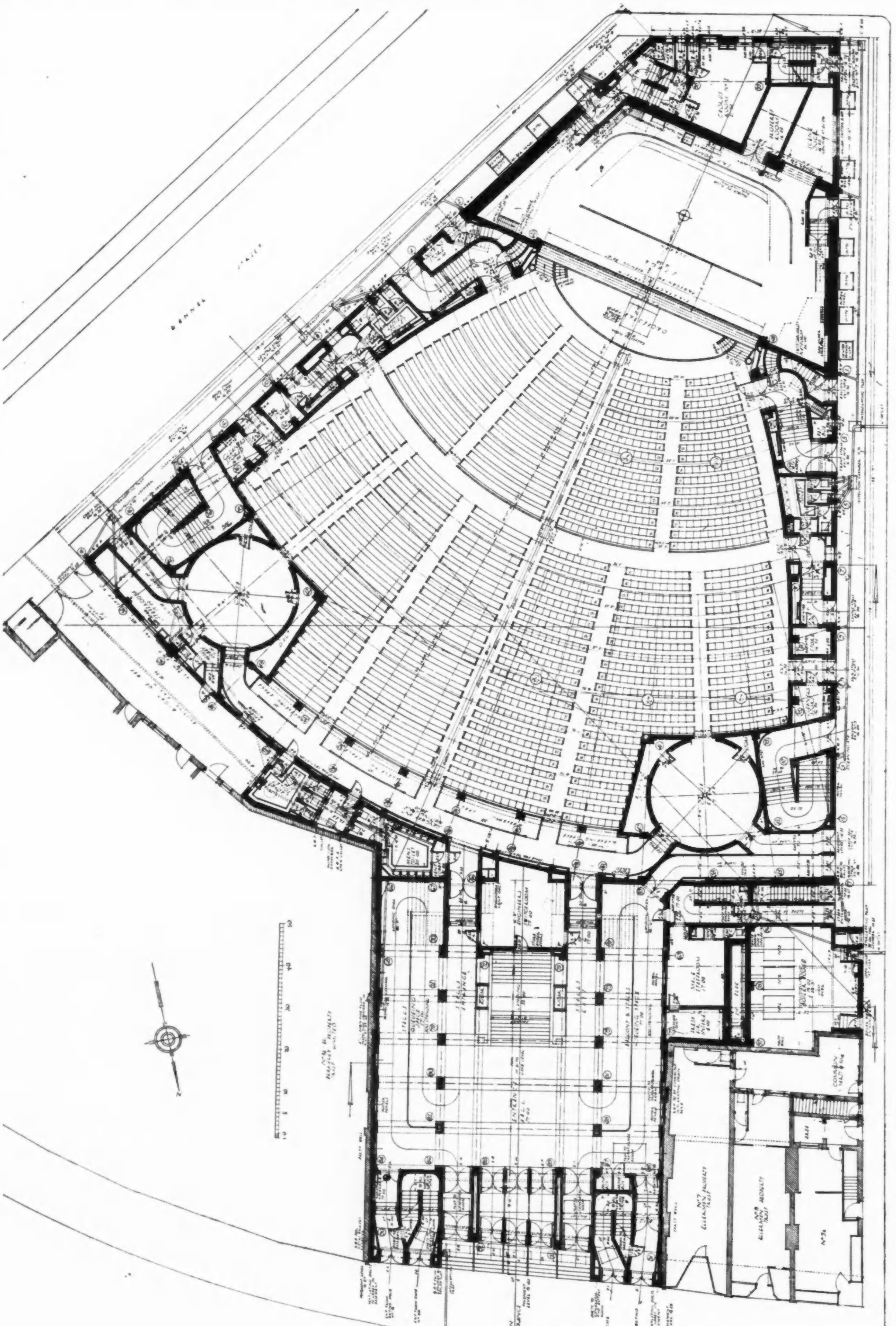


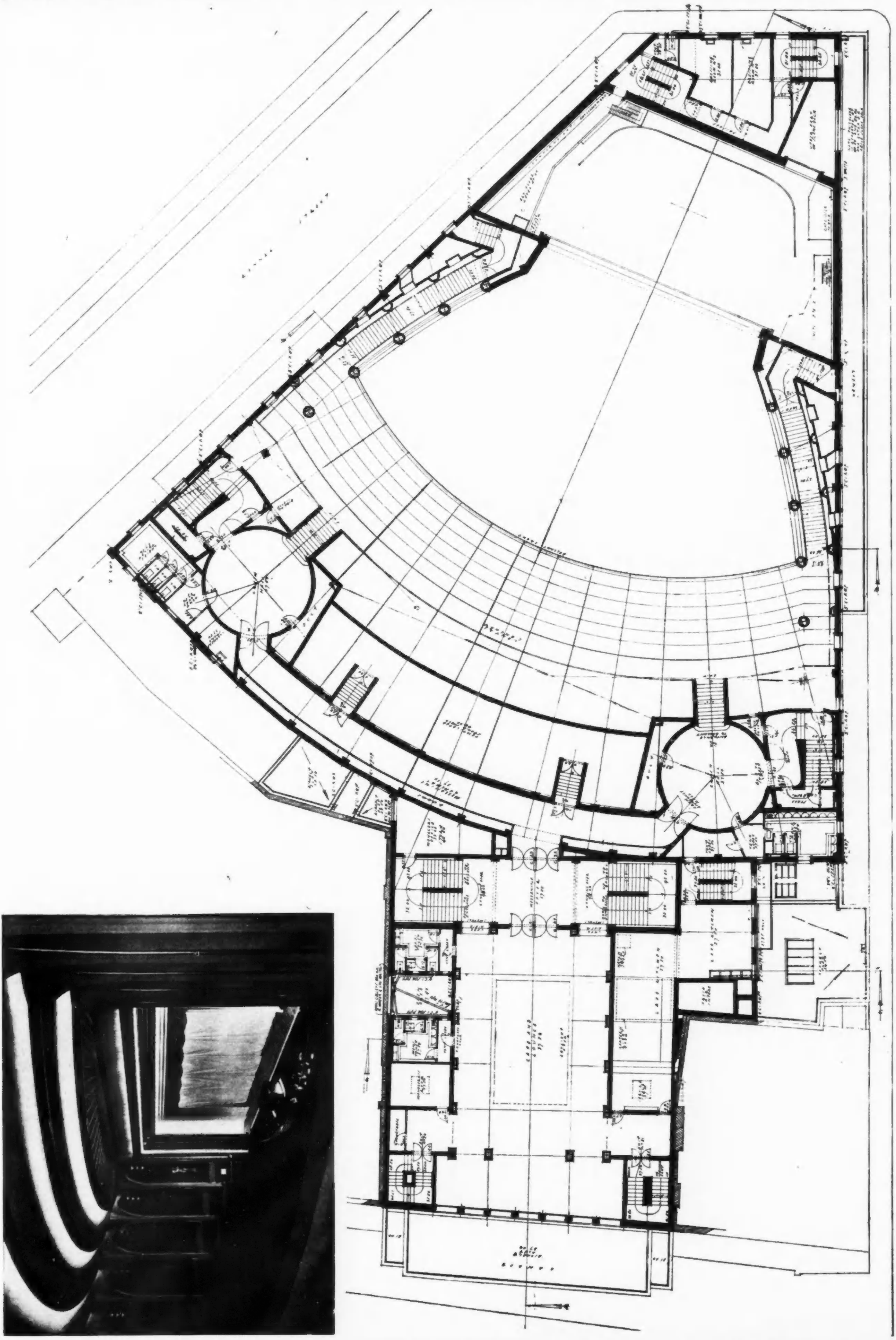
The drawing shows the elevation to Molesworth Street; that to Rennel Street is similar, both being carried out in brick. The photographs show the main entrance in Loampit Vale and two interior views on the first floor: the foyer passage behind the balcony, and the main balcony foyer itself. Plans are reproduced on the two pages overleaf, together with a view of the auditorium from the balcony. The proscenium frame is carried out in blue and silver, and the ceiling is stepped back from it in a series of curves from which concealed lighting is diffused. Drawings of lighting fittings in various parts of the house are the subject of a supplement with this issue.

(Photographs by Bedford Lemere and Co.)


THE CINEMA SHOW
CIRCLE
EXIT

THE GAUMONT PALACE, LEWISHAM: BY W. E. TRENT (JAS. MORRISON, ASSISTANT)





Plans of the Ground Floor (2,000 Seats) and of the Mezzanine Floor (the Balcony provides 1,300 Seats)

LETTERS FROM READERS

A National Plan

SIR,—The New Year issue of THE ARCHITECTS' JOURNAL is a call to action for the whole country and its industries. The whole world looks to Britain for a way out and Britain must show the way. But who shall show Britain? Industry in some form, it must be, and the Building Industry is in every way in a position to take the lead. It is British, its men are British, its materials are British and it is the one industry whose whole output remains in Britain and makes Britain what it is today.

Its towns have been built by it, its monuments (and also, it is true, its slums), its villages, its stately mansions, its cottage homes. It is an industry which is used to planning, and its professional members, both architects and town planners, owe their existence to their skill in planning.

Who, then, is better fitted to lead its planning?

Good planning is but common sense and sound business applied to the problem in hand.

The economists have checked the machine, but it must not stop a moment longer, once the stocktaking process is over. The accountants have done their work, and useful work, too, and they have shown the man in the street the real position of affairs.

The balance sheet is clear, but not by any means discouraging. It shows us where we are.

The world is not poorer than ever before; it is far, far richer so far as production is concerned. The shops are full of goods, the stores of food are everywhere greater than before, the world is full of good things, the banks are full of money, and yet there are nearly three millions of people unemployed and in the world as a whole at least thirty millions. Britain is relatively better off than almost any other land, but it is clear that we must set our house in order and look to our own affairs first.

So far as international trade is concerned, for the moment no one wants to buy anything beyond absolute necessities for food and raw materials. International trade can revive only when each nation is earning a surplus beyond its own immediate needs. Britain must show the way.

We must recognize that conditions today are not what they were; they are, in fact, far better, if they are rightly handled, and every new invention should still further improve the conditions of the people. This is an age of rapid communication, of machinery that can turn out rapidly the same goods, or better goods, with less men than were needed twenty years ago. With further improvements in sight in all directions, we shall do one of two things; we shall either increase our unemployed problem, with its consequent misery, or we shall have to deliberately plan for easier times and better conditions and better wages for everybody. This in itself means replanning on a vast and generous scale.

Machines are saving men in every industry. With proper guidance they may save mankind.

We have the men, we have the materials, we have the money for vast constructional works of every kind, but these works must be part of a well-considered plan—a national plan. Money left with a banker, or an insurance society, or even a building society, can only be productive if it is used to promote productive works. In the past, the financiers have been ready to assist almost every country except our own. The openings abroad are closed; it is now the time for Britain itself to use the resources of Britain for the British people. There must be an end to restriction of output; there must be an end to compulsory unemployment; there must be an end to every evil condition in our towns and in our countryside.

We must plan for better things, if we want better things; we can afford it, if we but use the resources we have to hand; we cannot afford any longer to leave undone those things that we ought to have done, or indeed there is no health in us.

A national survey must be undertaken as the first duty of any National Planning Board.

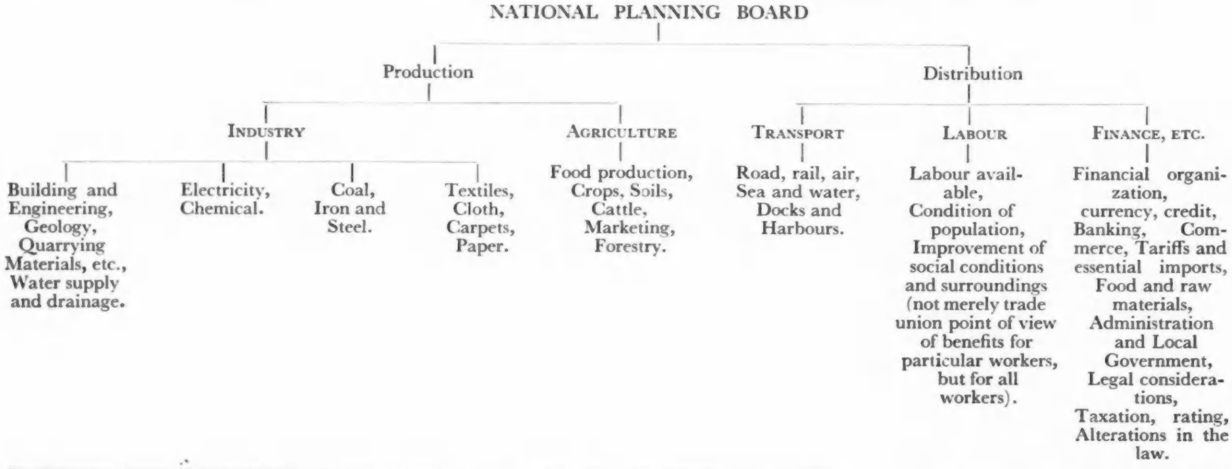
Its object must be to ascertain the assets and resources and present condition of the country and their potential application and improvement for the welfare of the nation.

The Planning Board must be representative of all creative interests, as distinct from merely administrative functions. It must comprise representative planners of industry, agriculture, transport, labour and finance. It must naturally include town and regional planners of experience, who in their daily work have already had to consider in some degree all or most of the questions involved.

The Building Industry is concerned with all other industries whose interests lie in constructional work, and it is fitting that this Industry should take the lead in inviting the co-operation and assistance of any and every branch of industry to take a hand in a matter which so vitally affects the future of all.

The five groupings already mentioned will give an indication of the working of the scheme as a whole, but the diagram printed below may help to make the suggestion clearer.

Each of these five groupings would


NATIONAL PLANNING BOARD
Production
Distribution
INDUSTRY
AGRICULTURE
TRANSPORT
LABOUR
FINANCE, ETC.
Building and Engineering, Geology, Quarrying Materials, etc., Water supply and drainage.
Electricity, Chemical.
Coal, Iron and Steel.
Textiles, Cloth, Carpets, Paper.
Food production, Crops, Soils, Cattle, Marketing, Forestry.
Road, rail, air, Sea and water, Docks and Harbours.
Labour available, Condition of population, Improvement of social conditions and surroundings (not merely trade union point of view of benefits for particular workers, but for all workers).
Financial organization, currency, credit, Banking, Commerce, Tariffs and essential imports, Food and raw materials, Administration and Local Government, Legal considerations, Taxation, rating, Alterations in the law.

have any necessary sub-committees for research into particular problems affecting each sub-division, the terms of reference to each group being the same as in the case of the main planning board, the word " Industry " taking the place of " Country."

It will be seen that the function of the National Planning Board would lie in co-ordinating and bringing into line the research work and proposals of the component groups. Each industry would, in fact, plan itself and make such suggestions as it thought fit for securing the object which all have in view.

It must not be thought that the suggestions would involve anything in the nature of an indefinite number of Royal Commissions with years of investigation and enquiry before anything can be done. In most cases, there are men in each industry or group well qualified to analyse the facts as they at present exist and to sum up the potential lines of development. Comparatively young men with clear insight and vision are to be found in every group, and definite reports and recommendations could be expected from each group within a very short space of time. Probably from three to six months would suffice for all the essential facts and tentative proposals to be available for the National Planning Board.

The various professional and trade associations would have no difficulty in nominating the right men for this responsible task.

The final result of a well-considered plan cannot, in the nature of things, be expected to be achieved all at once. It must be a long-term plan whose operations will extend over a series of years, but so adjusted that a programme of advance works is always available as and when the need arises.

Hasty relief works adopted as a panic measure are not an economy and are indications of the want of a plan. With a national plan in operation, the wheels of industry would again revolve and the wasteful bogey of unemployment, with its attendant distress, would steadily disappear.

W. R. DAVIDGE

Carlton House Terrace

SIR,—Financial loss is what motives the projected destruction of Carlton House Terrace. Are we Britishers, then, such poor " mutts " in building development that the Commissioners of Crown Lands and their advisers could conceive no alternative to demolition, in order to meet the financial loss?

Are we inferior to the French, notoriously hard bargainers in these matters, who consistently achieve financial success when faced with similar problems? The façade of the Place de la Concorde remains intact, but behind it are to be found the Hotel Crillon, two large modern clubs, and a recent internal transformation at the corner of the Rue Royale for the offices of an American financial company. The same process has been followed in the Place Vendôme, and over and over again in the Avenue des Champs Elysées, and elsewhere, when circumstances demanded it.

This Carlton House Terrace business has the air of a comfortable " frame-up " for the interested parties; everything is, of course, perfectly honourable, honest, and legitimate in the affair, but it looks like a " frame-up " nevertheless, because financial loss is to be averted without the " framers-up " being obliged to call into consideration those tiresome æsthetics which would make the money problem difficult.

Crown Commissioners, architects and contractors are now all very happily and profitably tied up in the provisions of legal documents. They could not stay the progress of the work, even if they would. The leaseholders only can do that. As yet there has been no pronouncement in this matter collectively or individually from the directors of the enterprising and wealthy firm of paint manufacturers holding the lease. Such an able body cannot be accounted indifferent to all æsthetic sense.

SIR ROBERT BIRD, BT., M.P.

Crown Lands at Regent's Park

SIR,—I attended Mr. Gaye's lecture to the Chartered Surveyors on January 9, and was greatly interested to hear of the demolition of the slums on Crown lands, which lie to the east of Regent's Park. " Health and hygiene," said Mr. Gaye, " are replacing the rats and mice which infested the houses that Nash built, the great, the incomparable, the almost-sainted Nash."

The only point which I was unable to follow was whether Nash designed the houses for rats and mice, or whether the landlords (the Crown Commissioners) subsequently allowed them to enter as tenants, on, say, a 99 years' lease. (Please do not think that I am comparing the situation in Carlton Gardens to the rodents of Regent's Park.)

Nor did I quite understand whether Nash intended that area to be a slum area when he built it, or whether the landlords (the Crown Commissioners) subsequently allowed it to degenerate.

A. G. MACDONELL

Jerry-Building

SIR,—Mr. Kenneth W. Bland's courteous letter and excellent design do not, I am afraid, help much towards a better-designed elevation to terrace houses.

The builder naturally thinks of putting up something that will sell. When I was a young man, a builder gave me his prescription: " A wide passage, a light kitchen, and a bit of stone round the entrance."

There is just one thing about the elevation of Mr. Bland's pair of houses: Is it true art to cover up a durable thing like a brick wall with a non-durable thing like boarding?

RICHARD J. JENKINS

The R.I.B.A. New Building

SIR,—Like Jacobus (see JOURNAL for December 28) I, too, have been struck by the " curious unanimity of the architectural profession " in the matter of the elevations for the new R.I.B.A. Headquarters.

I can only think it must be due to the intense loyalty of the profession to its elected representatives and to the winner.

The wrought iron grilles to the windows seem to have completely hypnotized critics.

These grilles, which are common enough features in hot climates, where they serve a definite purpose, will—in London—need to be washed at least once a week if they are not to become filthy obstructions—and if the windows are not made to open inwards, it will be impossible to clean the glass, except by means of a hose or the removal of the grilles.

Omit the grilles, and what is left but a square box with rectangular perforations in its sides—obviously incongruous in the stateliness of Portland Place?

Perhaps someone competent will be good enough to explain why we should be enraptured by the contemplation of the elevations for our new " Home " —and perhaps more particularly the reason for the two detached (and isolated) columns which a skidding car is likely to bring down.

GILBERT T. GARDNER

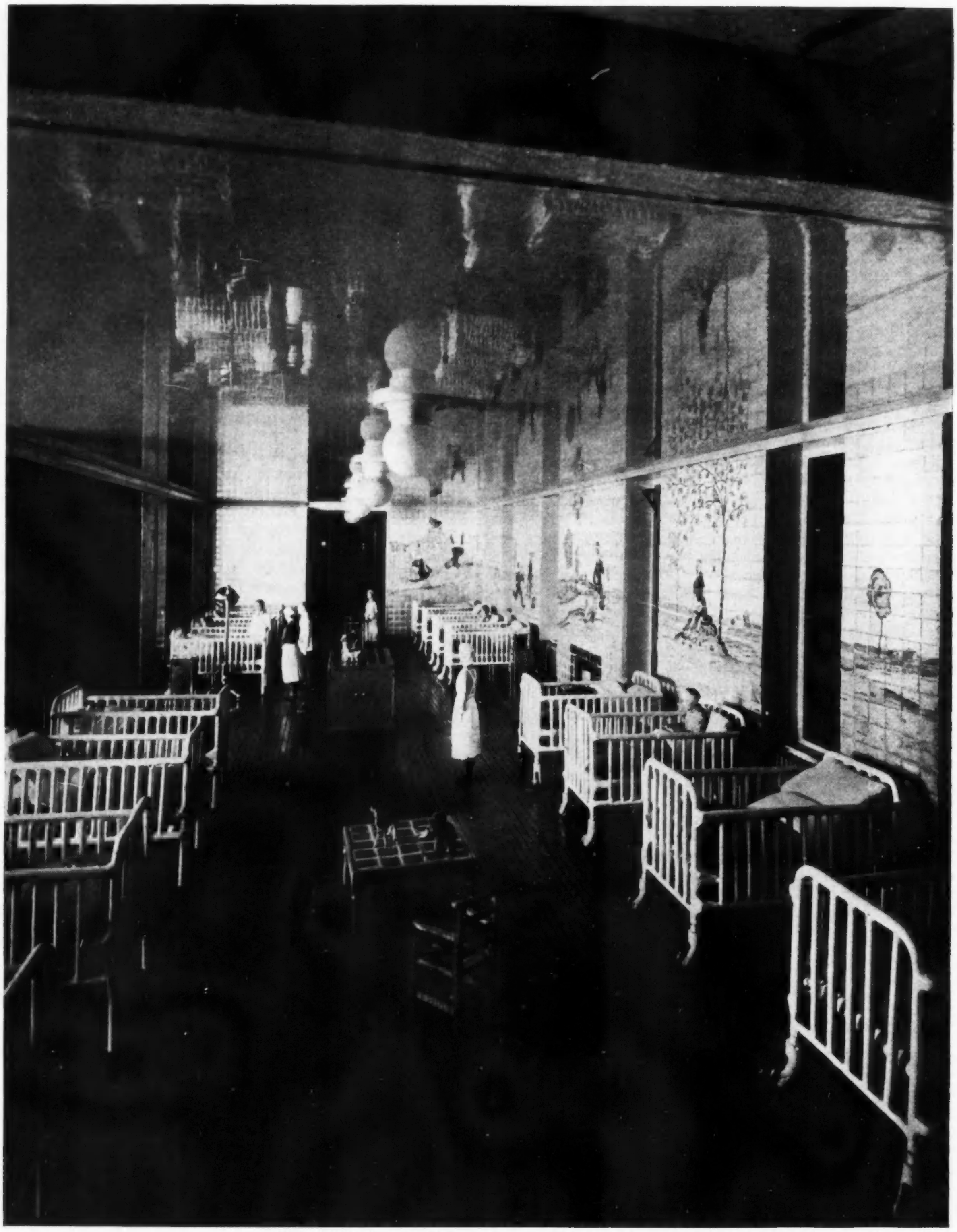
A Paul Nash Drawing

SIR,—I hardly think you will want to continue this correspondence, but it is interesting to hear that Mr. Nash was a pupil of Girtin and Cotman. I was looking at drawings by these two masters only yesterday and if it is still possible to them, I feel they would turn in their graves if they could see their pupil's work.

I am a pupil of Michael Angelo? Poor old Mike!

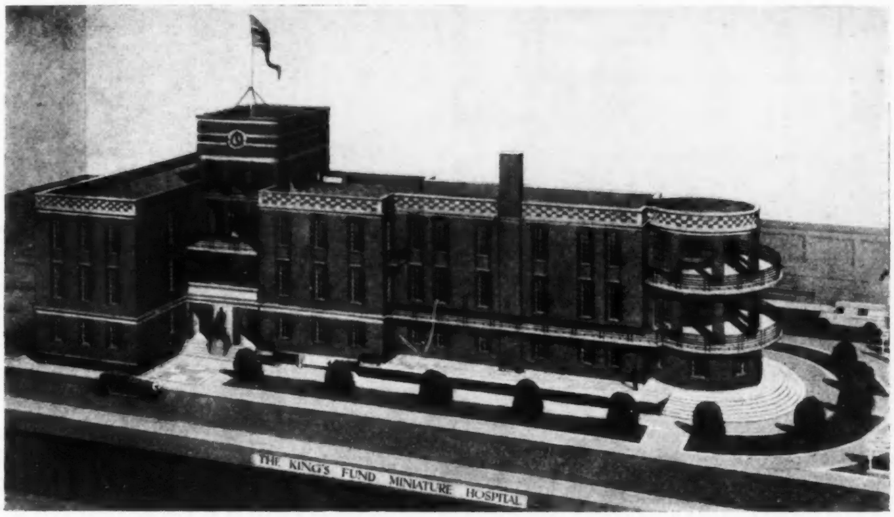
R. W. SAMPSON

AN EXHIBITION OF HOSPITALS: THE KING'S



The children's ward of the miniature hospital, constructed to a scale of ¾-in. = 1 foot. The design was the work of the late Percy Adams, of Adams, Holden and Pearson, and after his death in 1930, his place was taken by his partner, Lionel Pearson. The walls are tiled with thousands of actual model tiles, showing nursery rhymes from original cartoons.

FUND MODEL, DESIGNED BY THE LATE PERCY ADAMS



An exterior view of the model. The whole has been coated with a bricklike face, indicating approximately a million separate bricks and 7,000 separate stones. There are patients' balconies, and the flat roof supplies a roof garden and bears a flagstaff, flying the Union Jack. The tower contains working parts of the lift and clock.

IT was the intention of the Founders of the Building Centre that its exhibition of building materials should be kept in forward motion and underlined at intervals by smaller exhibitions related to specialized forms of building.

THE KING'S FUND MODEL

It is therefore fitting that the King's Fund Miniature Hospital, designed in the first case by the late Percy Adams, F.R.I.B.A., should be on view at the Building Centre to illustrate the interesting advances made in hospital building since the days before Lister made his revolutionary discovery of antiseptics and anæsthetics.

The model is not that of a complete hospital but is in the nature of a composite wing, into which have been compressed as many hospital functions as a model of this sort could carry. The Plan is T-shaped, with administration at one end and a solarium termination at the other, and is of three floors; the top floor is given over to a sixteen-bed children's ward and kitchens; the middle floor to a twelve-bed adult ward and to operating theatres; while the ground floor houses a very complete X-ray department and a board room, secretary's and matron's suite.

The main object of the model is, of course, to raise money. It is therefore not primarily intended for the instruction of architects. Even so, in a model designed by a firm of acknowledged hospital experts and in which every piece of equipment has been made to scale and in photographs quite completely deceives the eye, we cannot fail to be professionally interested in its visible workings.

Being at the Building Centre, the thing does not end there. In the model one can follow the organization of, let us say, the X-ray department. In the various sections of the Building Centre one may examine at full size actual X-ray and other hospital equipment, which, related to the model, is a deal more usefully informative than it might otherwise be. I was particularly struck by a small selection of X-ray photographs which hinted at new uses tending still further to narrow the field of error in building. X-ray photography used to detect flaws in welded steel, for instance, would be another step towards the exact science of building.

The amount of equipment applied to hospital building and finding a place at the Centre would occupy considerable space in the telling. It is enough to say that the hospital model, interesting as it is, provides only half the instruction available.

A TUBERCULOSIS CLINIC

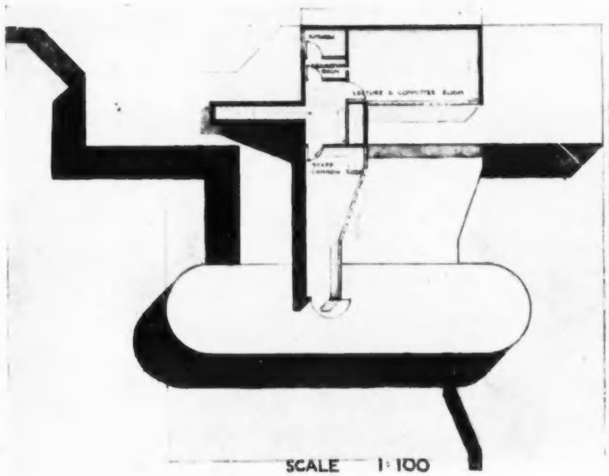
Rather different in kind, but not in function, is the projected Tuberculosis Clinic by Tecton, architects, which has been prepared for Dr. Philip Elman, M.D., M.R.C.P. This extremely interesting design is planned for and nearly exactly clothes a particular clinical organization. The circulation of both patient and staff has been worked out very thoroughly and quite obviously forms the working basis of the plan and section, but that, to the student of hospital planning, is no new thing, even when it is done with the exactness so evidently striven for here; for after satisfying mechanical functions of organization, the architects have gone on to make a fuller use than hitherto has been made of modern methods of construction, which allow of the entrance of a great deal more light to working spaces and of a greater flexibility in plan. The result, as one would expect, and as the architects themselves evidently looked for, is lively and dynamic to a degree, cutting through even the revised conventions of hospital planning like an operator's knife. It is a work of three-dimensional design intended to stand by itself as an isolated unit.

In principle the plan aims at separating the public parts of the clinic from the administrative, avoiding cross-circulation. The arrangement of the waiting room, with complete supervision of the patients by the nurse, is so planned that patients, whether they appear for the first time or have already passed through the stages of identification, etc., follow one another in regular order. The dressing cubicles separate the dressed from the undressed and allow those who have not undressed to pass through directly to the consulting room; and the circulation finishes through a clerks' room where information is collected and tabulated.

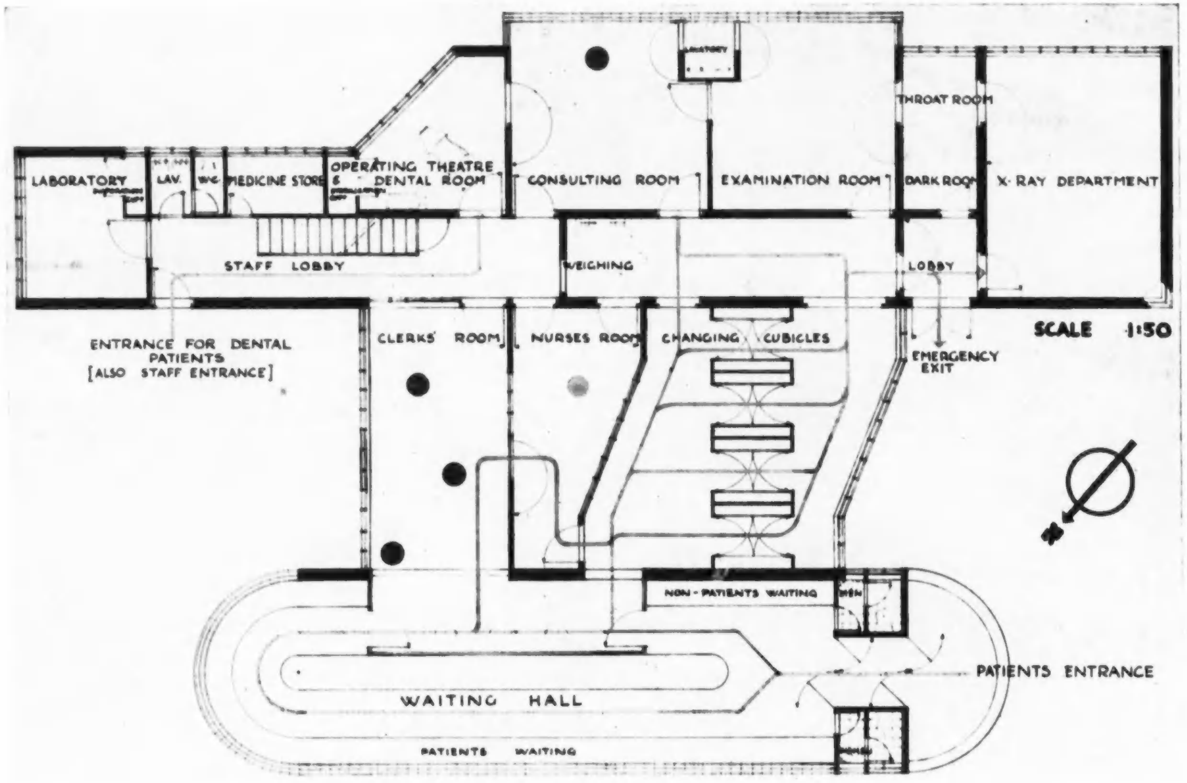
At first-floor level are staff rooms, including a lecture room, which can be adapted for a committee room and is provided with a cinema or lecture lantern. From the point of view of design one feels that the functional basis would have been strained to breaking point had there been any difficulty in achieving the delightful effect of this little nautical "top hamper," which adds so much to the interest of the design. This is a necessary qualification to its so pointedly functional nature.

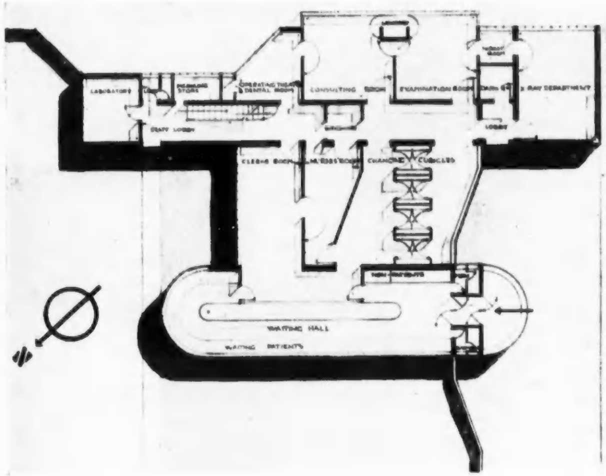
For the rest it would appear to have been the result of a very close collaboration between client and architects, and a refreshing attempt to accept the consequences involved by a strict solution of a set programme in terms of the most fitting materials. E. M. F.

HOSPITALS EXHIBITION: PROJECT FOR A TUBERCULOSIS CLINIC, BY TECTON


LECTURE & COMMITTEE ROOM
SCALE 1:100

PLAN OF THE FIRST FLOOR


LABORATORY
LAV.
W.C.
MEDICINE STORE
OPERATING THEATRE & DENTAL ROOM
CONSULTING ROOM
EXAMINATION ROOM
THROAT ROOM
DARK ROOM
X-RAY DEPARTMENT
STAFF LOBBY
WEIGHING
LOBBY
SCALE 1:50
ENTRANCE FOR DENTAL PATIENTS [ALSO STAFF ENTRANCE]
CLERKS' ROOM
NURSES ROOM
CHANGING CUBICLES
EMERGENCY EXIT
NON-PATIENTS WAITING
PATIENTS ENTRANCE
WAITING HALL
PATIENTS WAITING
N


WAITING HALL
WAITING PATIENTS
N

PLAN OF THE GROUND FLOOR

The underlying principle of the plan is the separation of the public parts of the clinic from the administrative, so that all cross circulation may be avoided.

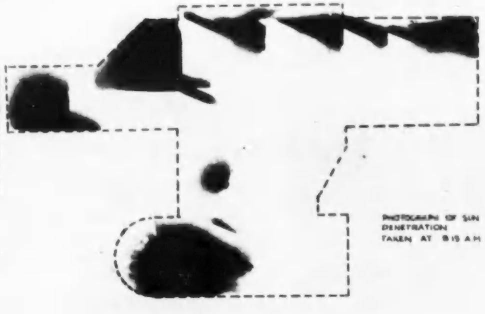
The Waiting Room is designed for complete supervision of the patients by the nurse in charge, and is so arranged that the patients may follow one another easily in regular order. The walls of glass bricks, a not uneconomical form of construction, would create an atmosphere of cheerfulness for the patients. A system of cross ventilation would be provided.

The Clerical and Filing Section concentrates the records of the patients and facilitates cross-reference between the nurse's "history" files, the doctor's "medical" files and the clerk's "financial" files.

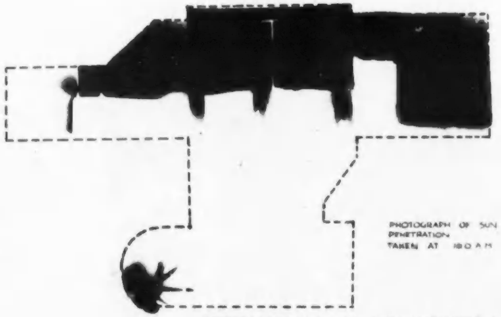
The Dressing Cubicles are so arranged that undressed patients are separated from those dressed, while both may be adequately supervized by the nursing staff. Cross ventilation is provided. A through way is provided for patients who are not required to undress. From the cubicles the patients enter directly into a lobby where a nurse can take weights, temperatures, etc., and can direct them either to the consulting room or to the X-ray department.

The Consulting Room Suite has a S.E. aspect and the maximum of light and air. Staff

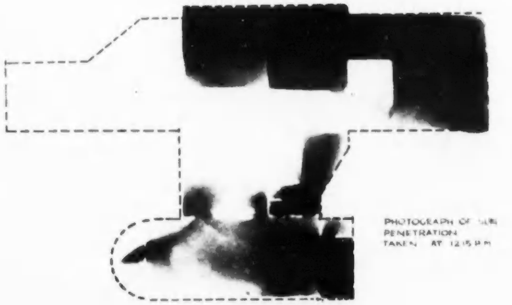
[*Concluded on page 116.*



PHOTOGRAPH OF SUN PENETRATION TAKEN AT 8.15 A.M.



PHOTOGRAPH OF SUN PENETRATION TAKEN AT 10.0 A.M.



PHOTOGRAPH OF SUN PENETRATION TAKEN AT 12.15 P.M.

ALL THE PHOTOGRAPHS OF SUN PENETRATION HAVE BEEN TAKEN FOR THE SUNS POSITION ON JULY 25TH FOR LONDON LATITUDE. THE MODEL WAS PLACED OVER PHOTOGRAPHIC PAPER [BROMO-CHROMATIC]. THE DARK PATCHES REPRESENT DIRECT SUNLIGHT THE GREY PATCHES THE REFLECTED & DIFFUSED LIGHT. REFLECTIONS OF FLOORS HAVE BEEN OMITTED.

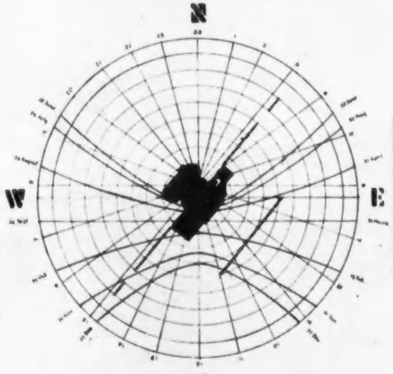
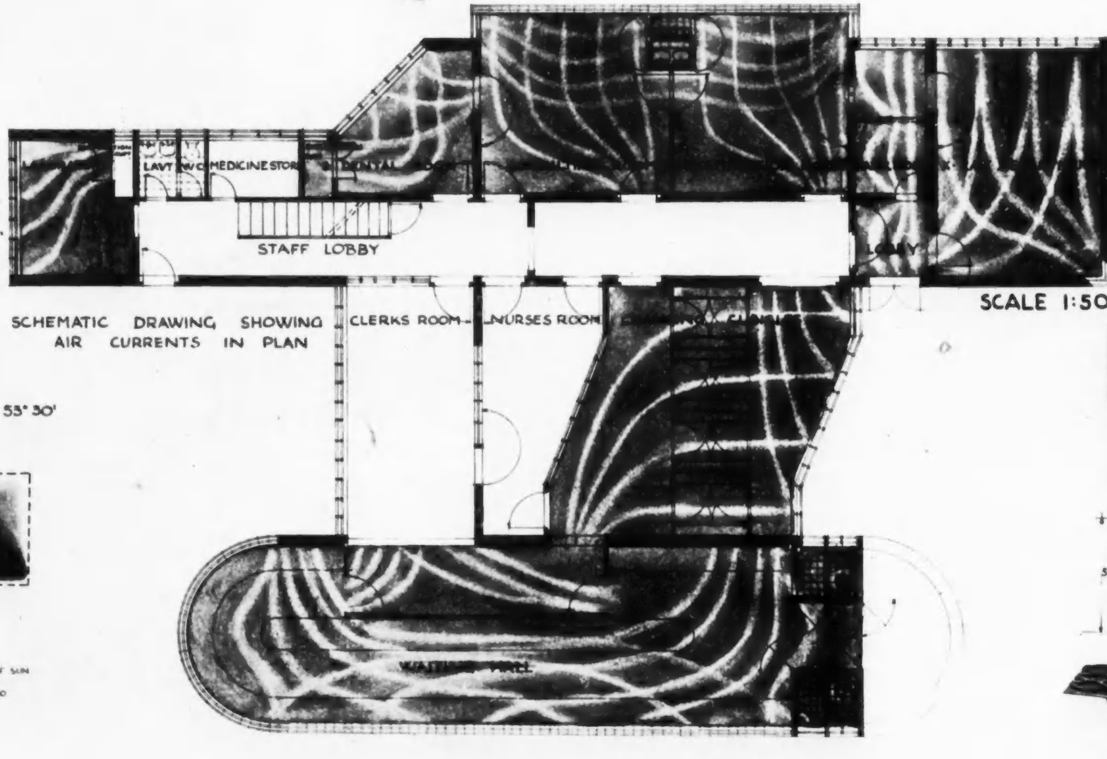


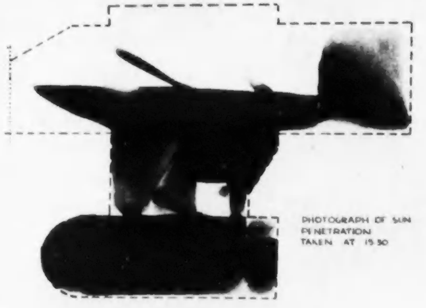
DIAGRAM OF SUNS SHADOW FOR 53° 30'

PROF. BJORNSEN


LAVT
W.C.
MEDICINE STORE
DENTAL ROOM
STAFF LOBBY
CLERKS ROOM
NURSES ROOM
LOBBY
WAITING HALL

SCHEMATIC DRAWING SHOWING AIR CURRENTS IN PLAN

SCALE 1:50



PHOTOGRAPH OF SUN PENETRATION TAKEN AT 15.30

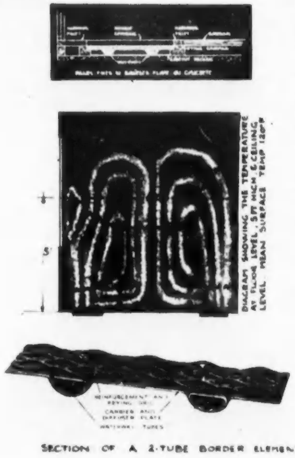
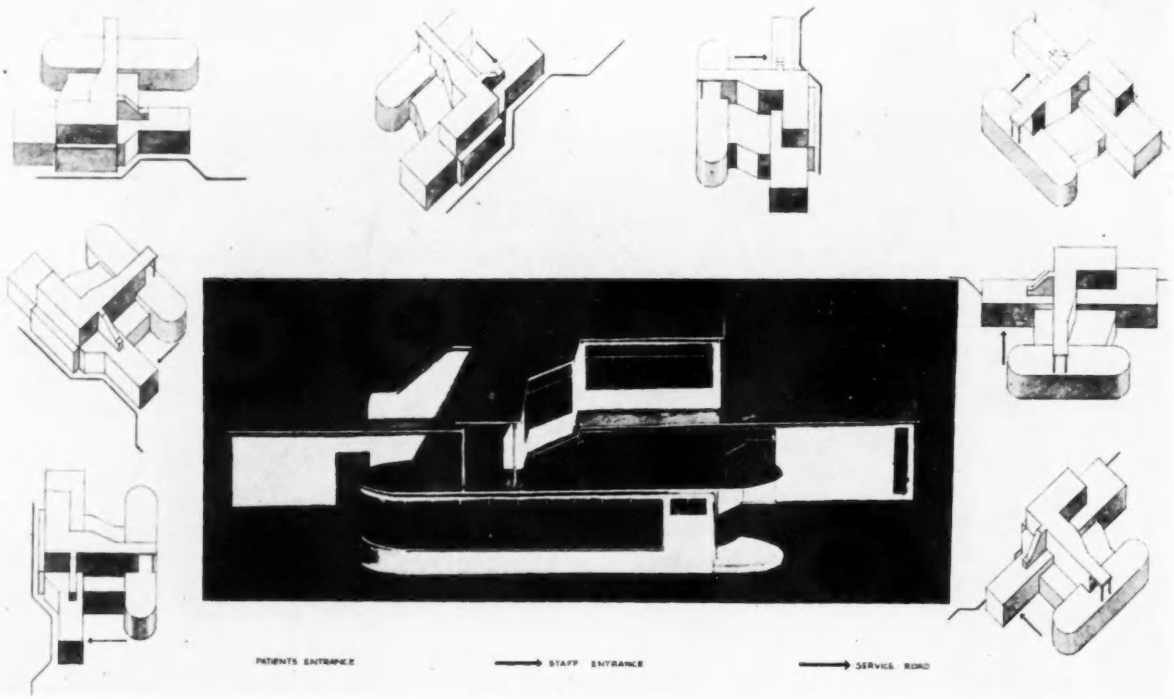

5'
REINFORCEMENT AND KEYING GRID
CARRIER AND DIFFUSER PLATE
WATERWAY TUBES

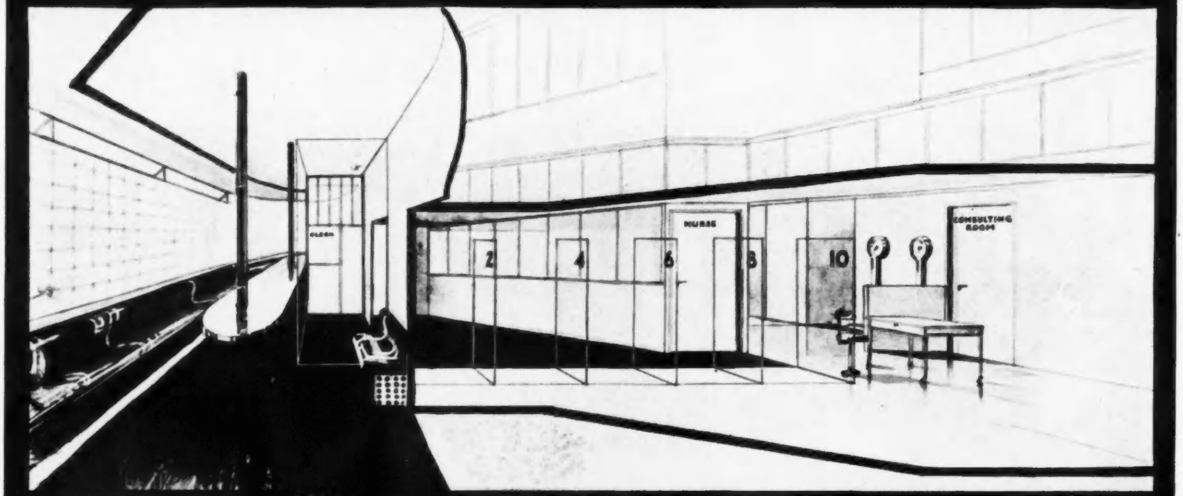
DIAGRAM SHOWING THE TEMPERATURE AT FLOOR LEVEL, 5FT HIGH & CEILING LEVEL. MEAN SURFACE TEMP 120°F

SECTION OF A 2-TUBE BORDER ELEMENT

DETAILS OF 'BORDER' PANEL HEATING SYSTEM

PROJECT FOR A TUBERCULOSIS CLINIC, BY TECTON





SECTIONAL PERSPECTIVE SHOWING WAITING HALL AND DRESSING CUBICLES

circulation is separate from that for patients. Adequate washing facilities are provided for all departments. A small throat room in connection with the examination room and a specially orientated operating theatre (which can also be used as a dental room) complete the suite.

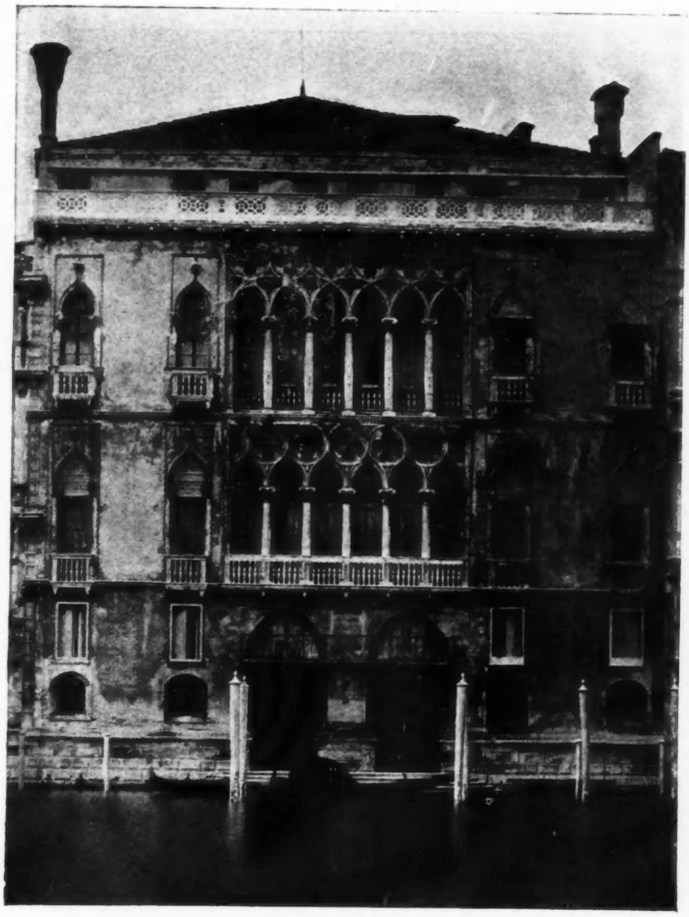
The X-Ray Department is provided with independent access for special X-ray visitors and has a small dark room attached.

A Small Clinical Laboratory is included in connection with the staff section of the clinic.

Staff Rooms on the upper floor comprise a common room, with small kitchen-pantry, having access to the flat roof, and a lecture room designed to be adapted for a committee room. A small projection chamber is attached to this room for cinema or lantern lectures.

The Construction of the building is principally of brick, with parts in glass bricks and in reinforced concrete.

LITERATURE



Palazzo Pisani, Venice. The Venetian palace is planned specially to suit the peculiar conditions of the city. The main front faced the canal, but there was an entrance from the campo at the back. The water front followed more or less one type. On the lower floor a flight of steps rises from the water to the door of the hall. This and the rooms above it run through and have smaller rooms to right and left. The large hall on each floor divides the house in two. These central halls are so lofty that sometimes the side rooms have two stances in the height of the central hall. On the upper floor, the *piano nobile*, a great window with marble tracery is set in a frame that occupies the whole end of the central hall. All the architectural features are in marble, and the wall spaces faced with slabs of marble. The main building is of brick. [*From* ARCHITECTURE.]

THE BOND AND THE FREE

Architecture. By the late Sir Thomas Graham Jackson, Bart., R.A. A Re-issue. London: Macmillan and Co., Ltd. Price 12s. 6d. net.

SIR THOMAS JACKSON wrote this book during his last illness but, we regret to record, died a month after it was finished. He traces the development of European architecture from the days of early Greece up through the ages to the time of the later Renaissance. There are thirty-four chapters and nearly two hundred illustrations. In his introduction he says:

> I remember Dr. Jowett, the Master of Balliol, once citing to me what he said was Ruskin's definition of architecture. It was to this effect: "So we see that architecture is nothing but ornament added to building." The Master quoted from memory, and could not give the reference. I can only hope for Ruskin's sake that he was mistaken: for though this definition has been widely held and may satisfy many who ought to know better, it embodies the most mischievous fallacy by which the proper understanding of the subject has ever been perverted. Even Fergusson, though with some qualification, commits himself to the statement that "Architecture commences when some embellishment is added to the building which was not strictly a structural necessity." As well might it be said that prose passes into poetry with the introduction of metre and verse, though the magnificent rhapsodies of Job and Isaiah teach us that the highest qualities of poetry may be reached without either. In the same way some of the sublimest works of architecture have either no ornament at all, or only such as is of the simplest and most abstract kind. Architecture does not consist in beautifying . . . building, but on the contrary, in building beautifully, which is quite another thing. . . . In a word—architecture is the poetry of construction.

Only two styles of architecture are explained and contrasted by the author: that of freedom and common sense on one hand, that of authority and dogma on the other. These are the two methods open to us, the Bond and the Free, and it depends on our choice what the future history of our art will be.

THE BRAINS BEHIND THE BIG DRUM

Advertising: Its Methods, Preparation and Uses. Issued by the Institute of Incorporated Practitioners in Advertising.

THE dear old lady who once said to a well-known furniture designer: "What wonderful sawmills you must have!" was no sillier than many an educated and intelligent person who says to the professional practitioner in advertising: "I do think some posters are so clever!" or (alternatively): "I hope you don't do those horrible ——— posters!" Advertising to most people means posters, and that means either disfigurement of the countryside or decoration on an Underground Station.

The educated man is usually quite ignorant of what advertising tries to do and what effect it has upon him, and he will seldom admit that he ever reads advertisements. But let him read this little book on the subject, issued by the I.I.P.A., and he will soon realize that all is not posters. He may also begin to understand how he is cajoled into courses that he did not determine himself, how his expenditure is deflected into paths that were chosen for him in some board room, in a firm he has never heard of, at an advertising conference the existence of which he has never even suspected.

In this clearly-written and compactly-planned little book, which can be had for the asking from the Institute of Incorporated Practitioners in Advertising, 3-4, Clements Inn, W.C.2, the structural side of advertising is described and the potency of this force in the economic life of an industrial state can be apprehended. It is a force that can be used for the betterment of life; but nothing in its history has suggested that it is incapable of evil, and for that reason it should be understood by those on whom it operates.

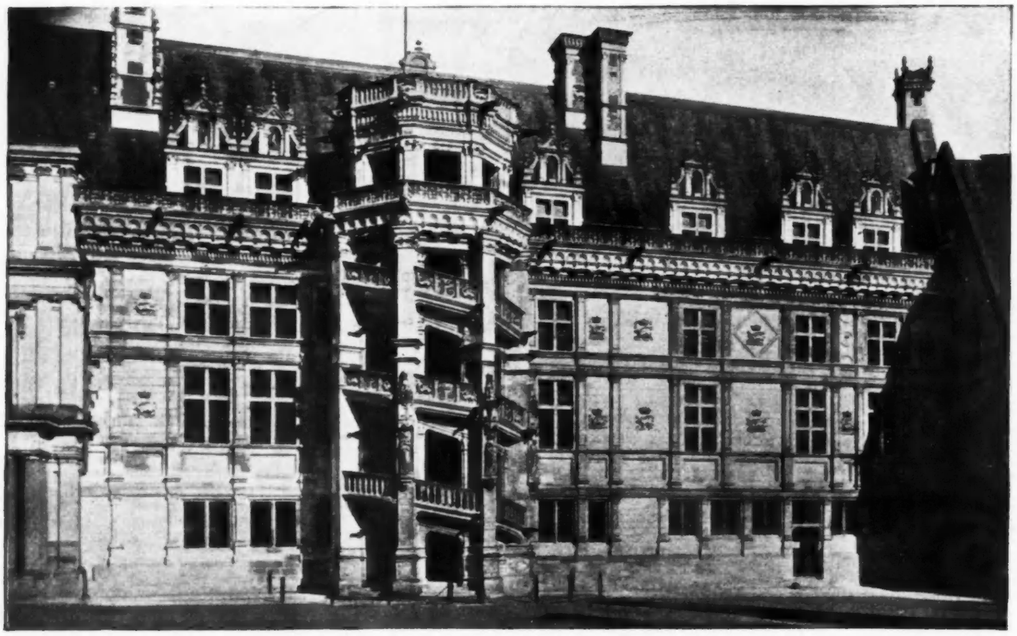
JOHN GLOAG

ANCIENT BRIDGES

The Ancient Bridges of Mid and Eastern England. By E. Jervoise. London: The Architectural Press. Price 5s. 6d. net.

THE problem confronting the Society for the Protection of Ancient Buildings seems to reach gargantuan proportions when one considers that in this little volume, the third of a series, the author makes a survey of over five hundred bridges, and yet confines

THE NORTH FRONT OF THE CHÂTEAU AT BLOIS



Between 1515 and 1519 Francis I built the wing forming the north side of the court of the château at Blois. Its front to the court contains the famous staircase with its open arches, and the north front is faced with open arcades surmounted by a loggia. From this new building, only thirteen years later than the flamboyant east wing of Louis XII, all Gothic detail has disappeared. The walls are divided by pilasters, with capitals and bases in each story, the invention of Alberti at the Palazzo Rucellai half a century before ; the stories are divided by classic entablatures ; and the staircase is enriched with Italian arabesques. And yet the main structure is still Gothic ; the windows have mullions and transomes ; the high roofs have dormers, Renaissance versions of their flamboyant predecessors ; the statues stand in niches in the old way, though the canopies are modelled in the new fashion ; the architect, in short, has worked with the freedom of the Middle Ages. [*From* ARCHITECTURE. *For review, see previous page.*]

himself to the Midlands and Eastern Counties of England. Many of the bridges he describes have already vanished, many have been ruined by ruthlessly utilitarian schemes for road-widening, but many fortunately remain, each one a brand to be saved from the burning.

Mr. Jervoise has had necessarily to condense an abundance of material, but within the scope of a hundred and sixty pages he has given a record of almost every bridge of any importance in this part of England. Many of those standing to-day are the descendants of generations of bridges on the same site, the wooden structures of very early times being superseded by mediæval bridges of stone or brick, which were frequently reconstructed in the eighteenth century, while these too often gave place in the last century to cast iron bridges " of modern design and highly ornamental." Research into the historical records of these bridges shows that our ancestors were loth to accept the responsibility of keeping them in good repair ; when sums were voted for their maintenance it was generally because they were " utterly overthrown," or " washed down by a calamitous flood." But it is modern schemes for road-widening that have had the most disastrous effects on old bridges, and some sad facts are related concerning the masking of old stone work by blue brick or concrete in the present century. However, the building of by-pass roads and wide new bridges has saved them in some places, with the additional advantage that from the new bridge one can often see the full beauty of the old arches a short distance away. One only wonders what will be the fate of these old bridges when they have no further justification for their existence than an æsthetic one.

The author, however, does not set out to solve any problems ; he is recording briefly the results of a comprehensive survey of the conditions of the bridges as they stand to-day, and of the past history of their use and maintenance. He quotes frequently from historical records, and his book is fully illustrated; one's only regret is that the results of such intensive research in a subject of such great interest has had to be confined within so small a compass.

ARCHITECTURAL ASSOCIATION

The Architectural Association have just issued *The Architects' Diary and Technical Reference for 1933*. The volume includes special articles on " The Work of the Building Station," by R. E. Stradling, M.C. ; " Empire Timbers," by Major J. R. Cosgrove, D.S.O., M.C. ; " The Efficient Use of Timber," by Major F. M. Oliphant ; and " The Building Centre," by Maurice E. Webb, F.R.I.B.A.

Books reviewed in these columns may be ordered through The Architectural Press, 9 Queen Anne's Gate, S.W.1.

Granite for Liverpool Cathedral

Irish granite may be used for the new £3,000,000 R.C. Cathedral at Liverpool. Sir Edwin Lutyens, R.A., has made the following statement : " The stone we shall probably use is Irish granite, fawn-coloured, from Wicklow. But whether this stone will actually be used depends on events in Ireland. If there is a tax on the stone, the price will be prohibitive."

Mr. D. Winton Thorpe, A.M.I.E.E., consulting electrical engineer, has removed to 100 Victoria Street, London, S.W.1. Tel. No. : Victoria 6436.

THE SPECIFICATION WRITER: FILLER-JOIST FLOORS

IN filler-joist floors the strength due to the joint action of the steel beam and the surrounding concrete received official recognition last year. The extravagance of considering the surrounding concrete as a dead load on the steel has been abandoned, so that the advantages of this old and simple type of floor are now available with greater economy than formerly.

The first report of the Steel Structures Research Committee to the Committee of the Privy Council for Scientific and Industrial Research contains recommendations for the use of filler-joist floors, and these, with slight modifications, have been included in the British Standard Specification No. 449–1932 and the L.C.C. Code of Practice for the use of Structural Steel in Building, 1932.

Possibly full advantage is not being taken of the official recognition of filler-joist floors in these codes because the formulæ for the recommended method of calculation are not given.

This article is intended to supply this deficiency.

The recommendations, as contained in the British Standard Specification, are :—

(1) The strength of filler-floor beams entirely encased in a concrete floor slab may *be estimated on the basis of the combined moment of inertia of the steel and surrounding concrete*, neglecting the strength of concrete in tension and taking the limit of flexural stress in the steel at *9 tons per square inch.*

(2) If such floor beams are spaced further apart than *six times the thickness of the concrete floor slab* suitable transverse reinforcement shall be provided.

(3) The span of any filler-floor beam encased in concrete shall not exceed *32 times the depth* measured from the bottom flange of the floor beam to the top surface of the concrete slab.

Clause (2) is not included in the L.C.C. Code of Practice

Quality A steel is specified.

The italics are mine.

Referring to Clause (1), if I may judge from my correspondence, it appears that either the method of calculating the combined moment of inertia of a steel I-beam and the surrounding concrete is not well known or it is supposed to be an involved mathematical process.

The equivalent moment of inertia method, by which the calculation may be made, may not be as well known as it deserves to be, but its name is the most formidable part of it, and I hope to show by details and examples that no more than arithmetical rules are required for its use.

Only three formulæ are needed. They will be explained fully and are printed here for reference.

The first formula is for the position of the neutral axis ; it is the usual formula for reinforced concrete as in the L.C.C. Regulations :—

$$n=(\sqrt{m^2\cdot r^2+2m\cdot r}-m\cdot r)d \quad . \; . \; . \; . \; . \; . \; . \quad (1)$$

The second formula is for the combined moment of inertia :—

$$I=\frac{b\cdot n^3}{3m}+Ib+A(d-n)^2 \quad . \; . \; . \; . \; . \; . \; . \; . \quad (2)$$

The third formula is for the safe load in tons for a given span in feet :—

$$W=\frac{6I}{L(db+i-n)} \quad . \; . \; . \; . \; . \; . \; . \; . \; . \; . \quad (3)$$

Example No. 1

Steel I-beam

= 4 ins. × 3 ins. × 10 lb. per foot.

A = area = 2·94 sq. ins.

Ib = maximum moment of inertia = 7·786.

Concrete :

ds = slab depth = 6 ins.

b = breadth = $6ds$ maximum = 36 in.

d = effective depth .. .. ⎫ $d=i+\frac{1}{2}db$

i = inset or cover .. .. ⎬ $=1\cdot0+2\cdot0$

db = depth of I-beam .. ⎭ $=3\cdot0$ ins.

$b\cdot d$ = the area of the effective concrete $=36\cdot0\times3\cdot0=108\cdot0$ sq. ins.

Position of Neutral Axis

Use Formula (1), in which :—

n = the distance from the top of the slab to the neutral axis N—A.

m = the modular ratio, assumed = 15.

d = the effective depth of the concrete (see above).

r = the ratio of the area of the I-beam to the area of the effective concrete $=A\div b\cdot d$ $=2\cdot94\div108=0\cdot0272$.

$m\cdot r=15\times0\cdot0272=0\cdot408 \quad 2m\cdot r=0\cdot816.$

$m^2=225 \quad r^2=0\cdot00074 \quad m^2\cdot r^2=0\cdot1665.$

$$\begin{aligned} n&=(\sqrt{m^2\cdot r^2+2m\cdot r}-m\cdot r)\,d \quad . \; . \; . \; . \; . \; . \quad (1)\\ &=(\sqrt{0\cdot1665+0\cdot816}-0\cdot408)\,3\cdot0.\\ &=(\sqrt{0\cdot9825}-0\cdot408)\,3\cdot0\\ &\qquad=(0\cdot9912-0\cdot408)\,3\cdot0\\ &=0\cdot5832\times3\cdot0=1\cdot75 \text{ in.}\end{aligned}$$

Combined Moment of Inertia

Use Formula (2) :—

The only terms in this formula which have not yet been defined are $(d-n)$ = the distance from the middle point of the I-beam to the neutral axis N—A, and I = the combined moment of inertia.

$$\begin{aligned} I&=\frac{b\cdot n^3}{3m}+Ib+A(d-n)^2 \quad . \; . \; . \; . \; . \; . \; . \; . \quad (2)\\ &=\frac{36\times1\cdot75^3}{3\times15}+7\cdot786+2\cdot94\times1\cdot25^2.\\ &=4\cdot288+7\cdot786+4\cdot594=16\cdot668.\end{aligned}$$

Safe Load

Use Formula (3) :—

This formula is for the total uniformly distributed safe load, including the weight of the slab, for the special conditions of 9 tons per square inch tensile stress in the steel I-beam (see Clause 1) and the length of the effective span of the slab in feet.

W = safe load as above.

L = span in feet as above. Assume L = 12 ft.

$$\begin{aligned} W&=\frac{6I}{L(db+i-n)} \quad . \; . \; . \; . \; . \; . \; . \; . \; . \; . \quad (3)\\ &=\frac{6\times16\cdot668}{12(4+1-1\cdot75)}=\frac{100}{39}=2\cdot56 \text{ tons.}\end{aligned}$$

Example No. 2

Steel I-beam

= 4 ins. × $1\frac{3}{4}$ in. × 5 lb. per foot.

A = area = 1·47 sq. ins.

Ib = maximum moment of inertia = 3·664.

Concrete :

ds = slab depth = 3 ins.

With transverse reinforcement :

b = breadth = 30·0 ins.

d = effective depth .. .. ⎫ $d=i+\frac{1}{2}db$

i = inset or cover .. .. ⎬ $=1\cdot0+2\cdot0$

db = depth of I-beam .. .. ⎭ $=3\cdot0$ ins.

$b\cdot d$ = the area of the effective concrete $=30\cdot0\times3\cdot0=90\cdot0$ sq. ins.

Position of Neutral Axis

Use Formula (1) :—

$r=A\div b\cdot d=1\cdot47\div90=0\cdot0163.$

$m\cdot r=15\times0\cdot0163=0\cdot2445 \quad 2m\cdot r=0\cdot489.$

$m^2=225 \quad r^2=0\cdot000266 \quad m^2\cdot r^2=0\cdot0598.$

$$\begin{aligned} n&=(\sqrt{m^2\cdot r^2+2m\cdot r}-m\cdot r)d.\\ &=(\sqrt{0\cdot0598+0\cdot489}-0\cdot2445)\,3\cdot0.\\ &=(0\cdot7408-0\cdot2445)\,3\cdot0=0\cdot4963\times3\cdot0\\ &\qquad=1\cdot5 \text{ in.}\end{aligned}$$

Combined Moment of Inertia

Use Formula (2) :—

$$\begin{aligned} I&=\frac{b\cdot n^3}{3m}+Ib+A(d-n)^2 \quad . \; . \; . \; . \; . \; . \; . \; . \quad (2)\\ &=\frac{30\times1\cdot5^3}{3\times15}+3\cdot664+1\cdot47\times1\cdot5^2.\\ &=2\cdot25+3\cdot664+3\cdot307=9\cdot22.\end{aligned}$$

Safe Load

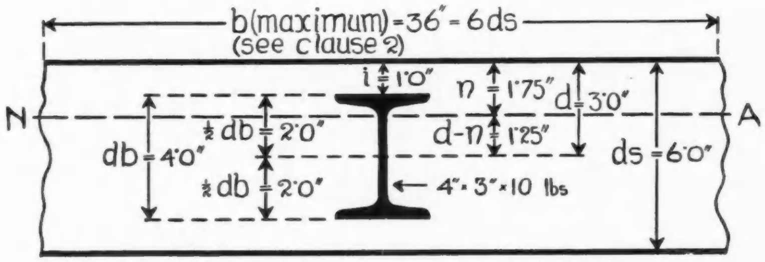
Use Formula (3) :—

$$\begin{aligned} W&=\frac{6I}{L(db+i-n)} \quad . \; . \; . \; . \; . \; . \; . \; . \; . \; . \quad (3)\\ &=\frac{6\times9\cdot22}{12(4+1-1\cdot5)}=\frac{55\cdot32}{42}=1\cdot32 \text{ tons.}\end{aligned}$$

Comparisons

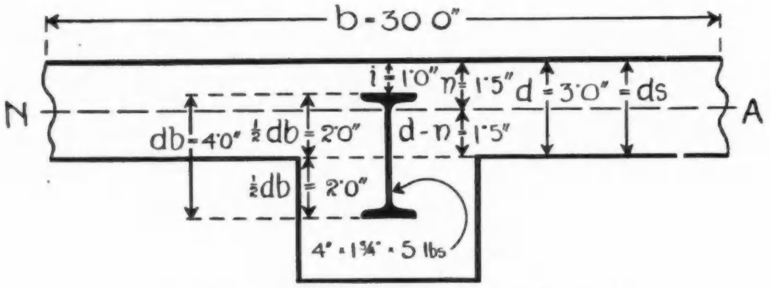
Consideration may now be given to the economy permitted by taking the joint action of the concrete and steel into account instead of assuming the concrete to be a dead load supported entirely by the steel.

For this purpose comparisons will be made between the strengths of the slabs of Examples 1 and 2 as calculated and the strength of the steel alone at the



Without transverse reinforcement

Fig 1.



With transverse reinforcement
Fig. 2.

usual working stress of 8 tons per square inch :—

12 ft. span.
Slab of Example No. 1.
(a) Safe load, including weight of slab.

	Tons.
Slab No. 1 .. .. Safe load=	2·56
4 ins. × 3 ins. I-beam .. „ „ =	1·73
Increase for slab .. .. =	0·83
	or *48 per cent.*

(b) For the superimposed load.

	Lb.
Weight of concrete, Slab No. 1 =36 sq. ft. at 70 lbs. .. ..=	2,520
Weight of I-beam, 4 ins. × 3 ins. = 12 ft. at 10 lb. .. ..=	120
Total weight of slab=1·18 tons=	2,640

Deduct the weight of the slab from each of the above safe inclusive loads and divide the remainder by the floor area of 36 sq. ft., then the balances available for superimposed load, weight of plaster, etc., are :—

For Slab No. 1, 86 lbs. per sq. ft. live load is allowable.

For I-beam, 4 ins. × 3 ins., 34 lb. per sq. ft. live load is allowable.

On this basis the increase of strength in favour of the slab is *more than 150 per cent.*

Slab of Example No. 2.
(c) Safe load, including weight of slab.

	Tons.
Slab No. 2 .. .. Safe load=	1·32
4 ins.=1¾ ins. I-beam .. „ „ =	0·81
Increase for slab .. .. =	0·51
	or *63 per cent.*

(d) For the superimposed load.

	Lbs.
Weight of concrete, Slab No. 2 =30 sq. ft. at 35 lb. .. ..=	1,050
Weight of rib, Slab No. 2=12 ft. at 22·4 lb. .. ..=	268
Weight of I-beam, 4 ins. × 1¾ in. =12 ft. at 5 lb. .. .. ..=	60
Total weight of slab=0·62 ton =	1,378

Deduct weight of slab as before and divide by floor area of 30 sq. ft., then the balances available for superimposed load, weight of plaster, etc., are :—

For Slab No. 2, 52 lb. per sq. ft. live load is allowable.

For I-beam, 4 ins. × 1¾ ins., 14 lb. per sq. ft. live load is allowable.

On this basis the increase of strength in favour of the slab is *more than 260 per cent.*

Suitability of Slabs for Floor Loads

In the new British Standard and L.C.C. Codes there are the following floor loads :—

	Lb. per sq. ft.
Rooms for domestic purposes, hotel bedrooms, hospital rooms and wards	40
Offices, floors above entrance floor ..	50
Offices, entrance floor and floors below entrance floor	80
Churches, schools, reading-rooms, art galleries and similar uses	70
Retail shops and garages for cars of not more than 2 tons dead weight ..	80

As calculated for the combined strength, Slab No. 1 is, therefore, suitable for the 70 and 80 lb. per square foot superimposed floor loads, depending on the weights of the floor finishings ; and, similarly, Slab No. 2 is suitable for the 40 and 50 lb. per square foot loads.

An important point to be noted is that, under the old method of considering the concrete as a dead load on the steel, neither of the slabs would have been suitable for the lightest new load of 40 lb. per square foot.

The new Codes of Practice have revived interest in filler-joist floors, and now that they can be designed on an economical basis it is probable that there will be a return to their frequent use.

W. BASIL SCOTT, M.I.STRUCT.E.

LAW REPORTS

ARCHITECT'S CLAIM FOR SERVICES RENDERED

King v. *Traders Markets, Ltd.—King's Bench Division. Before Mr. Justice Macnaghten*

THIS was an action by Mr. William James King, an architect, of 5, Great James Street, Bedford Row, London, against Traders Markets, Ltd., The Mall, Ealing, for the payment of £1,050 for services rendered in connection with the preparation of plans, measurement and specifications for the proposed building of flats in High Street, Fulham, during 1930.

Defendants by their defence denied liability for the sum claimed, but agreed that plaintiff was entitled to twenty-five guineas, which had been paid already to plaintiff for certain preliminary drawings to enable the builders concerned to give an estimate. It was further agreed that if the estimate was acceptable, plaintiff should carry out all the necessary surveys, and draw up plans for £1,500, but the construction scheme had been abandoned in October, 1930. Plaintiff was, therefore, not required to undertake the work of supervising the actual construction. It was denied that plaintiff was entitled to a *quantum meruit* and alternatively, if he was so entitled the fees he had charged were excessive.

Mr. Le Quesne, K.C., and Mr. R. Sullivan appeared for plaintiff, and Mr. St. John Micklethwaite, K.C., with Mr. W. Price, were for defendants.

After hearing the evidence, his lordship gave judgment for defendants, holding that the work for which plaintiff claimed to be paid, was done by him gratuitously, and with the object of obtaining the contract, if the scheme of defendants had matured.

SINKING FUND PAYMENTS

St. James's and Pall Mall Electric Light Co., Ltd., v. *City of Westminster Assessment Committee. Before Lords Justices Scrutton, Greer and Slesser*

THIS was an appeal by the City of Westminster Assessment Co. from a judgment of a King's Bench Divisional Court consisting of the Lord Chief Justice and Justices Avory and Macnaghten, who had allowed an appeal of the St. James's and Pall Mall Electric Light Co., Ltd., on a case stated by consent under section 40 of the Valuation (Metropolis) Act, 1869, after notice on appeal to Quarter Sessions.

The point raised by the appeal was as to the treatment for purposes of rating of the sinking fund payments which the company—like other electrical undertakings—are required by law to provide out of their revenues.

The company claimed that their rating in respect of their hereditaments—land, buildings, machinery, mains, etc.—should be reduced from £110,001 gross and £55,001 rateable value, to £72,664 and £36,332 respectively. The Assessment Committee reduced the gross and rateable values to £89,922 and £44,961 respectively.

The undertaking is to be transferred to the Joint Electricity Authority in 1971 and the matter arose with regard to the sinking funds.

The company are required by their act to form two sinking funds by setting aside out of their revenue such sums as with interest thereon would be sufficient to liquidate the value of the physical assets to be transferred and certain other capital expenditure. The company did set aside sufficient contributions to provide the sinking funds which on the transfer of their undertaking to the Joint Electricity Authority were to be retained by the company.

The company argued that, in arriving at the gross and rateable value of the hereditaments, the sums which they were required to set aside for the sinking funds should be excluded from their receipts or allowed as a reduction therefrom.

The Divisional Court came to the conclusion that in arriving at the rateable value of the undertaking on the profits basis, the sinking fund payments must be deducted from the profits, since a hypothetical tenant would not pay a higher rent to collect revenue from which he could derive no benefit.

Mr. Tyldesley Jones, K.C., argued the case for the applicants and Mr. A. T. Miller, K.C., for the respondents.

The Court held that the King's Bench Divisional Court came to a wrong conclusion, that the question in the special case must be answered in favour of the Assessment Committee, and that the appeal must be allowed with costs there and below.

Lord Justice Scrutton said in his view the undertaking or the owners did get the benefit of the sinking funds in either repaying borrowed capital or replacing shareholders' capital. It was true that the Electricity Authority would get the benefit of the sinking funds when the authority in 1971 got the undertaking free. That was because the consumers, out of standard prices, before 1971 would have paid sums which were by statute to go to form the sinking funds which would relieve the authority from the necessity of replacing the undertakers' capital by payment of a price in 1971, but the owner, undertaker, or hypothetical landlord also got the benefit of those payments when they would be included in the balance coming to him in the nature of rent.

Lords Justices Greer and Slesser concurred.

SOCIETIES AND INSTITUTIONS

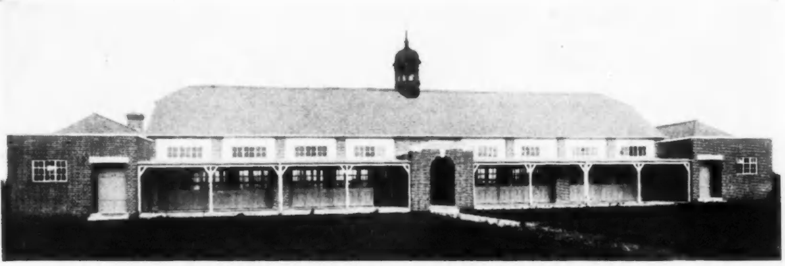
ENGINEERING EXHIBITION AT MULTAN

An engineering exhibition was held at Multan, Punjab, India, in November last. This exhibition—the first of its kind to be held in that country—was arranged by Iqkal Narain, B.A., Civil Engineer (Roorke), at the request of various officials of Multan. The exhibits included models of bridges, roads, new and old houses, etc.

HOUSES AND QUALIFIED DESIGNERS

The fifty-fifth exhibition of the Athenæum Graphic Club, Manchester, was opened by Mr. J. Hubert Worthington, F.R.I.B.A., on Tuesday of last week. In the course of his address, he said : *When you want to be cut open to have your appendix cut out you don't go to the plumber. If you want a house or any other skilled work you must go to the qualified designer. Yet of ten houses built only one is designed by a qualified architect. It is a dreadful state of affairs. It applies equally to lamp standards, tramway shelters, and receptacles for litter. When you have a telephone box designed by a Giles Gilbert Scott you get a tremendous improvement. Of course, Manchester only gets the old ones palmed off on to it. They assume that it doesn't matter what you send to Manchester.*

NEW SCHOOL IN CHESHIRE

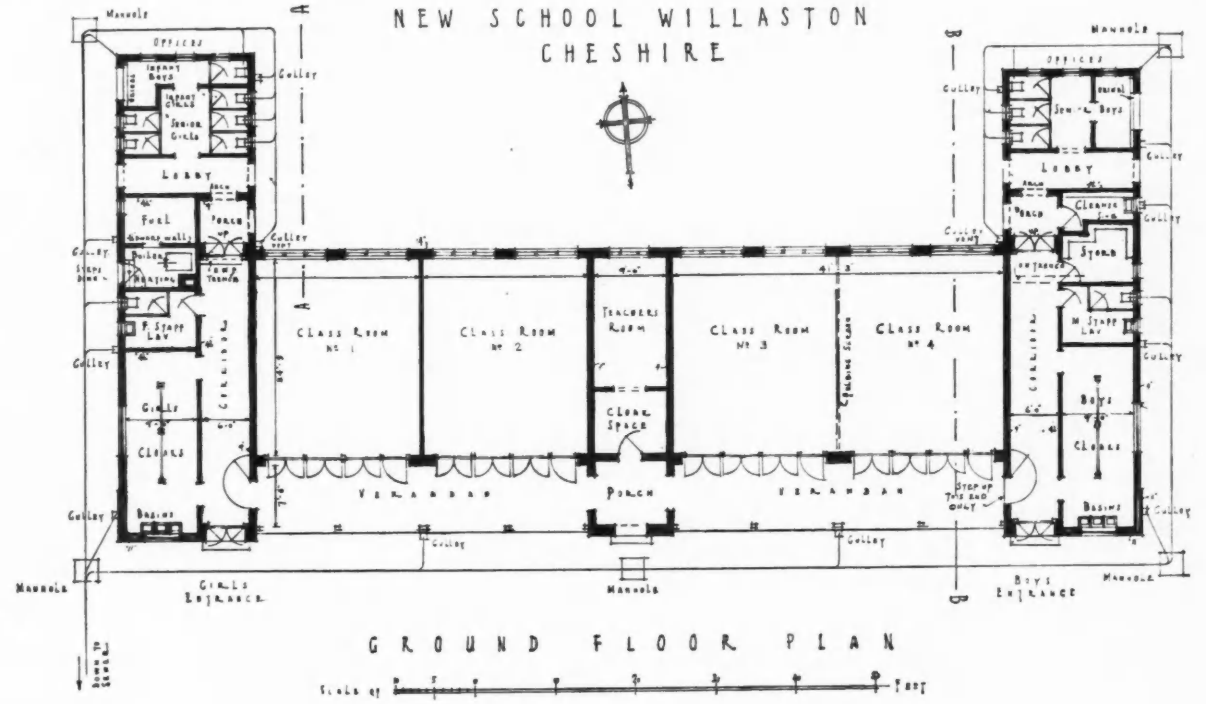


DESIGNED BY WILLINK AND DOD

Christ Church Schools replace an old and worn-out stone building standing in the centre of the pleasant Wirral village of Willaston. It is hoped that the old site will be turned into the village green, a purpose for which it is most admirably suited, the village inn and smithy being already in position. Indeed, it would seem that the old school had originally been built on the village green and that now there is a reversion to the old order.

The building stands some little distance back from the main road and adjoins the new public playing fields. It is planned on semi-open-air lines, there being four classrooms for 40 pupils each. On the south side runs a veranda, in the shelter of which, either from sun or rain, the large doors can be opened the whole width of the classrooms. Clerestory windows above the veranda roof enable a desirable amount of sunshine to enter the rooms. They also provide good cross-ventilation.

There is no assembly hall, but two of the classrooms are separated by a folding screen and so serve that purpose. The sanitary accommodation is contained within the building but is cut off by a ventilated lobby. The cupola shown on the photograph was not included in the original contract, but it is hoped that it will be built when funds are forthcoming. Meanwhile, it is somewhat of an achievement, in these days, for a village church to have entirely rebuilt its schools on the most modern lines. The cost of the new building, excluding only furniture, worked out at £28 10s. per seat, a low figure, since the school is a small one.


NEW SCHOOL WILLASTON
CHESHIRE
Manhole
Offices
Infant Boys
Infant Girls
Senior Girls
Lobby
Fuel
Porch
Boiler
Heating
F. Staff Lav
Corridor
Girls
Cloaks
Basins
Gulley
Verandah
Class Room No. 1
Class Room No. 2
Teachers Room
Cloak Space
Porch
Class Room No. 3
Folding Screen
Class Room No. 4
Senior Boys
Lobby
Cleanse
Store
Entrance
M. Staff Lav
Boys
Cloaks
Basins
Step up this end only
Girls Entrance
Boys Entrance
A
B
GROUND FLOOR PLAN
Scale of Feet

TRADE NOTES

The organ at the Gaumont Palace, Lewisham, illustrated on pages 106-109 of this issue, was installed by The John Compton Organ Co., Ltd., of Chase Road, North Acton, N.W.10. Thirty-four Compton organs have been installed in Gaumont Palace Theatres in various parts of the country. The Compton Co. are now erecting a four-manual organ for the Concert Hall at the B.B.C., Portland Place, W.1.

*

The Egyptian State Railways, Telegraphs and Telephones, has placed with Messrs. Marryat & Scott, Ltd., a large order for lifts for Tanta Station, Egypt. There was considerable competition from Continental and American firms.

*

Early last year, extensions were made at the factory of Messrs. Electrolux, Ltd., at Luton, to increase manufacturing facilities. A bigger extension scheme has now been embarked upon, embracing the building of new offices, and the increase of productive capacity by utilizing the space occupied by the present offices for manufacturing purposes. A new receiving depot and a raw materials store, as well as an extension to the finished stores, will accommodate many additional thousands of the company's products. More employment for people in Luton and its environs will accrue from the scheme. It is interesting to recall that, in his speech at the Coming-of-Age Dinner of the British Commercial Gas Association, in Leeds, on September 28, Prince George, referring to the various uses to which gas is applied, said: "I was perhaps most interested of all to see it being used for refrigeration. Using heat to produce cold is certainly rather surprising." Electrolux, Ltd., are the sole manufacturers of gas refrigerators in this country.

*

The Cement Marketing Company, Ltd., has arranged a series of demonstrations on the use of Retardo to be given at the following towns:—Leeds, Jan. 11; Manchester and Liverpool, Jan. 12; Newcastle, Jan. 13; Edinburgh and Glasgow, Jan. 16; Sheffield and Nottingham, Jan. 18. Full particulars are obtainable from the London Office of the Company, Portland House, Tothill Street, S.W.1.

*

The Edison Swan Electric Co., Ltd., has secured a large contract for the supply of telephone switchboard lamps to the G.P.O.

*

The name of the Prior Oil Burner, Ltd., combustion engineers, has been changed to Prior Burners, Ltd. No other change has been made, the directorate and constitution of the company remaining as hitherto.

Messrs. Holophane, Ltd., of Elverton Street, Westminster, S.W.1, have recently issued a four-page coloured leaflet illustrating a new series of coloured lighting fittings of modern design, suitable for drawing-rooms, restaurants, ballrooms, theatres, cinemas, etc. The standard colours are amber, rose-pink and ivory, and the standard finish of the metalwork is natural bronze.

*

The contract for roofing the new Grand Stand at Kempton Park Race-course has been secured by Messrs. Vitreflex, Ltd. The former grand stand, which is replaced by the new building, was destroyed by fire recently. The new stand will be ready for opening by the Easter Meeting, 1933.

*

The Tunnel Portland Cement Company, Ltd., have removed their offices from West Thurrock to London. Their new address is as follows: Victoria Station House, Victoria Street, London, S.W.1. Telephone: Franklin 6164 (7 lines).

*

Messrs. E. Pollard & Co., Ltd., of St. John Street, E.C., paid their final preference dividend on January 1 last, making 7 per cent. for the year 1932.

*

Two of the three staircases in the section of the Prudential Company's building in Holborn, now in course of erection, are to be covered with rubber. These staircases are made of special steel casings which are filled with cement, and the rubber treads are being specially moulded in one piece—tread, nosing and riser—conforming to the exact profile of the stairs.

There is approximately an area of 5,000 sq. ft. of treads, nosings and risers and 1,250 sq. yds. of landings to be covered. This work was placed with Dunlop Rubber Co., Ltd., by Messrs. Trollope and Colls, Ltd. The architects are Messrs. Joseph.

*

Messrs. Benham and Sons, Ltd., of Wigmore Street, W.1, have secured the order for the cafeteria equipment of the Sharikoposhipnick Works in Moscow, claimed to be the largest ball bearing factory in the world. This will be the first equipment of its kind fitted up in Russia, the scheme and specification being drawn up by a consulting engineer from Chicago.

*

BANK NEWS

The Directors of the Midland Bank, Ltd., report that, after making an appropriation towards bad and doubtful debts (all of which have been fully provided for) the net profits for the year 1932 amount to £2,019,142 which, with £850,016 brought forward, makes £2,869,158, out of which appropriations amounting to £1,154,880 have been made.

The net profits of Westminster Bank, Ltd., for 1932, after providing for rebate and income tax, and after appropriations to the credit of contingency accounts, out of which accounts full provision for bad and doubtful debts has been made, amount to £1,495,172. This sum, added to £431,256 brought forward from 1931, leaves available the sum of £1,926,428.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, and some of the sub-contractors for the buildings illustrated in this issue:

Converted Farmhouse, Chanderhill, Chesterfield (pages 103-105). General contractors, G. F. Kirk, Ltd. Sub-Contractors: E. J. Allington & Co., panelling and cupboards; Louis Dernier and Hamlyn, electric fittings; Taylor, Whiting and Taylor, Ltd., wrought iron gates; Freeman and Son, roof of Cotswold stone; Henry Hope and Sons, Ltd., steel casements; Grindrod & Co., heating apparatus; Bratt Colbran & Co., fires; Eyre and Sons, Ltd., sanitary goods; Wing and Webb, ironmongery.

Gaumont Palace, Lewisham (pages 106-109 and Supplement). General contractors: McLaughlin and Harvey, Ltd. Sub-contractors, H. Young & Co., Ltd., steelwork; J. Jeffreys & Co., heating and ventilating; Jenson & Co., organ console lift and curtain control; Bulman Jupiter Screen Co., Ltd., perforated screen; Troughton and Young, Ltd., electrical engineers; Knight & Co., Ltd., fire curtain; Clark and Fenn, Ltd., plasterwork and decoration and metal bracketing; Imperial Lighting Co., electric signs; Strand Electric and Engineering Co., Ltd., stage lighting equipment; Rimmel, Ltd., spraying essence; Frank Burkitt, Ltd., stage and operating box lights; F. H. Pride, electric light fittings, etc.; Lawford Asphalte Co., Ltd., asphalt; Garton and Thorne, Ltd., canopies; Alfred Manchester, general haulage; The John Compton Organ Co., Gaumont super organ; W. W. Turner, Ltd., theatre seats; Claude-General Neon Lights, Ltd., neon signs; W. H. Earley, plumbing and cast iron drainage, etc.; A. E. Davis, ironmongery; William Boyer and Sons, Ltd., sand and ballast; London Electric Wire Co. and Smiths, Ltd., Lewcos cables; Edison Swan Electric Co., Ltd., electric lamps; Chloride Electrical Storage Co., electrical work.

Christ Church School, Willaston-in-Wirral, Cheshire (page 121). General contractors: Henry Norman and Son, who were also responsible for the plaster and joinery. Sub-contractors: Hooton Brickworks, bricks; Liverpool Artificial Stone Co., artificial stone; Killick and Cochran, central heating; W. Liley & Co., electric wiring; Lowe Bros., casements; Campbell and Mabbs, window furniture; North of England Furnishing Co., rolling shutters.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at CATERHAM: Two houses, Manor Avenue, for Messrs. Thomas Bros.; five shops, Whyteleafe Road, for Messrs. Bethell and Swannell; addition to nurses' home, Browning Bethany Homes, for Messrs. Culpin and Bowers; hall and canteen, High Street, for the Unemployed Welfare Committee; alterations to works, Godstone Road, Warlingham, for Layham's Engineering Co., Ltd.; shop and house, Coulsdon Road, for Mr. W. H. Wilson; 72 houses, Hamsey Green, for Mr. P. Richardson; library, Whyteleafe County School, for Messrs. Jarvis and Richards.

Plans passed at EAST HAM: Two houses, Ranelagh Road, for Mr. H. Carey; additions to factory, Greenhill Grove, for Messrs. Leslie Bros.; office, Napier Road, for Mr. E. Farr; 16 houses, Flanders Road, for Mr. A. G. Manning; 15 houses, Saxon Road, for Mr. R. J. Slater; additions, St. Michael's School, Arthur Road, for Messrs. Marshall and Partners: house, Cleves Road, for Mr. E. Kilburn.

The FINCHLEY U.D.C. has approved plans, submitted by Mr. F. J. Moody, for the development of the Woodlands Estate.

Plans passed at FINCHLEY: New road, between Holden Road and Dollis Brook, for Mr. H. C. Harper; two houses, Kingsley Way, for Mr. L. C. Gibson; two houses, Kingsley Way, for Mr. A. Wood; additions to factory, 125 High Road, for Mr. J. Luck; factory, rear of 4a and 6a, Hutton Grove, for Mr. H. W. Boustred; three houses, Regent's Park Road, for Messrs. Bolton and Norris; Roman Catholic Church, Regent's Park Road, for The Westminster Diocesan Trustees; six garages, rear of shops, Falloden Way, Hampstead Garden Suburb, for Messrs. Kentish and Sons; conversion of house into two flats, 6, Cavendish Avenue, for Mr. E. Howes; additions, rear 375 Nether Street, for Mr. A. F. Tunstall; house, Kenver Avenue, for Mr. V. Smith; new road and sewers, off Brim Hill, Hampstead Garden Suburb, for Co-Partnership Tenants, Ltd.: two houses, Brim Hill, for Mr. G. Ramsbotham.

Plans passed by the HACKNEY B.C.: Buildings at Zenith Works, Wallis Road; additions, Eton Manor Club, Riseholme Street; seven houses, Northdene Gardens; factory and workshops, site of 167 Ball's Pond Road; factory, 20 Shore Road.

The SOUTHGATE U.D.C. has received plans from Mr. King for the lay-out of land in Bowes Road, opposite Natal Road, for the erection of shops and a cinema.

The TEDDINGTON U.D.C. has asked the surveyor to prepare a scheme for the lay-out of land in Little Queen's Road for depot purposes.

SOUTHERN COUNTIES

Plans passed by the NEWBURY Corporation: Two houses, Gloucester Road, for Messrs. F. and A. Cooke; two cottages, off Shaw Road, for Mr. W. Hiscock; alterations and additions, "Rising Sun" public-house, Wharf Road, for South Berks Brewery Co., Ltd.; house, Newtown Road, for Mr. M. V. Mummery; conversion of old Picture Palace into two shops, for Mr. R. D. Harrison; house and shop, Market Street, for Mr. C. Durnford; house, Enborne Grove, for Mr. A. E. Rawlings.

The NORTHFLEET U.D.C. is considering the erection of further houses on the Wombwell Park Estate.

The PORTSMOUTH Corporation has passed plans, submitted by Messrs. W. P. Winter and Son, Ltd., for the development of an estate at Cosham.

The PORTSMOUTH Corporation recommends the construction of a swimming bath at the extreme western end of the moat at Hilsea, at an estimated cost of £16,500, with an addition of £6,000 if filtration plant is insisted upon by the Ministry of Health.

The PORTSMOUTH Watch Committee has approved plans for the erection of a new cinema in Southsea Terrace.

The WORTHING Corporation Housing Committee has asked the surveyor to prepare plans and estimates for the erecton of 200 houses on a site at Goring.

The WORTHING Corporation has passed plans, submitted by Mr. H. Weston, for the erection of a cinema and shops on the corner of Rowlands Road and Eriswell Road.

Plans passed at WORTHING: House, Rose Walk, for Mr. G. W. Warr; house, Broadwater Road, for Mr. E. J. Love; two houses, Chesswood Road, and 38 houses, Shandon Road, for Mr. H. M. Potter: two houses, Sea Mill Park Crescent, for Mr. A. T. W. Goldsmith; house, Maynes Road, for Messrs. S. W. Phillips & Co.; house, Offington Lane, for Mr. F. W. Payne; additions, Worthing Hospital, Lyndhurst Road, for the management; four houses, Parkfield Road, for Mr. M. R. Fletcher; house, Upper Brighton Road, for Major H. W. Tyler; annexe to Fortescue Hotel, Wordsworth Road, for Messrs. S. Hyde and Son; eight houses, Offington Avenue, for Mr. H. M. Potter; two houses, Salvington Road, for Messrs. Jordan and Cook, Ltd.

EASTERN COUNTIES

Plans passed by the COLCHESTER Corporation: Two houses, Mile End Road, for Mr. W. S. Williams; house, Nuns Road, for Mr. T. J. Smith; seven houses, Bye-Pass Road, for Mr. F. Humm; house, Victoria Road, for Mr. R. T. Clarke; house, King Harold Road, for Mr. C. A. Ellis; works and stores, Ryegate Road, for Messrs. Kebt, Blaxill & Co., Ltd.; silk factory buildings, North Station Road, for Messrs. Duncan Clark and Beckett; alterations to premises of Prices Tailors, Ltd., 18–20, Long Wyre Street, for Mr. P. S. B. Nicholls; alterations and additions, Mile End Hall Farm, for Mr. E. Paul Impey; factory extension, Haven Road, Hythe, for Messrs. Wambach & Co.; factory extension, North Station Road, for Messrs. Baker and Burton; house, Mersea Road, for Mr. R. Laws; assembly hall for Plymouth Brethren, Maldon Road, for Mr. R. Woodhouse Beales.

MIDLAND COUNTIES

Plans passed by the NORTHAMPTON Corporation: development, Highlands Estate, Kettering Road, for Messrs. Chowns, Ltd.; house, Millway, Duston, for Mr. H. Stanford; development, Headlands Estate, Wellingboro' Road, for Mr. D. P. Taylor; shops, corner Rothersthorpe Road and Towcester Road, for Messrs. H. Martin, Ltd.; 32 houses, Billing Road East, for Messrs. W. J. Richardson and Son; house, Park Avenue, for Messrs. S. G. Sale & Co.; alterations, "Cricketers' Arms" public-house, Hervey Street, for Messrs. P. Phipps & Co., Ltd.; four houses, Pinewood Road, for Northampton Co-operative Society, Ltd.

But only God can make a tree. *Drawn by Reginald Marsh and reproduced by courtesy of* EVERYBODY'S WEEKLY.

The SMETHWICK Corporation has approved a lay-out of the Hill Farm estate, providing for the erection of 80 houses.

NORTHERN COUNTIES

Plans passed by the BOLTON Corporation: Two houses, Seymour Road, for Mr. W. E. Yates; transformer house, Bradford Street, for Messrs. Edwards Bros. (Tippers), Ltd.; house, Chorley Old Road, for Dr. H. W. Bowyer; 11 garages, Chassen Road, for Messrs. T. P. Smith, Ltd.; dairy, Breightmet Fold Farm, for Messrs. D. Constantine and Son; alterations, "Borough Arms" public-house, Higher Bridge Street, for Messrs. J. Sharman and Sons; alterations, George Hotel, Great Moor Street, for Manchester Brewery Co., Ltd.; alterations, "Founders Arms" public-house, St. George's Street, for Messrs. Wm. Tong and Sons, Ltd.; eight houses, Crompton Way, for Mr. J. Reddy; shop, Wigan Road, for Bolton Co-operative Society, Ltd.; 25 houses, Wheatfield Estate, for Messrs. Wilfred Andrew, Ltd.

The DURHAM County Council Health Committee has approved the proposals of the Public Assistance Committee for providing a surgical unit at Bishop Auckland poor law institution hospital of 150 beds, at an annual estimated cost of £25,847, and a medical unit at Chester-le-Street poor law institution hospital of 60 to 70 beds, at an annual estimated cost of £11,387. A sub-committee has been appointed to consider the details of the scheme.

The MANCHESTER Corporation proposes to erect 150 houses on the Wythenshawe estate, at a cost of £58,000.

The Board of Education has approved the plans of the MANCHESTER Education Committee for the extension of the Green End council school, and the erection of a new school at Benchill, Wythenshawe.

The SHEFFIELD Corporation has leased land adjoining the new power station at Blackburn Meadows to the Central Electricity Board for use as a site for a grid sub-station.

Plans passed by the SHIPLEY U.D.C.: Eight houses, off Poplar Road, for Messrs. Dale and Wild; 64 houses, off Wrose Road, for Messrs. A. and F. Mellor.

The YORK Corporation has approved plans for the erection of 42 flats on the Heworth Grange estate.

Plans passed by the YORK Corporation: Layout of estates at Osbaldwick and the Burnholme estate, Heworth, and shop sites, Tang Hall Lane, for Messrs. Cowling and Swift; two houses, Woodside Avenue, for Mr. J. N. Dunn; eight houses, Malton Road, for Messrs. J. W. Maw and Son; reconstruction, 5 Colliergate, for Mr. C. Morrell; additions, 73 Goodramgate, for Phitwell Tailoring Co., Ltd.; house, Greencliffe Drive, for Messrs. R. J. Pulleyn and Sons; additions, Three Cranes Hotel, St. Sampson's Square, for Tadcaster Tower Brewery Co., Ltd.; greyhound race track, James Street, for Greyhound Racing Co.; house and shop, Abbotsford Road, for Mr. L. Ashton; additions, 36 Monkgate, for Messrs. T. Moyser and Son; additions, 75 Gillygate, for Robert Sinclair Tobacco Co., Ltd.; two houses, Kilburn Road, for Messrs. F. Shepherd and Son, Ltd.; new premises, 9–10 High Ousegate, for Messrs. M. Burton, Ltd.; two houses, Abbey street, for Mr. A. Leaper; alterations, Light Horseman Hotel, Fishergate, for Tadcaster Tower Brewery Co., Ltd.; eight houses, Heworth Green, for Mr. H. Williamson.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 5½	1 1¼
A_1	Abergavenny	S. Wales & M.	1 5½	1 1¼
A_3	Abingdon	S. Counties	1 4½	1 0½
A	Accrington	N.W. Counties	1 6	1 1½
A_3	Addlestone	S. Counties	1 4½	1 0½
A	Adlington	N.W. Counties	1 6	1 1½
A	Airdrie	Scotland	•1 6	1 1½
C	Aldeburgh	E. Counties	1 2	10½
A	Altrincham	N.W. Counties	1 6	1 1½
B_3	Appleby	N.W. Counties	1 2½	11
A	Ashton-under-Lyne	N.W. Counties	1 6	1 1½
A_3	Atherstone	Mid. Counties	1 4½	1 0½
B_2	Aylesbury	S. Counties	1 3	11¼
B_1	BANBURY	S. Counties	1 3½	11¾
B_1	Bangor	N.W. Counties	1 3½	11¾
A_3	Barnard Castle	N.E. Coast	1 4½	1 0½
A	Barnsley	Yorkshire	1 6	1 1½
B	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow	N.W. Counties	1 6	1 1½
A	Barry	S. Wales & M.	1 6	1 1½
B_1	Basingstoke	S.W. Counties	1 3½	11¾
A_3	Bath	S.W. Counties	1 4½	1 0½
A	Batley	Yorkshire	1 6	1 1½
A_3	Bedford	E. Counties	1 4½	1 0½
A_2	Berwick-on-Tweed	N.E. Coast	1 5	1 0¾
A_2	Bewdley	Mid. Counties	1 5	1 0¾
B_3	Bicester	S. Counties	1 2½	11
	Birkenhead	N.W. Counties	•1 7½	1 2¾
A	Birmingham	Mid. Counties	1 6	1 1½
A_1	Bishop Auckland	N.E. Coast	1 5½	1 1¼
A	Blackburn	N.W. Counties	1 6	1 1½
A	Blackpool	N.W. Counties	1 6	1 1½
A	Blyth	N.E. Coast	1 6	1 1½
B_2	Bognor	S. Counties	1 3	11¼
A	Bolton	N.W. Counties	1 6	1 1½
A_3	Boston	Mid. Counties	1 4½	1 0½
A_3	Bournemouth	S. Counties	1 4½	1 0½
B_2	Bovey Tracey	S.W. Counties	1 3	11¼
A	Bradford	Yorkshire	1 6	1 1½
A_2	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 6	1 1½
B_1	Bridgwater	S.W. Counties	1 3½	11¾
A_1	Bridlington	Yorkshire	1 5½	1 1¼
A	Brighouse	Yorkshire	1 6	1 1½
A_3	Brighton	S. Counties	1 4½	1 0½
A	Bristol	S.W. Counties	1 6	1 1½
B_3	Brixham	S.W. Counties	1 2½	11
A_2	Bromsgrove	Mid. Counties	1 5	1 0¾
C	Bromyard	Mid. Counties	1 2	10½
A	Burnley	N.W. Counties	1 6	1 1½
A	Burslem	Mid. Counties	1 6	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½
A	Bury	N.W. Counties	1 6	1 1½
A_1	Buxton	N.W. Counties	1 5½	1 1¼
A_2	CAMBRIDGE	E. Counties	1 5	1 1¾
B_2	Canterbury	S. Counties	1 3	11¼
A	Cardiff	S. Wales & M.	1 6	1 1½
A	Carlisle	N.W. Counties	1 6	1 1½
B	Carmarthen	S. Wales & M.	1 4	1 0
B	Carnarvon	N.W. Counties	1 4	1 0
A	Carnforth	N.W. Counties	1 6	1 1½
A	Castleford	Yorkshire	1 6	1 1½
B	Chatham	S. Counties	1 4	1 0
B	Chelmsford	E. Counties	1 4	1 0
A_3	Cheltenham	S.W. Counties	1 4½	1 0½
A	Chester	N.W. Counties	1 6	1 1½
A	Chesterfield	Mid. Counties	1 6	1 1½
B_2	Chichester	S. Counties	1 3	11¼
A	Chorley	N.W. Counties	1 6	1 1½
B_2	Cirencester	S. Counties	1 3	11¼
A	Clitheroe	N.W. Counties	1 6	1 1½
A	Clydebank	Scotland	1 6	1 1½
A	Coalville	Mid. Counties	1 6	1 1½
A_3	Colchester	E. Counties	1 4½	1 0½
A	Colne	N.W. Counties	1 6	1 1
A_2	Colwyn Bay	N.W. Counties	1 5	1 0¾
A_1	Consett	N.E. Coast	1 5½	1 1¼
A_2	Conway	N.W. Counties	1 5	1 0¾
A	Coventry	Mid. Counties	1 6	1 1½
A_2	Crewe	N.W. Counties	1 5	1 0¾
A_3	Cumberland	N.W. Counties	1 4½	1 0½
A	DARLINGTON	N.E. Coast	1 6	1 1½
A	Darwen	N.W. Counties	1 6	1 1½
B_2	Deal	S. Counties	1 3	11¼
A_3	Denbigh	N.W. Counties	1 4½	1 0½
A	Derby	Mid. Counties	1 6	1 1½
A	Dewsbury	Yorkshire	1 6	1 1½
B	Didcot	S. Counties	1 4	1 0
A	Doncaster	Yorkshire	1 6	1 1½
B_2	Dorchester	S.W. Counties	1 3	11¼
A_3	Driffield	Yorkshire	1 4½	1 0½
A_2	Droitwich	Mid. Counties	1 5	1 0¾
A	Dudley	Mid. Counties	1 6	1 1½
A	Dundee	Scotland	1 6	1 1½
A	Durham	N.E. Coast	1 6	1 1½
A_3	EASTBOURNE	S. Counties	1 4½	1 0½
A_1	Ebbw Vale	S. Wales & M.	1 5½	1 1¼
A	Edinburgh	Scotland	1 6	1 1½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5½	1 1¼
A_2	Exeter	S.W. Counties	•1 5	1 0¾
B_1	Exmouth	S.W. Counties	1 3½	11¾
A_3	FELIXSTOWE	E. Counties	1 4½	1 0½
A_3	Filey	Yorkshire	1 4½	1 0½
A	Fleetwood	N.W. Counties	1 6	1 1½
B_2	Folkestone	S. Counties	1 3	11¼
A	Frodsham	N.W. Counties	1 6	1 1½
B_2	Frome	S.W. Counties	1 3	11¼
A	GATESHEAD	N.E. Coast	1 6	1 1½
B	Gillingham	S. Counties	1 4	1 0
A_2	Gloucester	S.W. Counties	1 5	1 0¾
A_2	Goole	Yorkshire	1 5	1 0¾
A_3	Gosport	S. Counties	1 4½	1 0½
A_3	Grantham	Mid. Counties	1 4½	1 0½
A_1	Gravesend	S. Counties	1 5½	1 1¼
A	Greenock	Scotland	•1 6	1 1½
A	Grimsby	Yorkshire	1 6	1 1½
B_1	Guildford	S. Counties	1 3½	11¾
A	HALIFAX	Yorkshire	1 6	1 1½
A	Hanley	Mid. Counties	1 6	1 1½
A	Harrogate	Yorkshire	1 6	1 1½
A	Hartlepools	N.E. Coast	1 6	1 1½
B	Harwich	E. Counties	1 4	1 0
B_2	Hastings	S. Counties	1 3	11¼
A_3	Hatfield	S. Counties	1 4½	1 0½
B	Hereford	S.W. Counties	1 4	1 0
A_3	Hertford	E. Counties	1 4½	1 0½
A	Heysham	N.W. Counties	1 6	1 1½
A	Howden	N.E. Coast	1 6	1 1½
A	Huddersfield	Yorkshire	1 6	1 1½
A	Hull	Yorkshire	1 6	1 1½
A	ILKLEY	Yorkshire	1 6	1 1½
A	Immingham	Mid. Counties	1 6	1 1½
A_3	Ipswich	E. Counties	1 4½	1 0½
B_3	Isle of Wight	S. Counties	1 2½	11
A	JARROW	N.E. Coast	1 6	1 1½
A	KEIGHLEY	Yorkshire	1 6	1 1½
B	Kendal	N.W. Counties	1 4	1 0
B	Keswick	N.W. Counties	1 4	1 0
A_2	Kettering	Mid. Counties	1 5	1 0¾
A_2	Kidderminster	Mid. Counties	1 5	1 0¾
B_2	King's Lynn	E. Counties	1 3	11¼
A	LANCASTER	N.W. Counties	1 6	1 1½
A_2	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 6	1 1½
A	Leek	Mid. Counties	1 6	1 1½
A	Leicester	Mid. Counties	1 6	1 1½
A	Leigh	N.W. Counties	1 6	1 1½
B_3	Lewes	S. Counties	1 2½	11
A_2	Lichfield	Mid. Counties	1 5	1 0¾
A	Lincoln	Mid. Counties	1 6	1 1½
	Liverpool	N.W. Counties	•1 7½	1 2¾
A_2	Llandudno	N.W. Counties	1 5	1 0¾
A	Llanelly	S. Wales & M.	1 6	1 1½
	London (12-miles radius)		1 7½	1 2¾
	Do. (12-15 miles radius)		1 7	1 2¼
A	Long Eaton	Mid. Counties	1 6	1 1½
A	Loughborough	Mid. Counties	1 6	1 1½
A_3	Luton	E. Counties	1 4½	1 0½
A	Lytham	N.W. Counties	1 6	1 1½
A_1	MACCLESFIELD	N.W. Counties	1 5½	1 1¼
B	Maidstone	S. Counties	1 4	1 0
A_3	Malvern	Mid. Counties	1 4½	1 0½
A	Manchester	N.W. Counties	1 6	1 1½
A	Mansfield	Mid. Counties	1 6	1 1½
B_1	Margate	S. Counties	1 3½	11¾
A_3	Matlock	Mid. Counties	1 4½	1 0½
A_1	Merthyr	S. Wales & M.	1 5½	1 1¼
A	Middlesbrough	N.E. Coast	1 6	1 1½
A_2	Middlewich	N.W. Counties	1 5	1 0¾
B_2	Minehead	S.W. Counties	1 3	11¼
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3	11¼
A	Morecambe	N.W. Counties	1 6	1 1½
A_2	NANTWICH	N.W. Counties	1 5	1 0¾
A	Neath	S. Wales & M.	1 6	1 1½
A	Nelson	N.W. Counties	1 6	1 1½
A	Newcastle	N.E. Coast	1 6	1 1½
A	Newport	S. Wales & M.	1 6	1 1½
A	Normanton	Yorkshire	1 6	1 1½
A_1	Northampton	Mid. Counties	1 5½	1 1¼
A	North Staffs.	Mid. Counties	1 6	1 1½
A	North Shields	N.E. Coast	1 6	1 1½
A_2	Norwich	E. Counties	1 5	1 0¾
A	Nottingham	Mid. Counties	1 6	1 1½
A	Nuneaton	Mid. Counties	1 6	1 1½
A_3	OAKHAM	Mid. Counties	1 4½	1 0½
A	Oldham	N.W. Counties	1 6	1 1½
A_3	Oswestry	N.W. Counties	1 4½	1 0½
A_2	Oxford	S. Counties	1 5	1 0¾
A	PAISLEY	Scotland	•1 6	1 1½
B_3	Pembroke	S. Wales & M.	1 2½	11
A	Perth	Scotland	•1 6	1 1½
A_2	Peterborough	E. Counties	1 5	1 0¾
A	Plymouth	S.W. Counties	•1 6	1 1½
A	Pontefract	Yorkshire	1 6	1 1½
A_1	Pontypridd	S. Wales & M.	1 5½	1 1¼
A_3	Portsmouth	S. Counties	1 4½	1 0½
A	Preston	N.W. Counties	1 6	1 1½
A	QUEENSFERRY	N.W. Counties	1 6	1 1½
A_2	READING	S. Counties	1 5	1 0¾
B	Reigate	S. Counties	1 4	1 0
A_3	Retford	Mid. Counties	1 4½	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 5½	1 1¼
A_3	Ripon	Yorkshire	1 4½	1 0½
A	Rochdale	N.W. Counties	1 6	1 1½
B	Rochester	S. Counties	1 4	1 0
A_1	Ruabon	N.W. Counties	1 5½	1 1¼
A	Rugby	Mid. Counties	1 6	1 1½
A_3	Rugeley	Mid. Counties	1 4½	1 0½
A	Runcorn	N.W. Counties	1 6	1 1½
A_2	ST. ALBANS	E. Counties	1 5	1 0¾
A	St. Helens	N.W. Counties	1 6	1 1½
B_3	Salisbury	S.W. Counties	1 2½	11
A_1	Scarborough	Yorkshire	1 5½	1 1¼
A	Scunthorpe	Mid. Counties	1 6	1 1½
A	Sheffield	Yorkshire	1 6	1 1½
A	Shipley	Yorkshire	1 6	1 1½
A_2	Shrewsbury	Mid. Counties	1 5	1 0¾
A_2	Skipton	Yorkshire	1 5	1 0¾
A_3	Slough	S. Counties	1 4½	1 0½
A_2	Solihull	Mid. Counties	1 5	1 0¾
A_2	Southampton	S. Counties	1 5	1 0¾
A_2	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport	N.W. Counties	1 6	1 1½
A	S. Shields	N.E. Coast	1 6	1 1½
A_2	Stafford	Mid. Counties	1 5	1 0¾
A	Stockport	N.W. Counties	1 6	1 1½
A	Stockton-on-Tees	N.E. Coast	1 6	1 1½
A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
B	Stroud	S.W. Counties	1 4	1 0
A	Sunderland	N.E. Coast	1 6	1 1½
A	Swadlincote	Mid. Counties	1 6	1 1½
A	Swansea	S. Wales & M.	1 6	1 1½
A_3	Swindon	S.W. Counties	1 4½	1 0½
A_1	TAMWORTH	N.W. Counties	1 5½	1 1¼
B	Taunton	S.W. Counties	1 4	1 0
A	Teesside Dist.	N.E. Counties	1 6	1 1½
A_3	Teignmouth	S.W. Coast	1 4½	1 0½
A	Todmorden	Yorkshire	1 6	1 1½
A_1	Torquay	S.W. Counties	1 5½	1 1¼
C	Truro	S.W. Counties	1 2	10½
B	Tunbridge Wells	S. Counties	1 4	1 0
A	Tunstall	Mid. Counties	1 6	1 1½
A	Tyne District	N.E. Coast	1 6	1 1½
A	WAKEFIELD	Yorkshire	1 6	1 1½
A	Walsall	Mid. Counties	1 6	1 1½
A	Warrington	N.W. Counties	1 6	1 1½
A_2	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 5	1 0¾
A	West Bromwich	Mid. Counties	1 6	1 1½
A_2	Weston-s.-Mare	W. Counties	1 5	1 0¾
A_2	Whitby	Yorkshire	1 5	1 0¾
A	Widnes	N.W. Counties	1 6	1 1½
A	Wigan	N.W. Counties	1 6	1 1½
B_1	Winchester	S. Counties	1 3½	11¾
A_3	Windsor	S. Counties	1 4½	1 0½
A	Wolverhampton	Mid. Counties	1 6	1 1½
A_2	Worcester	Mid. Counties	1 5	1 0¾
A_3	Worksop	Yorkshire	1 4½	1 0½
A_1	Wrexham	N.W. Counties	1 5½	1 1¼
A_3	Wycombe	S. Counties	1 4½	1 0½
B_1	YARMOUTH	E. Counties	1 3½	11¾
B_1	Yeovil	S.W. Counties	1 3½	11¾
A	York	Yorkshire	1 6	1 1½

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7½
Carpenter	,,		1	7½
Joiner	,,		1	7½
Machinist	,,		1	8½
Mason (Banker)	,,		1	7½
,, (Fixer)	,,		1	8½
Plumber	,,		1	7½
Painter	,,		1	7½
Paperhanger	,,		1	9½
Glazier	,,		1	7½
Slater	,,		1	7½
Scaffolder	,,		1	3½
Timberman	,,		1	3½
Navvy	,,		1	2¾
General Labourer	,,		1	2¾
Lorryman	,,		1	5
Crane Driver	,,		1	6½
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	0

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		s.	d.
Good carcassing timber	F.C.	2	2
Birch	as 1" F.S.		9
Deal, Joiner's	,, ,,		5
,, ,, 2nds	,, ,,		4
Mahogany, Honduras	,, ,,	1	3
,, African	,, ,,	1	1
,, Cuban	,, ,,	2	6
Oak, plain American	,, ,,	1	0
,, Figured ,,	,, ,,	1	3
,, Plain Japanese	,, ,,	1	2
,, Figured ,,	,, ,,	1	5
,, Austrian wainscot	,, ,,	1	6
,, English	,, ,,	1	11
Pine, Yellow	,, ,,	1	0
,, Oregon	,, ,,		4
,, British Columbian	,, ,,		4
Teak, Moulmein	,, ,,	1	3
,, Burma	,, ,,	1	2
Walnut, American	,, ,,	2	3
,, French	,, ,,	2	3
Whitewood, American	,, ,,	1	1

Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ½"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:
(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES	Per cent.		Per cent.
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.	s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.		3¾
,, ,, 26 oz. ,, ,, ,,	,,		4½
Arctic glass, white	,,		7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,		6½
¼" Hartley's rough rolled	,,		7
¼" ,, wired cast	,,		10
¼" Georgian wired cast	,,		11
¼" Polished plate, n/e 1 ft.	,,	†7½ to	‡1 0
,, ,, 2	,,	†10 ,,	‡1 3½
,, ,, 3	,,	†1 4½ ,,	‡1 10
,, ,, 4	,,	†1 11 ,,	‡2 4
,, ,, 6	,,	†2 3 ,,	‡2 7½
,, ,, 8	,,	†2 5 ,,	‡3 0½
,, ,, 12	,,	†2 10 ,,	‡3 3½
,, ,, 20	,,	†3 3½ ,,	†3 9
,, ,, 45	,,	†3 6½ ,,	‡4 0½
,, ,, 65	,,	†3 11½ ,,	‡4 4
,, ,, 90	,,	†4 4 ,,	‡4 9
,, ,, 100	,,	†4 6 ,,	‡4 11
Vita glass, sheet, n/e 1 ft.	,,		1 0
,, ,, ,, 2	,,		1 3
,, ,, ,, over 2	,,		1 9
,, ,, plate, n/e 1 ft.	,,		1 6
,, ,, ,, 2	,,		3 0
,, ,, ,, 5	,,		4 0
,, ,, ,, 7	,,		5 0
,, ,, ,, 15	,,		6 0
,, ,, ,, over 15	,,		7 6
Putty, linseed oil	lb.		3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay add	,,		3	0
If in underpinning ,,	,,		5	0
Digging, return, fill and ram ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	18	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1½" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1½" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s. d.	¾" s. d.	1" s. d.	1½" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	0 6
Do. to stop ends	,,	7	9	1 0	1 3	2 0	—
Boiler screws and unions	,,	3 6	4 0	5 6	8 0	—	—
Lead traps	,,	—	—	—	7 6	10 6	—
Screw down bib valves	,,	7 6	10 6	12 6	—	—	—
Do. stop cocks	,,	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
¾" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

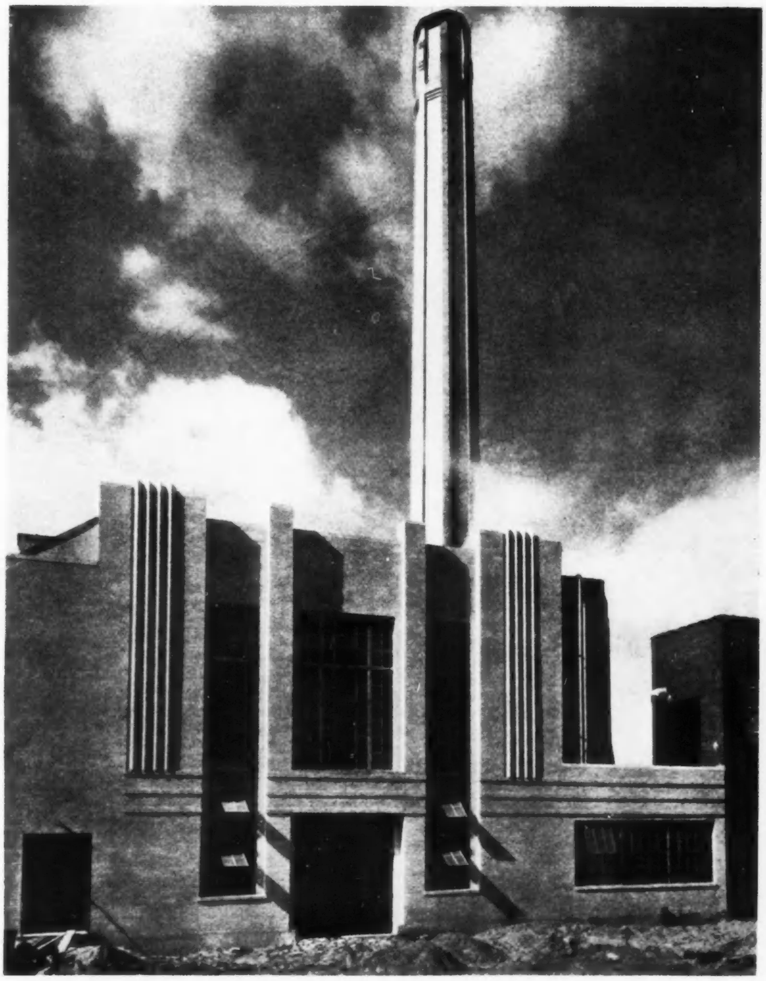
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	,,		10½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

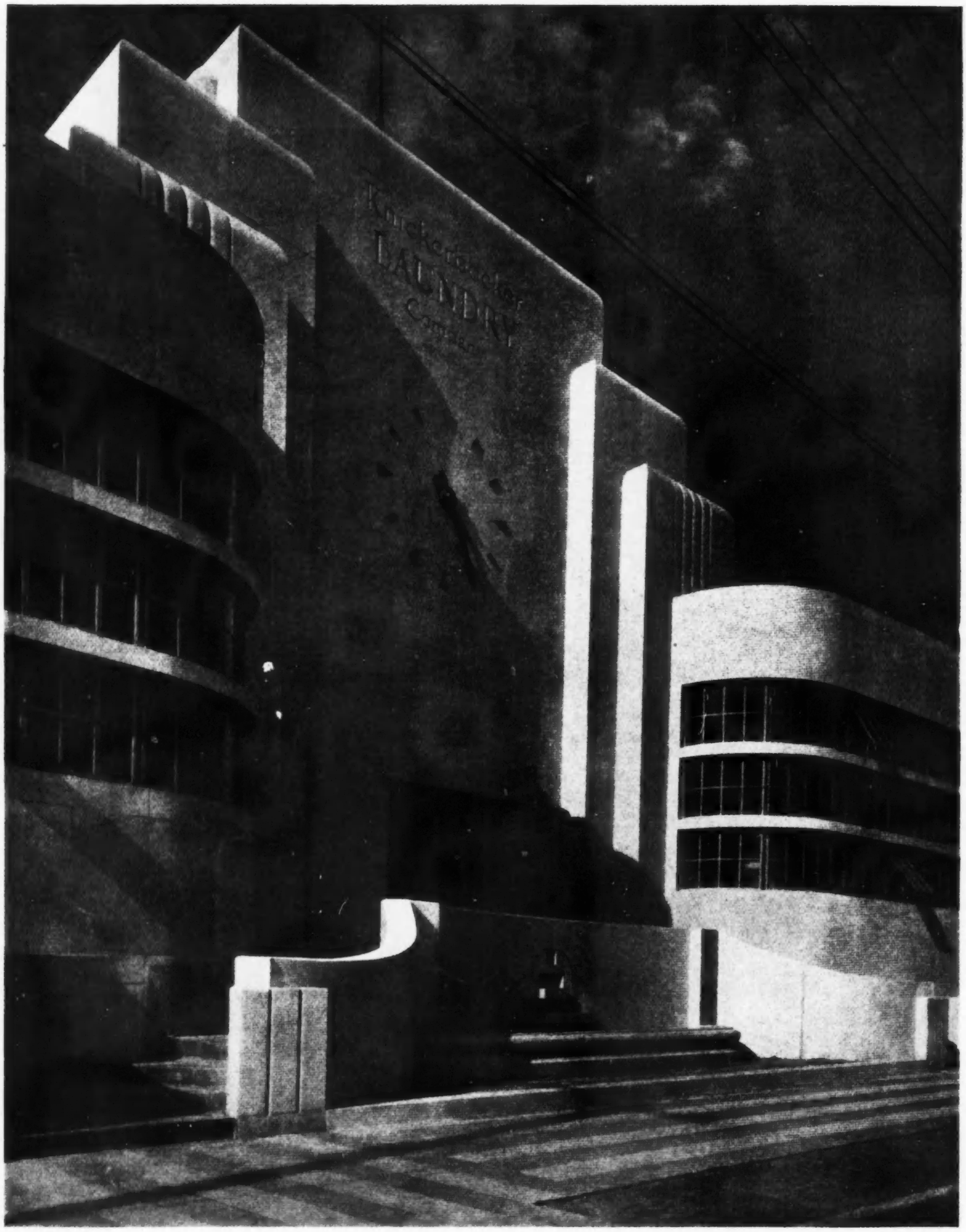
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	,,	2	9

A LAUNDRY IN NEW YORK

DESIGNED BY IRVING M. FENICHEL

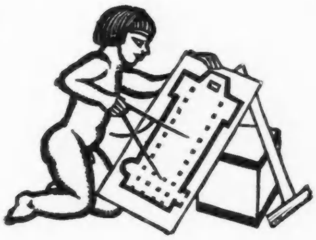


THE premises of the Knickerbocker Laundry Company, Long Island City, New York, of which the power house section is illustrated above, and the main entrance on the frontispiece, overleaf, occupies an acre of land, and gives, in two stories with a mezzanine, a total of 92,000 sq. ft. of floor space in a cube of 1,500,000. The structure is of steel skeleton and concrete, with brick walls and dressings of reconstructed marble on the façade and principal returns. It was specifically designed to house a plant of the most up-to-date character, that includes not only laundry machinery but apparatus for dry-cleaning garments with a non-inflammable liquid solvent, and for cleaning rugs and carpets, curtains and blankets. The building is passed daily by half-a-million season-ticket holders on the Long Island railway 150 feet away, so that its outward appearance has a definite advertising value. To combine the useful and ornamental functions was therefore the key-problem of the programme.



A LAUNDRY IN NEW YORK

In this design, by Irving M. Fenichel, the main entrance is the central feature in a front in which horizontal fenestration in the two wings is effectively contrasted with deep vertical window spaces in two terminal blocks, which have been kept a little lower than the central one. The whole of the front is faced with reconstructed marble.



£15,000 FOR £40,000,000

PRIVATE enterprise is not often able to correct the results of political stupidity, but the Building Industries National Council can, through its Special Committee for Public Relations, do much to restore activity in the Building Industry. The Committee, after widespread circularization of municipal and other bodies, now estimate that building work to the value of nearly £40,000,000 has been abandoned in this country since the warnings and prohibitions were issued by the politicians to whom we have entrusted the political and economic welfare of this wonderful and wondering Empire.

Our national reluctance to plan anything produces the most humiliating situations when there happens to be a crisis. The Ship of State was sinking, we were told not so long ago, but, fortunately, gold would float, and the glorious vessel could be buoyed up by keeping to the gold standard ; and then, with the inverted confidence which makes politicians believe that they can fool all of the people all of the time, we were asked to applaud the sudden discovery by our statesmen that gold was dragging the Ship of State to the bottom, and that it must be heaved overboard forthwith.

Then came the "Buy British" slogan, tempered with the admonition : "But don't buy anything unless you have to."

Then followed the disastrous interference, in the name of economy, with building schemes, the holding up of fruitful work that provided employment and would have left the country with something to show for money spent, something tangible in brick and stone and steel, instead of the intangible but bitter and corroding spirit that inevitably grows up among skilled men who are willing to work, but who are kept idle on payments grudgingly made by the State. This spirit, compounded of injured pride, frustration and a sense of deep injustice, may permanently impair the technical ability of British industry. It is not possible to assess the cost of the trouble that is accumulating ; it is sufficiently disquieting to imagine its extent ; but it is possible to know that the estrangement of our rulers from economic realities has deprived one of the great industries of the country of forty million pounds' worth of work.

Now, if it is supported, the Building Industries National Council may get some of that work restarted. But the Special Committee for Public Relations cannot act without funds. It is asking for £15,000, which is a modest sum enough for the task to which it is addressing its energies, and, in promises and actual subscriptions, it has received under a seventh of the amount needed.

In our New Year issue we published articles written by many specialists who had studied the present situation from their own particular points of view. They were at one in showing the drastic and immediate need for organization in the Building Industry and the many trades dependent upon it, which, together, form an industrial group second only to agriculture in the number of operatives concerned. The need is national in its scope. It was stated that the Building Industry had it within its power, by a proper use of the Public Relations Committee, to win back prosperity not only for itself but for the numberless commercial interests contingent upon its healthy condition. And for that object to be achieved, a National Plan was shown to be a necessity.

If this statement is true—and it is confirmed on every hand—it is obvious that the money necessary to take the first step, namely, to set the wheels in motion, *must* be found. You, reader, are a member of the Building Industry. Is it worth your while to spend money in order to get building started again ? Even from the lowest business standpoint it is.

With a plan in being, it behoves every member to contribute towards its fulfilment to the utmost of his ability. As we have said, one of the most important objects of the Committee is to take "action with regard to all cases where building schemes have been notified as being held up or delayed as the result of economic measures." That is one of the specific aims set forth by the Committee; and although the Committee should be generously supported by the Building Industry and by manufacturers of building materials, *it should be realized that no contribution is too small to be effective.*

To get work restarted is admittedly but the first action in the general campaign of national reconstruction. As for that larger enterprise, it is far-reaching, and no doubt the formation of a National Plan, complete in all its details, is too ambitious an undertaking for the Public Relations Committee to lay themselves out on at once. But to join issue where building schemes are held up seems to be a line of attack which they can develop practically and forthwith.

Let them take specific schemes and concentrate upon the removal from them of the insensate ban imposed by false economy. And let them work the more gladly in the assurance that any movement of the kind is bound to gather momentum, snowball-fashion. Here, if ever, is a case where the first cut counts.

NEWS & TOPICS

BLOWING COLD AND HOT

MR. A. H. DUNGAY, whose letter registering fatigue with " all the ' hot air ' about the Carlton House Terrace scheme " appeared in these columns on December 28, and goaded me, and Mr. Gerald McMichael (letter published in January 4 issue) to reason with him, writes :—

> Your criticism of my protest, and the delightful though self-contradictory letter of Mr. Gerald McMichael, leave me cold. My view is, I think, that of a normal outsider—who generally sees most of the game—protesting against the methods employed. I am not interested in the merits or otherwise of the scheme, but one-sided criticism persisted in does make one rather tired.
>
> Surely the advocates of any scheme can scarcely be accused of effrontery because they express their views ; they have as much right to do so as their opponents and neither side has a monopoly of good taste. Some of the letters you have printed certainly do not exhibit good taste and one is inclined to wonder if the writers would have declined " the job " if they had been offered it and what their views would have been then. Cannot these writers (not all of them by any means) be more reasonably accused of effrontery ?
>
> Most questions have two sides and I suggest this may not be an exception. Some may even dare to think the new building an improvement—what an uplifting of hands in pious horror ! Surely they have the right to think so without being accused of being lacking in taste, etc. !

*

Mr. Dungay professes that he dislikes hot air ; and that criticism leaves him cold. So cold does he remain that the point I made still escapes him. He again confounds two issues I thought I had separated : that of fair play and that of deliberate falsification.

*

I am all for fair play ; as for deliberate falsification of the kind the protagonists in the Carlton House Terrace controversy have employed, effrontery was a mere pale symbol of a word to use—a symbol for the very much stronger expressions that are really in my mind.

*

For let me just recall once again what was done. The design for the whole new scheme for rebuilding Carlton House Terrace and Carlton Gardens *was not* referred to the Fine Art Commission. The Commission were asked one question : whether they would pass a design by Sir Reginald Blomfield—not a design for No. 4, Carlton Gardens, nor a design for Carlton House Terrace. Just a design. They did so, with reservations. The Crown Commissioners used this procedure to try to bluff the public into thinking the Fine Art Commission had approved the demolition and rebuilding of Carlton Gardens and Carlton House Terrace. If this is not effrontery, what is it ?

*

DR. ADAMS AND THE NEW LONDON

The address given by Dr. Thomas Adams to the London Society last Friday evening was significant. Dr. Adams, as the General Director of the Plan of New York and its environs, has unique experience in the replanning of a city already built up. I found it, therefore, not discouraging to learn that in his view New York is reconstructing itself much more out of scale than London. Dr. Adams, on the whole, praises London's development of the last thirty years, although he regrets, like the rest of us, the destruction of parts of Park Lane and Carlton House Terrace.

*

But the important part of his speech was at the end, when he came down heavily on one side of the fence with regard to the application to London of the Town and Country Planning Act, which comes into force on April 1. He is not one of those who think that the Act can be used to enable the whole of London to be replanned and zoned. He would like town-planning schemes to be prepared without delay for the so-called " static areas." Incidentally, Lord Haddo and the Town-Planning Committee of the London County Council have already started to plan certain of these areas.

*

BOMB-PROOF PLANNING

The publication of a book, *The Danger from the Air*, by M. Paul Vauthier, a French architect, shows town-planning in a new guise. Not only must we replan our towns but we must replan them bomb-proof. Our author visualizes his ideal city as one of isolated sky-scrapers with armoured roofs—three feet of convex concrete would, he thinks, deflect the lighter incendiary bombs.

*

But the heavier metal would penetrate and explode in the ten-foot space above a second three-foot slab of concrete. Nevertheless, on alarm, the three top stories of a 30-story building would be evacuated ; and so would the bottom seven, for fear of poison gas.

*

From all such glimpses of the next war the mind recoils, shuddering. Must we really all prepare to live in fortresses ? And if we do, will it avail us ?

*

RESTORING THE HOUSES OF PARLIAMENT

The unhappy choice of stone for Barry's Houses of Parliament has been and will still be a very costly matter.

THE ARCHITECTS' DIARY

WEDNESDAY, JANUARY 25

R.I.B.A., 9, Conduit Street, W.1. Exhibition of the prize drawings for 1932. 10 a.m. to 8 p.m. Last day, January 28. **10 a.m.**

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 1933. 10 a.m. to 6 p.m. Until March 11. **10 a.m.**

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. " Roman Architecture—II." By Sir Banister Fletcher, PP.R.I.B.A. **6 p.m.**

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. " Past, Present and Future Bridges of London." By Lt.-Col. J. Benskin, O.B.E. **8 p.m.**

INSTITUTION OF CIVIL ENGINEERS, Great George Street, S.W.1. Students' Meeting. " The Work of the Foundations of Hampton Court Bridge." By P. W. E. Holloway, B.A. **6.30 p.m.**

BRITISH WOOD PRESERVING ASSOCIATION, 29 Lincoln's Inn Fields, W.C.2. " Some Experiments in the Control of Dry Rot." By Alex. H. Dewar, F.I.C. **6 p.m.**

THURSDAY, JANUARY 26

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. " Stone Decay." By E. F. Power. **6.30 p.m.**

DESIGN AND INDUSTRIES ASSOCIATION. At 6 Little Russell Street, W.C.1. " Designing for Industrial Production." By R. A. Duncan, F.R.I.B.A. **8.15 p.m.**

FRIDAY, JANUARY 27

INSTITUTION OF STRUCTURAL ENGINEERS, Lancashire and Cheshire Branch. Annual Dinner and Ladies' Evening. At the Midland Hotel, Manchester. Midland Counties Branch. At the Chamber of Commerce Building, 95 New Street, Birmingham. " Bridge Foundations—II." By H. E. Brooke-Bradley. 6.30 p.m.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1 " General Principles in Regard to the Treatment of Ancient Buildings." By A. R. Powys. A.R.I.B.A. **6 p.m.**

SATURDAY, JANUARY 28

Sunrise 7.45 a.m. Sunset 4.41 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. Visit to St. Mary-le-Bow (Bow Church), Cheapside, E.C.2. **2.30 p.m.**

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. Seventh Annual Dinner. At the Midland Hotel, Birmingham.

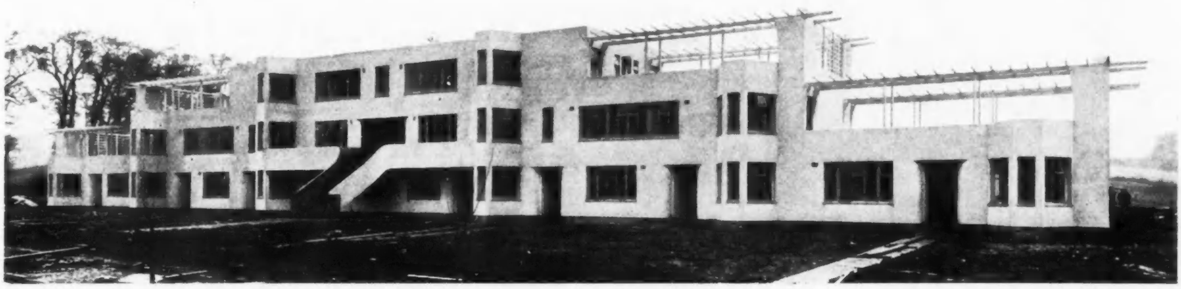
MONDAY, JANUARY 30

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. " The Training of an Architect." By Howard Robertson, F.R.I.B.A. 8 p.m. Also, exhibition of work illustrative of the special features of the course of training at the Association. 10 a.m. to 8 p.m. Until February 24. **8 p.m.**

LONDON SOCIETY. Two visits to the Building Centre, 158 New Bond Street, W.1. 11 a.m. and 4 p.m. **11 a.m.**

TUESDAY, JANUARY 31

FACULTY OF ARCHITECTS AND SURVEYORS. At the Science Museum, Exhibition Road, South Kensington, S.W.7. " Fungal Diseases of Timber." By J. Ramsbottom, O.B.E. **7 p.m.**



The first of a large number of small blocks of flats on the Barnhill Estate, Wembley, designed on "cubic" lines by Herbert A. Welch (Welch, Cachemaile-Day and Lander) and erected by Haymills, Ltd. Each block comprises twelve flats. They are of brick, but cased with cream-coloured cement. They rise in three tiers, and are stepped flat by flat from each end, the roof of one forming the garden to the flat above. The ground floor flats, of course, have the ordinary gardens. Internally, everything has been planned for easy running and convenience, and each room has the maximum amount of window space. An estate at Hendon is also being developed by Haymills, Ltd. (See note below.)

When the work of restoration was started upon it was estimated to cost £1,000,000.

*

The drop in building prices and other economies have reduced this by half, which is a substantial reduction. Nevertheless, restoration is bound to go on for a long time. New work is inserted in a much harder stone, and wherever possible carving is simplified to a degree that would doubtless give pain to Pugin's shade, but is otherwise blameless.

*

The most successful stone restoration that I can remember was the rigid pruning of the Westminster Hospital that changed the character of the building from that of dull revival Gothic to something nearly modern in its pleasing severity. This is not offered as a solution of the Houses of Parliament problem.

*

A SIGN OF THE TIMES

In the advertisement pages of this issue, I am told, there is to appear a call from certain trustees for applications from architects competent "to carry out all architectural work in connection with estate development" of their property in the south-west of England. This is an encouraging sign which, read in conjunction with other signs of the times, goes to show a growth of appreciation of the architect's proper place in the scheme of things mundane.

*

THE VICIOUS CIRCLE

When some one stops buying—some one stops selling.
When some one stops selling—some one stops making.
When some one stops making—some one stops working.
When some one stops working—some one stops earning.
When some one stops earning—some one stops buying.
W. B. WALKER

[From *The Daily Express*]

ASTRAGAL

OTHER NEWS ITEMS

Surburban Housing

The undeniable enterprise of speculative builders has been responsible all too frequently for the deplorable hotch-potch of villas which surround practically every town in England. It is interesting, therefore, to note the improvement, both in appearance and amenities, which occurs when one of these firms has the discrimination to acquire the services of an architect in carrying out a suburban housing scheme.

POINTS FROM THIS ISSUE

£40,000,000 of building work is now at a standstill *129*
The whole world is suffering from lack of direction and planning *140*
Damage caused by the death-watch beetle is frequently confused with the less serious damage caused by the common furniture beetle *148*
Modern art exalts the beauty of everyday things *148*
A public house should not look too "pubby" *152*
There still, happily, are church architects at work who have not lost touch with tradition *152*

About two years ago, Messrs. Haymills, Ltd., who are developing large estates at Wembley and Hendon, sought the advice of Mr. Herbert A. Welch, of Messrs. Welch, Cachemaille-Day and Lander, and the fruits of their wisdom are now to be seen in the houses and flats which have recently been completed there, and were inspected last week by invitation.

Those designed by Mr. Welch, and erected under his supervision, are very simple in their general treatment but with some unmistakably architectural details—the iron handrails to the steps of the smallest houses are particularly attractive. The most interesting feature, however, is that all these houses have flat roofs, some with glass sun-rooms. There are several blocks of flats which, rising in three tiers, have stepped roofs—the roof of one forming the garden to the flat above, while the ground floor flat has its garden on *terra firma* in the usual way, as shown in the illustration on this page. Inside, everything has been planned for easy running and convenience, and each room has the maximum window space. In developing this estate care has been taken in the orientation of the buildings, and the lay-out was planned so that each house should have an open outlook. The prices of the houses range from about £1,725 to £2,350, and they are selling rapidly.

It is a pity that there is not more co-operation of this kind between architect and builder. The architect would not find it unprofitable, and the builder and the public would gain inestimably. Together they could produce really inexpensive dwellings—only possible when worked out as part of a large scheme—which would have the individuality which only an architect's specialized knowledge can give to the design of a building. England then, perhaps, might be a land fit for architects to live in.

Public Utility

Sir Raymond Unwin, P.R.I.B.A., is summoning a further conference to consider the proposed public utility organization on February 1. The first conference, held on January 13, was attended by Mr. A. T. Pike, the Chairman of the Finchley Urban District Council and Secretary of the Garden Cities and Town Planning Association and by representatives of the Mansion House Council of Social Service.

It is hoped on February 1 to put forward a definite programme of action, and at the same time to report on a proposed deputation to Sir Hilton Young, the Minister of Health, who is being asked to grant the same financial facilities to a public utility organization as are to be given, under the new Housing Bill, to building societies.

A.A. Leverhulme Scholarships

Mr. A. B. Knapp-Fisher, F.R.I.B.A., at a meeting of the Architectural Association, held on Monday of last week, announced that five scholarships, each worth £200 a year, had been granted by the trustees of the late Lord Leverhulme. The scholarships are to enable British students of insufficient means to obtain full training for the profession in the Architectural Association's School of Architecture. The following five students already at the school have been selected for the scholarships: D. S. Pearce, R. R. Wilkins, R. A. Kirby, A. F. Barnard and R. Wilson. Mr. Knapp-Fisher said that grants would be made for foreign travel during the scholarships.

Full particulars of the scholarships are given on page 152.

Standardizing Natural Asphalt

An inaugural luncheon of the Natural Asphalt Mine-Owners and Manufacturers' Council was held at the Café Royal, Regent Street, W., on Tuesday of last week. Mr. F. M. Bond, who presided, stated that the Council was a body representative of the principal asphalt companies in the United Kingdom, and had been formed for the purpose of co-ordinating and standardizing the manufacture and application of mastic asphalt for building construction in regard to raw materials, technical equipment, research and executive practice. The Council's primary object had been achieved and standard specifications had been drawn up governing the three main classes of mastic asphalt: roofing, damp-course and basement work and flooring. In future the joint resources of raw materials, which included many of the best known asphalt mines in the world, would be at the common disposal of all members of the Council, and the standardizing of manufacture, according to the findings of the experts, had thus been made practicable.

In order to ensure that the asphalt shall be carefully applied on the contract, a Standard Code of executive practice had also been drawn up which all companies represented would undertake to observe.

The Council has prepared an illustrated brochure, containing numerous diagrams, showing methods of construction in buildings embodying the uses of asphalt. Copies are obtainable from the offices of the Council, Terminal House, Westminster, S.W.1.

Public Relations Committee

The Honorary Treasurer desires to acknowledge having received the following subscriptions on behalf of the Special Committee for Public Relations of the Building Industries National Council:

The Royal Institute of British Architects	£25	0	0
Bath and Portland Stone Firms, Ltd.	52	10	0
British Magnesite Industries, Ltd.	5	5	0
Candy & Co., Ltd.	10	0	0
Carson, Walter, and Sons, Ltd.	5	5	0
Carter & Co., Ltd., ...	250	0	0
Cement Marketing Co. (first instalment of £500)	125	0	0
Dent and Hellyer, Ltd.	10	10	0
Hadfields (Merton), Ltd. ..	5	5	0
Ham River Grit Co., Ltd. (first instalment of £100)	25	0	0
Harrogate Red Brick Co., Ltd...	25	0	0
Imperial Chemical Industries, Ltd.	105	0	0
Kleine Co., Ltd.	25	0	0
Lafarge Aluminium Cement Co., Ltd.	25	0	0
Limmer and Trinidad Lake Asphalt Co.	52	10	0
London Brick Company and Forders, Ltd.	500	0	0
Mellowes & Co., Ltd.	25	0	0
Patent Impermeable Millboard Co.	5	5	0
Pilkington Bros., Ltd.	250	0	0
Ruberoid Co. Ltd. (first instalment of £100)	50	0	0
Shanks & Co., Ltd.	26	5	0
Yorkshire Amalgamated Products, Ltd. (first instalment of £100)	25	0	0
E. J. and J. Pearson, Ltd. ..	10	0	0
	£1,637	15	0

The following subscriptions have been promised:

Coronet Brick Co.	£50	0	0
Crittall, R., & Co.	100	0	0
Hemel Hempstead Patent Brick Co.	25	0	0
Kerner-Greenwood & Co., Ltd.	50	0	0
Moler Products, Ltd.	25	0	0

Subscriptions should be sent to the Special Committee for Public Relations, and addressed to the Honorary Treasurer, Mr. Oswald Healing, F.S.I., at 5, Duke Street, Adelphi, W.C.2. As pointed out in this week's leading article, no contribution is too small to be effective.

Lighting Conferences

The first of a series of evening conferences for the exchange of professional experience on lighting matters was held at the Lighting Service Bureau, 2 Savoy Hill, W.C., on Wednesday last. These conferences, to be held every alternate Wednesday until March 29, have been arranged by the Joint Lighting Committee of the Architectural Profession and the E.L.M.A. Lighting Service Bureau, the architect-members of which are Messrs. A. B. Knapp-Fisher, L. H. Bucknell, C. Lovett Gill, Grey Wornum, Howard Robertson and J. P. Waldram.

Mr. W. P. Moir, Chairman of the E.L.M.A., in opening the conference, expressed the hope that during the series architects and engineers would find practical solutions to many lighting problems, and in so doing give better service to the community at large. A paper was then read by Mr. W. J. Jones on "Electric Lighting," and the discussion opened by Mr. Robert Atkinson.

Following is a list of the forthcoming conferences:—

February 1: "Domestic Lighting." By R. O. Ackerley. Discussion to be opened by C. Lovett Gill, F.R.I.B.A. February 15: "Lighting of Commercial Buildings." By H. C. Wheat. Discussion opened by L. H. Bucknell, F.R.I.B.A. March 1: "Lighting of Schools." By C. H. Hughes. Discussion opened by T. S. Tait, F.R.I.B.A. March 15: "Floodlighting." By H. Lingard. Discussion opened by Howard Robertson, F.R.I.B.A. March 29: "The Lighting of Theatres and Cinemas." By Waldo Maitland. Discussion opened by G. Grey Wornum, F.R.I.B.A.

R.I.B.A.

HENRY L. FLORENCE BURSARY, 1933

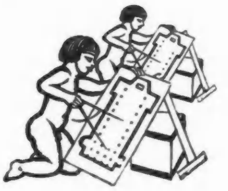
As announced in our last issue, the R.I.B.A. Henry L. Florence Bursary has been awarded to Mr. Theodore Fyfe, M.A., F.R.I.B.A., Director of the Cambridge University School of Architecture.

The Bursary, which is awarded for the first time this year, is of the value of £360, and its general object is the study of the Greek and Hellenistic architecture of the Mediterranean basin with a view to making available for architects, from an architectural standpoint, the results of the more recent archæological researches. The holder of the Bursary is required to spend a period of not less than six months in travel and research.

Candidates must be Members of the Royal Institute of British Architects.

Mr. Fyfe's experience at Knossos and his special qualifications will enable him during the six months he will spend in travel and research to present a report from an architectural standpoint, which will be looked forward to with great interest.

COMPETITION NEWS



Architectural Assessment

[On page 102 of last week's issue we published a letter from Mr. Kendrick Edwards on "Architectural Assessment." Following is his article on the subject.—ED., *A. J.*]

ARCHITECTURALLY, from educational and economic viewpoints, I consider that great waste is associated with architectural competitions. Sir Raymond Unwin, P.R.I.B.A., *has pointed out that each competitor cannot fail to learn much from each competition he enters; but could it be said that each competition contributes any advance in the art of assessing?*

When assessors traverse several sets of designs prepared by architects of varied attainments, as interpretations of the problems set up by the same conditions, the process involves studious thought and reasoned opinions. These, being unrecorded, constitute a most regrettable waste of valuable information, and although this is not the only waste to which competitions lend themselves, it nevertheless appears to the writer to be the one which inflicts the greatest loss of opportunity for progress.

Legal assessors, arbitrators and judges record, in their notes of evidence and their decisions, the facts and reasons which enable them to arrive at their judgments, with the result that our judicature has established precedents and laws which are our guiding stars of government. Further, as new thought and new basic facts present themselves, the traditions of experience, so accumulated for betterment, are utilized both in practice and in education.

The architectural competition system is an important feature in the policy of the R.I.B.A., which holds that the best results for clients are obtained by it. Some prospective clients are loath to accept this view, fearing that in binding themselves to accept the decision of the assessor or assessors, they may become the owners of a building which, in their opinion, might not be the best for its duties, or might be unsatisfactory in its appearance.

I understand that the professional reply which the R.I.B.A. gives is that the clients do not bind themselves to become the owners of a building which, in their opinion, might not be the best for its duties or might be unsatisfactory in its appearance. On the contrary, the R.I.B.A. tells the client that he binds himself to nothing except the engagement of the winner as his architect. He has then, if necessary, to alter his design until he has given his client exactly what the latter wants. But this is not sufficiently convincing, even to those who admit, as all should, that architects are specially trained to know how to plan for the best duty results, and also how to design for appearance according to the best æsthetic principles which culture has produced. Neither will it do for us to ignore the layman's diffidence and content ourselves with pressing home the R.I.B.A. view that the assessor's problem is to find the man who is best able to give what is wanted, irrespective of whether the employer can arrive at the same conclusion from the premiated design.

We must appreciate the fact that, even as it is not possible to ensure that assessors, who are all expert architects, shall agree upon their findings without the need of compromise, so is it even more impossible to ensure that promoters who may have little or no architectural knowledge, shall be convinced when we cry Ecce Homo, *notwithstanding that we have no common ground upon which the assessors' values can meet their understanding of these matters.*

From the standpoint of assessors, it would require an extensive treatise to define the reasons for those preferences which in their opinion establish the merit of one design over another. But there does not appear to be any sound reason why architects should not adopt a code of architectural assessment capable of giving numerical expression to the architectural value of a building, in a somewhat similar manner to that by which golfers express the value of a player.

If a golfer can reach a specified position after conforming with certain conditions, there is a numerical value for his attainment. The value is in inverse ratio to his efficiency, consisting of a series of debits upon an agreed scale. By what genius or by what application of art or science he may realize a minimum of debits, it would baffle the ingenuity of man to describe; but the aggregate of his debits for his 18 objectives, each being subject to varying conditions and requirements, establishes the total debit value of his endeavour. Similarly, with a building design, if we can devise an agreed schedule of debits for imperfections, it should be possible to arrive at an aggregate of debit values which would establish the efficiency with which it conforms with the requirements and conditions.

Such a system of assessing, connoted in schedule form, and translated into percentage of efficiency, would provide an evaluation figure which would be an index of the position the proposed building holds under architectural criticisms. A building would become known to experts as having a rated value of 40, 50, 68, 74 or of 100 in the highly improbable event of it having established 100 per cent. overhead efficiency as regards its duties, construction, and æsthetics. It would define its "handicap" intelligibly to both specialists and laymen interested in buildings.

Before preparing a schedule of debit values, it is necessary to establish in concise and simple terms the essentials which should govern architectural assessments, deriving them from the duties and aspirations which find expression in the decision to build.

Whatever may be the purpose for which a building is intended, probably no building scheme is projected which does not owe its origin to the need of an enclosure within which certain duties shall be performed. Its excellence as a building will therefore primarily be established by the efficiency with which it enables those duties to be performed, the economy it permits in numbers and movements of staff, and convenience of access and circulation for the interested public. We therefore establish as the first cardinal essential in architectural assessment:—

The attainment of the closest possible approximation to 100 per cent. efficiency, with its attendant minimum administration and organization costs.

It is an axiom that simple construction realizes economy in first cost; therefore, when 100 per cent. efficiency in simplicity of construction can be attained in conjunction with 100 per cent. duty efficiency, the client has the happiest of results, namely, minimum first cost and minimum administration costs. But this is unattainable unless the building is required for duties having 100 per cent. of simplicity. This means it is usually essential to compromise.

For example, a building required for complex duties may be designed of simple construction with a low percentage of duty efficiency; and the result is low first cost and high administration costs. Or it may be designed with complex construction with a high percentage of duty efficiency; and the result becomes high first cost and low administration costs. Time now enters into the problem, because if the building has only to function for a short period, the low first cost is obviously preferable; but if for a long period, the high first cost is the better. It also follows that if a building for complex duties is intended to be a model of high efficiency planning, then simplicity of construction must be sacrificed whenever it hazards the attaining of duty efficiency. Fortunately, the expert use of modern steel construction frequently solves this problem without violating æsthetics.

We can now state as the second cardinal essential in architectural assessment:—

The attainment of that closest possible approximation to 100 per cent. construction efficiency, which may be possible after satisfying the first cardinal essential.

Beyond the duties and construction of the building, there is the aspiration, which the great majority of clients have, that their building should possess such internal and external beauty as shall provide a satisfying expression of its purpose, thereby conserving and increasing its amenities, This introduces the subject of æsthetics.

which provides us with the third cardinal essential in architectural assessment :—

The attainment of that closest possible approximation to 100 per cent. æsthetic efficiency which may be possible as an harmonious accompaniment to the duties of the building.

These three cardinal essentials for the design of a building should therefore constitute the basis for assessment of architectural designs, in conjunction with a standardized code defining limits of assessment values for classified architectural adverse criticisms. It will be found to be simpler to think of the assessment values in terms of adverse criticism, namely, as debits for shortcomings rather than in terms of appreciation as credits for attainments ; that is to say, to charge against a design figures representative of the gravity of its shortcomings.

We may now develop a system of analysis for the purpose of classifying the shortcomings of a design, and after careful consideration it is suggested that these should be classified for each cardinal essential, under two sections—Defaults and Blemishes—each having two sub-sections against which would be stated the minimum and maximum debits which are to be used according to the assessors' evaluation of their gravity.

Defaults.—These consist of the omission of a stated requirement or of non-conformity with a condition.

Defaults may be only nominal, or relatively so ; but it is only fair that a distinction should be made between a competitor who conforms and one who defaults. Therefore, for nominal defaults, debits vary from minimum 1 to maximum 10. A default may be redeemed by the substitution of an acceptable alternative provision, in which event no debit would obtain.

A serious default is one which is unredeemed and will be debited minimum 11 to maximum 100. But if a default should fall within the category of requirements or conditions deemed indispensable, then the design would be disqualified under the condition which prescribes disqualification for failure to provide substantially what is specified.

Blemishes.—These consist of imperfections, faults, and deficiencies, but a blemish may be either redeemable or irredeemable. Redeemable blemishes will be debited minimum 1 and maximum 10. Irredeemable blemishes will be debited minimum 11 and maximum 100.

An assessment schedule may now be designed to give effect to this endeavour to establish an intelligible code for architectural criticism, but it is necessary to realize that some compromise with values is essential if we are to remove architectural criticism from its hitherto inarticulate code by relieving it of its mysticism, and enabling it to approach within measure of being reasonably expressive in answering the question " Why is this design better than that " ?

The information made available by such a schedule as that reproduced on this page is more far-reaching than is immediately apparent.

1 : The grand total of debits establishes a reliable basis for comparison of designs.

2 : The totals for the three cardinal essentials disclose relative values of these essentials and assist directional " choice."

ARCHITECTURAL COMPETITION ASSESSMENT SCHEDULE

CARDINAL ESSENTIALS		(1) DUTIES				(2) CONSTRUCTION				(3) ESTHETICS			
SECTIONS		DEFAULTS		BLEMISHES		DEFAULTS		BLEMISHES		DEFAULTS		BLEMISHES	
SUB · SECTIONS		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DEBITS PER ITEM	MINIMUM	1	11	1	11	1	11	1	11	1	11	1	11
	MAXIMUM	10	100	10	100	10	100	10	100	10	100	10	100
~ ITEMS ~	BROUGHT FORWARD												
CARRIED FORWARD													

ARCHITECTURAL COMPETITION ASSESSMENT SCHEDULE
~ SUMMARY ~

CARDINAL ESSENTIALS	(1) DUTIES				(2) CONSTRUCTION				(3) ESTHETICS			
SECTIONS	DEFAULTS		BLEMISHES		DEFAULTS		BLEMISHES		DEFAULTS		BLEMISHES	
SUB · SECTIONS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SUB · SECTION TOTALS	100	300	200	500	10	100	60	400	40	200	50	500
SECTION TOTALS	400		700		110		460		240		550	
ESSENTIALS TOTALS	1100				570				790			
DEBITS GRAND TOTAL	2460											
SCHEDULE CO-EFFICIENT	10,000											

DEBIT TOTALS, STATED AS PERCENTAGES OF SCHEDULE CO-EFFICIENT
GIVING PERCENTAGES OF INEFFICIENCY & CORRESPONDING EFFICIENCIES

SUB · SECTIONS	INEFFICIENCY	1·0	3·0	2·0	5·0	0·1	1·0	0·6	4·0	0·4	2·0	0·5	5·0
	EFFICIENCY	99·0	97·0	98·0	95·0	99·9	99·0	99·4	96·0	99·6	98·0	99·5	95·0
SECTIONS	INEFFICIENCY	4·0		7·0		1·1		4·6		2·4		5·5	
	EFFICIENCY	96·0		93·0		98·9		95·4		97·6		94·6	
CARDINAL ESSENTIALS	INEFFICIENCY	11·0				5·7				7·9			
	EFFICIENCY	89·0				94·3				92·1			
GRAND TOTALS	INEFFICIENCY	24·6											
	EFFICIENCY	75·4											

3 : The debit totals of sections or sub-sections are simply transposable into percentages of efficiency for comparison with the ideal of 100 per cent. efficiency. The grand total may similarly be expressed as an overhead percentage of efficiency.

4 : The overhead percentage figure provides a numeral rating value for the design, and therefore for the building.

5 : The concise notes of defaults and blemishes under " items " along with the connoted values provide an invaluable recorded analysis for reference, etc.

6 : As an analysis of a design, the assessment schedule is valuable for tuition purposes.

7 : The analysis constitutes a useful basis for preparation of a report.

8 : Each assessor may individually note his items and values.

9 : When more than one assessor is appointed, the respective totals may be averaged to obtain an average assessment.

10 : This analytical system of assessment sustains the individual opinions of assessors, and neutralizes the preponderating weight of overbearing or ultra-persistent personalities.

If this article stimulates endeavour to produce any studied system which is an improvement upon present practice, it will have served its purpose. By so doing, it will have helped towards an antidote to that dissatisfaction which most competitors feel, even though few express it, when awards are made in favour of designs which are seriously lacking in the things that matter, although resplendent with those which do not.

KENDRICK EDWARDS

SMALL HOUSES

The assessors' award in the Cement Marketing Co., Ltd's. competition for designs for houses promoting the artistic use of cement will be announced at a conversazione to be held in the restaurant at the new Shell-Mex House, Strand, on Tuesday next, January 31, to which all entrants have been invited. Selected designs will be displayed for inspection at 6 o'clock ; at 6.30 a report, illustrated by lantern slides, will be presented by the assessors, Messrs. Louis de Soissons, F.R.I.B.A., Howard Robertson, F.R.I.B.A. and P. D. Hepworth, F.R.I.B.A.

Competitions Open

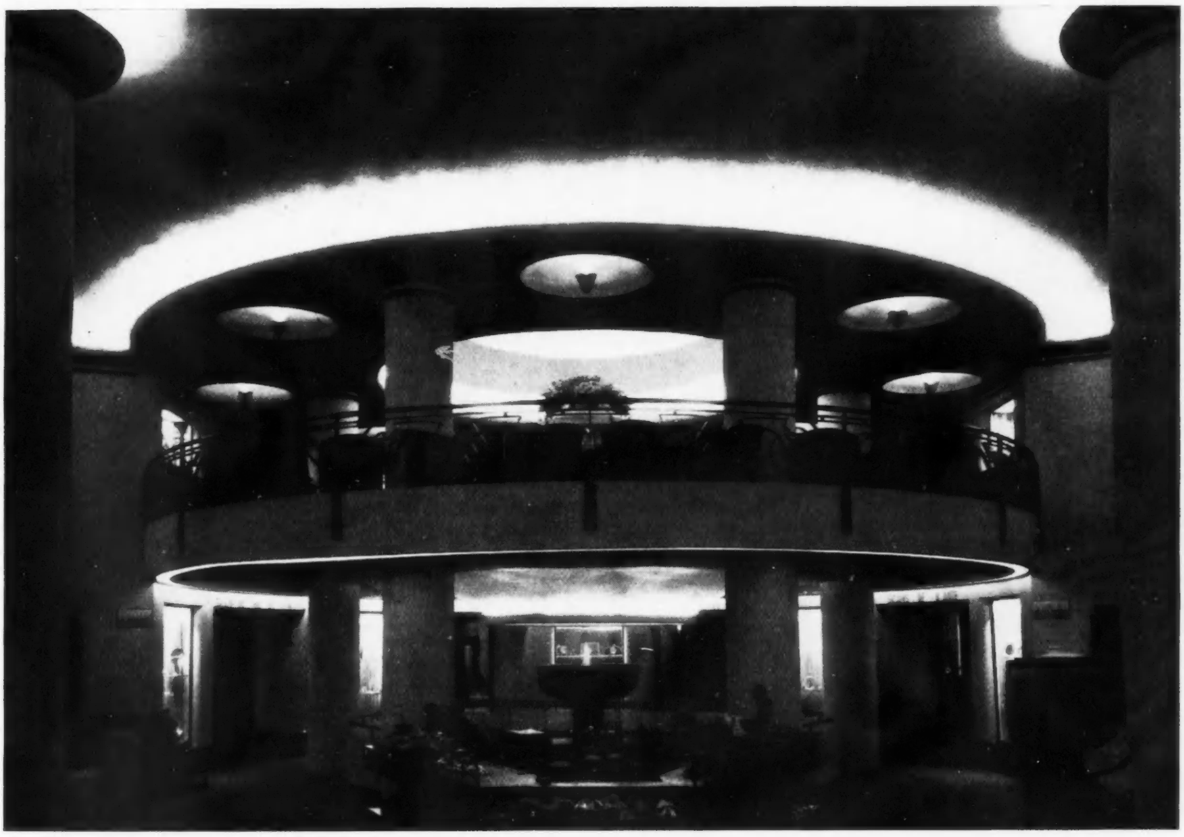
***February 1.**—The city of Stockholm invites designs for a town plan for the part of the town called Lower Norrmalm. 60,000 kronors (£3,077) in prizes, 1st premium, 20,000 kronors (£1,025).

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. Open to all architects, architects' assistants, and architectural students. Assessors : A. B. Knapp-Fisher, F.R.I.B.A. (President of the Architectural Association) : G. Grey Wornum, F.R.I.B.A. ; and Howard Robertson, F.R.I.B.A. Also, two members of the Cornish Quarry Masters' Association. First prize, £50. The design, etc., is to be sent to the Secretary of the Architectural Association, 34-36 Bedford Square, London, W.C.1, by Friday, March 24, noon. Full particulars of the competition may be obtained from the Secretary, Architectural Association, 34 Bedford Square, London, W.C.1.

***May 31.**—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

**Full Particulars of the above competitions were published in our issue for December 7, 1932.*

ELECTRICITY SHOWROOMS IN PARIS



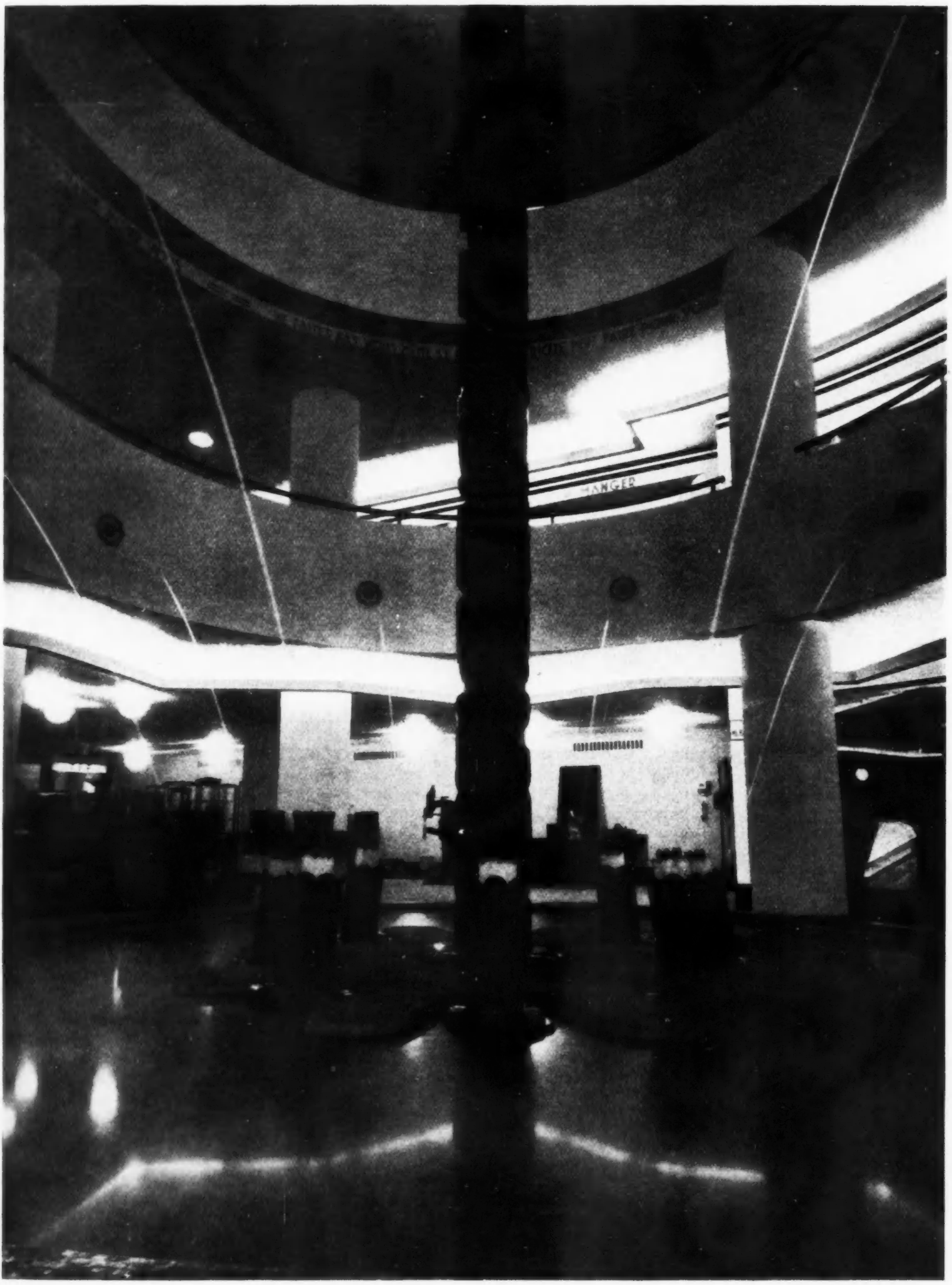
DESIGNED BY LAPRADE AND BAZIN

The site of the *Office Central Electrique* ("Ocel") in Paris resembles an isosceles triangle with the two base angles lopped off: the Boulevard Haussmann and the Rue Taitbout are its long sides, and the main entrance is at the acute angle where they meet. At what would be the centre of gravity of the triangle is placed the striking "Oculus" fountain, which, rising from the sub-basement, penetrates through openings to above the ground floor level: its head figures in the above view and the details of its design are shown in the illustrations overleaf. The bowl carries jets set obliquely, and streams of water also spout from the first tier of the galleries that encircle it, falling into the pool below. Above the uppermost tier is the tea room shown in the adjacent photograph. Over this rises a glazed dome. On the side windows around this room and around the upper gallery is inscribed the injunction: "Do not do yourself what electricity can do for you."

Grouped skilfully about this spectacular nucleus, are showrooms, a beauty parlour and confectionery department, while on the top floor are are offices. A small cinema hall is included.

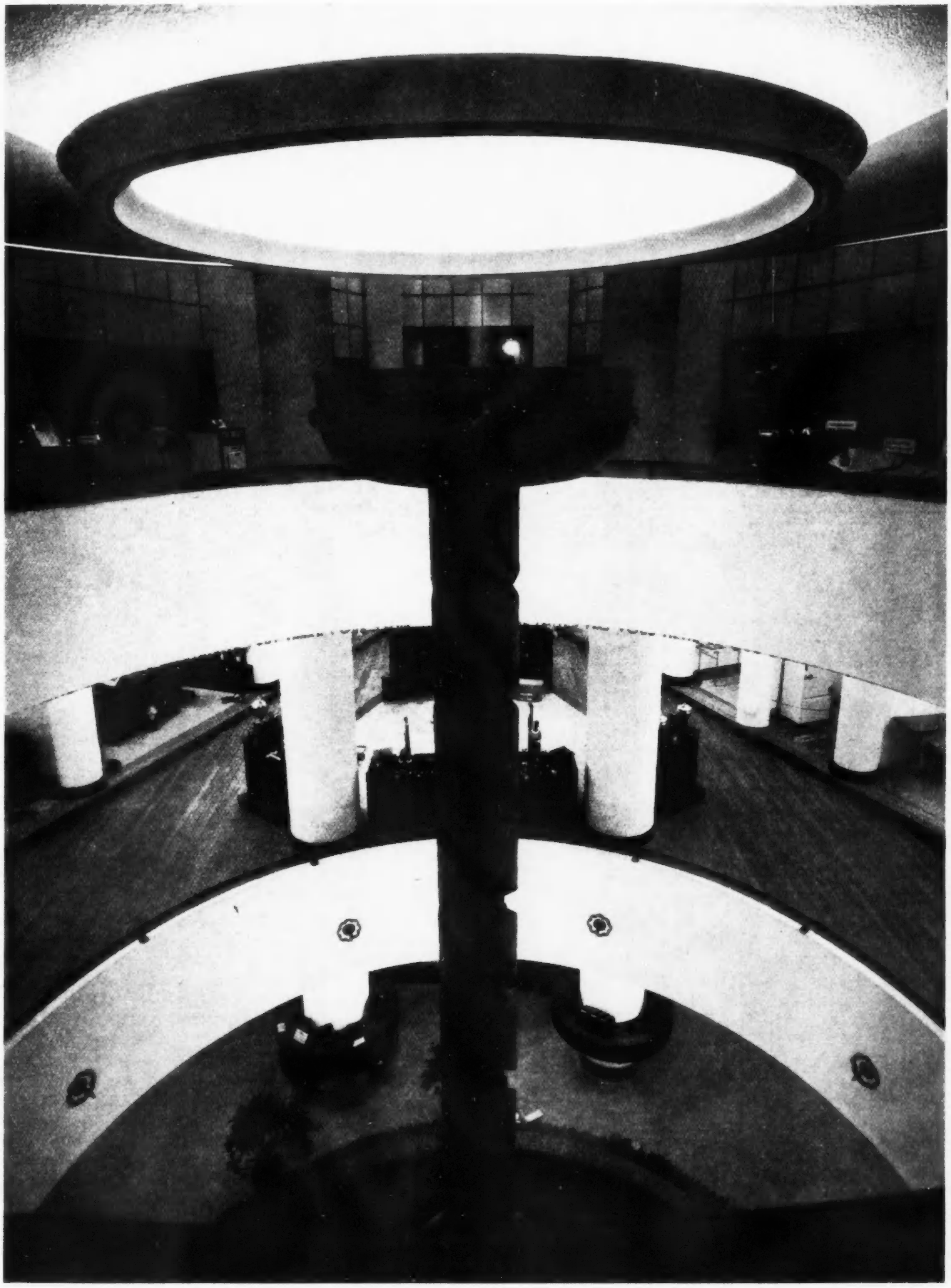
ites pas
peut faire pour vous

ELECTRICITY SHOWROOMS IN PARIS:



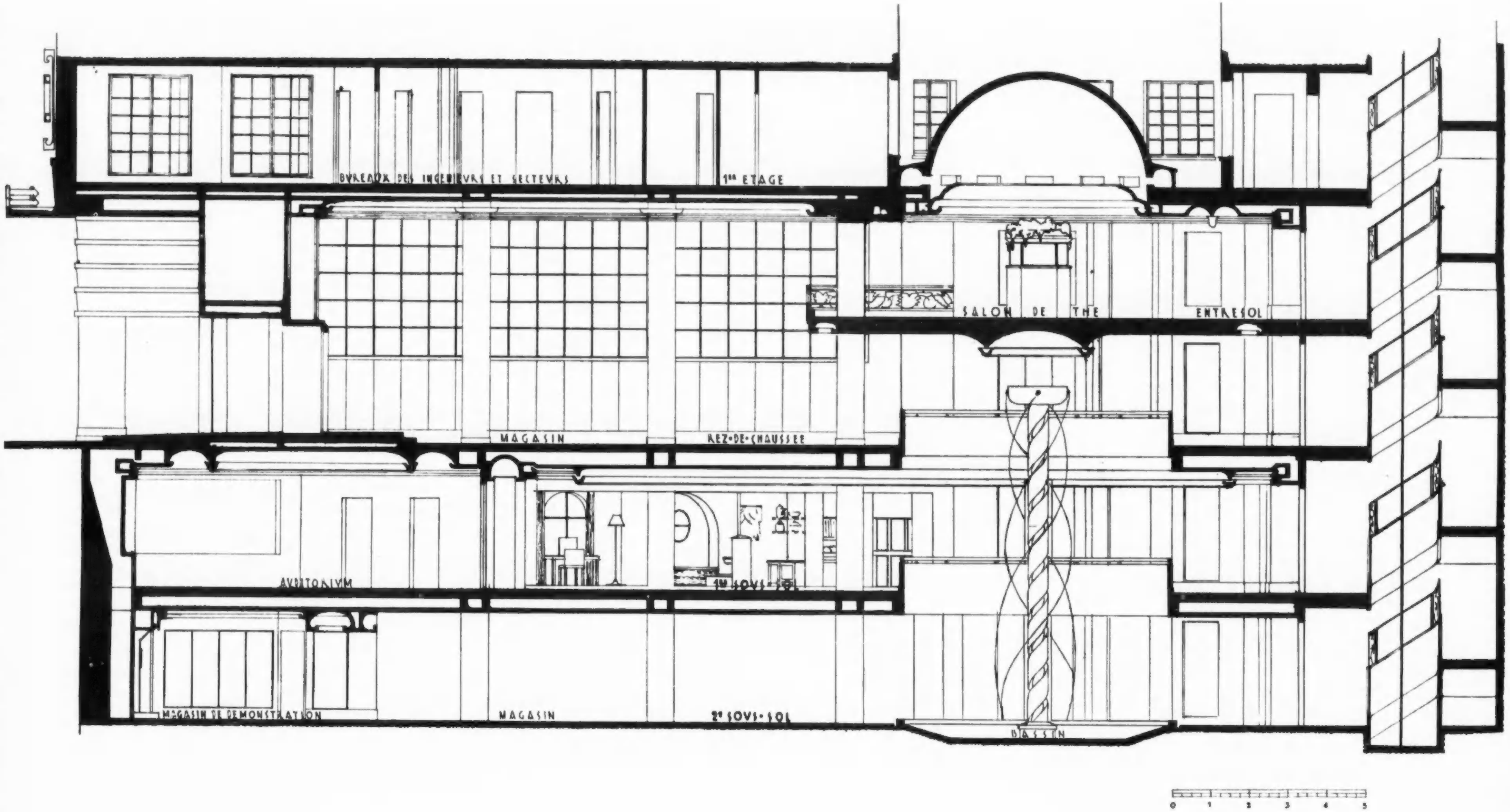
THE SUB-BASEMENT POOL AND BASE OF THE "OCULUS" FOUNTAIN—

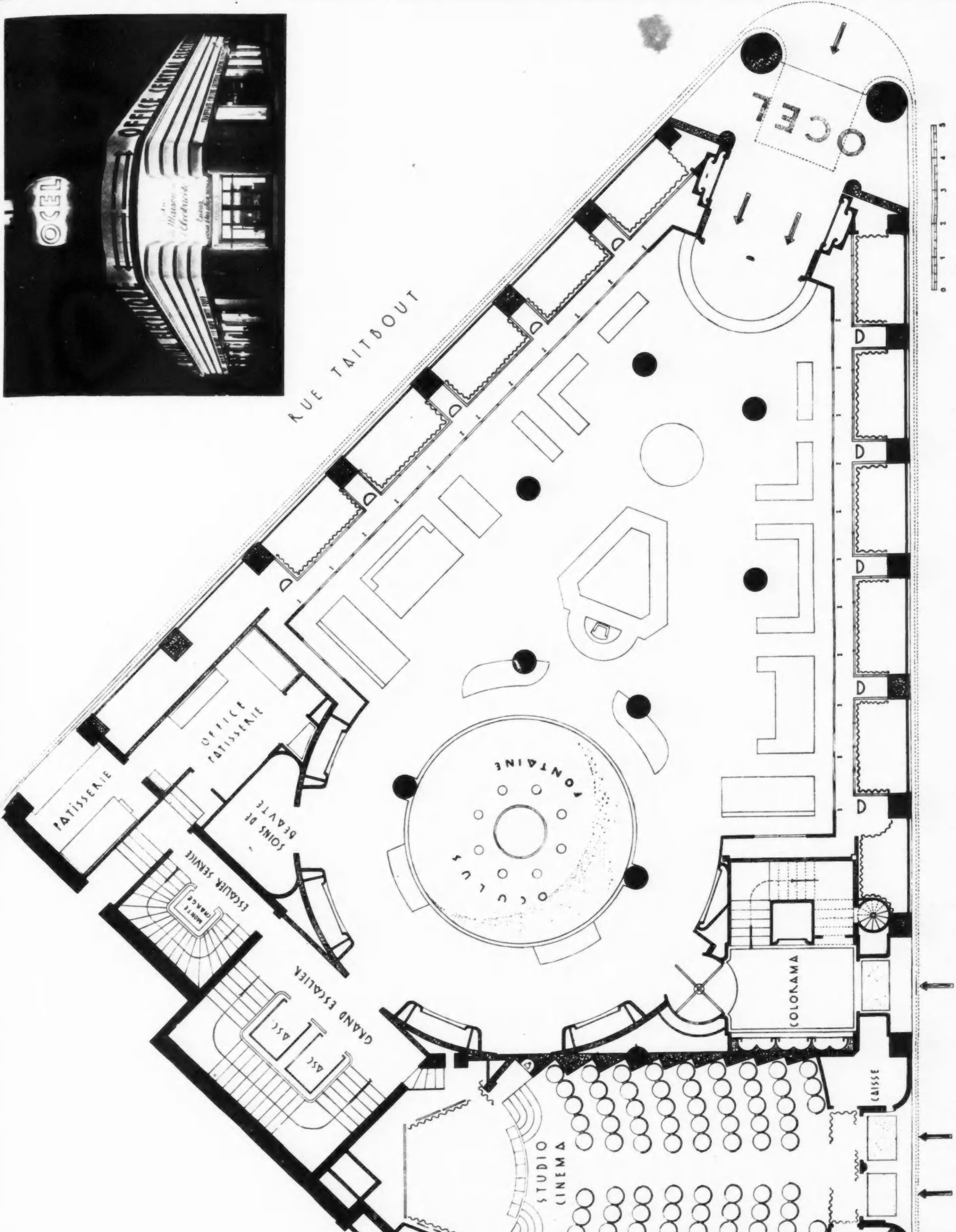
DESIGNED BY LAPRADE AND BAZIN



—AND ITS HEAD, SEEN FROM GROUND FLOOR LEVEL

ELECTRICITY SHOWROOMS IN PARIS: DESIGNED BY LAPRADE AND BAZIN


BVREAVX DES INGENIEVRS ET SECTEVRS
1ER ETAGE
SALON DE THE
ENTRESOL
MAGASIN
REZ-DE-CHAUSSEE
AVDITORIVM
1ER SOVS-SOL
MAGASIN DE DEMONSTRATION
MAGASIN
2E SOVS-SOL
BASSIN
0 1 2 3 4 5


OCEL
OFFICE CENTRAL ELECTRIQUE
RUE TAITBOUT
OCEL
PATISSERIE
OFFICE PATISSERIE
SOINS DE BEAUTE
ESCALIER SERVICE
MONTE CHARGE
GRAND ESCALIER
ASC
ASC
OCULUS
FONTAINE
COLORAMA
STUDIO CINEMA
CAISSE
LAVABO
0 1 2 3 4 5

Cross-section between the Boulevard Haussmann and the Rue Taitbout; and ground-floor plan

LETTERS FROM READERS

National Planning

SIR,—I should like warmly to congratulate you on the special New Year's issue, with its admirable articles and useful information on this all-important question. I think it speaks well for the soundness and virility of the great Building Industry that, at a time of wide-spread depression like the present, instead of sitting still with folded arms and waiting for things to improve of themselves, its leaders are seeking a future which is wisely planned and expounding their views with no uncertain voice. And this planning is to be on a nation-wide basis, not only for our own industry, but for the country as a whole.

It seems to me, Sir, that we, whose work is essentially based on planning, should take the lead in this matter. The whole world is suffering from lack of direction and planning in relation to currency, industrials and economic policy.

In our own country an unwise "economania" in Government circles has resulted in the stoppage of public and private building and appalling unemployment, at a time when costs are lower and money is cheaper than they have been since 1914.

National housing policy, again, which since the war has been subject to a certain measure of planning and control under successive Acts, is now to be officially reversed. Except for slum clearance, which is not sufficiently lucrative to be freed from Government and municipal direction and financial assistance, the provision of small houses for letting is now to be left to private enterprise, with apparently no safeguards as regards density, layout and design, except such general ones as may be available under town planning schemes, which will necessarily take many years to prepare.

Here is surely a job in which, with mutual confidence and goodwill, architects and builders can combine in an endeavour to prevent further spoliation and wastage of assets in town and country. It is an aspect of national planning which we shall do well to keep in the forefront.

With best wishes for the success of your efforts,

T. ALWYN LLOYD
(CHAIRMAN, NATIONAL HOUSING AND TOWN PLANNING COUNCIL)

SIR,—Much interest has undoubtedly been aroused in the movement to substitute a concerted plan of wise expenditure for the present foolhardy measures of false economy decreed by the Ministry of Health.

This common-sense project as applied to the Building Industry and allied trades, which was so comprehensively dealt with in the New Year number of THE ARCHITECTS' JOURNAL, has now been further supplemented by well-reasoned suggestions for the immediate formation of a National Planning Board, whose objective would be to review the country's needs and resources and to seek public financial support in its national scheme of reconstruction.

As is indicated in the leading article and the letter from Mr. W. R. Davidge in the last issue of the JOURNAL, a National Planning Board of this kind necessitates the unrestricted co-operation of representatives of the various branches of production and distribution.

Interest in the scheme therefore reaches far beyond members of the building trade and architectural profession, and it is not unnatural that criticism will be offered from many quarters.

The first matter which needs to be challenged concerns the grossly misleading and wholly erroneous statement that the joint stock banks have been engaged in hoarding on an immense scale. If I may be allowed to state the view of an outside party, the fact of the matter is that, far from placing any restriction on advances for reasonable and legitimate industrial enterprise, the banks have found that a plethora of credit is already available for this purpose, and have therefore been forced to turn to the Bill Market in the hope of finding some remunerative channel for the employment of their funds.

Let us pass on now to the work of the National Planning Board.

If the scheme is to be successful it must have national support. That the nation is able to support it financially is evidenced by the greatly increasing total of deposits held with the joint stock banks, and there is also every reason to believe that support would not be lacking if the public were convinced that the reconstruction was on a well-planned and sound commercial basis.

The architect must play a very prominent part in the scheme. The public does appreciate an architect-planned house, but the design must cater for individual requirements, not merely for the architect's own fanciful ideas.

A house without cupboards, such as that of which Mr. Howard Robertson tells us is contemplated in connection with an extreme economy plan in America, would not be tolerated by the British public.

Therefore if the National Planning Board is to be of real service to the nation, it must study very closely the requirements of the public for whom it is to cater, and must evolve a plan which will combine beauty with utility.

H. D. G.

SIR,—The Englishman has traditionally regarded two conditions as indispensable to a tolerable life—the right to grumble at the weather and the right to muddle through in all things.

The weather will no doubt continue to justify its special place in English life. But are we going to be still content to muddle through?

One should be cautious in detecting change in the mentality of a creature so essentially conservative as an Englishman. Yet have the old ways the same hold as, say, a generation ago? Are the Ottawa agreements—and some developments which preceded them—portents? Or are they merely isolated events without any general significance?

The state of the world today, at any rate, is a sufficient condemnation of the old outlook and the muddled methods which it inspired. One is less certain about what will succeed it and where the beginning will be made. The Englishman, with his inborn gift of compromise, will probably evolve a technique of action between extreme individualism on the one hand and cast-iron State control—as in Russia—on the other.

An impressive case for a beginning, as Mr. C. B. Purdom showed in your New Year issue, can be made for a National Scheme of Town Planning.

Certainly, I think, housing development should be taken out of politics and given an atmosphere favourable to a long and comprehensive view which promises orderly development in accordance with the real needs of the situation.

In my opinion :—

1 : A National Planning Board in any sphere, if it is to be assured of success, would probably have to be the creation of the legislature, on the same lines as the Central Electricity Board, etc.

2 : Its function would be, broadly, to initiate and co-ordinate development in its special province. Its exact functions would vary according to the sphere to which it applied ; in some cases it would mainly control and in others it might both control and undertake development.

3 : Personnel would be the crucial aspect of any such system. It may be representative up to a point, but should not be composed of strong partisans. Outstanding qualities which are needed are executive ability, balanced views and the faculty of forming opinions from a mass of conflicting evidence. One of the greatest difficulties in the scheme

is to devise machinery which will result in the best possible appointments being made.

(SIR) HAROLD BELLMAN
(MANAGING DIRECTOR, ABBEY ROAD BUILDING SOCIETY)

Combating the Speculative Builder

SIR,—As there seems to be some interest in houses that are competing with the average speculative type, we are enclosing a plan and perspective of some houses that are being built in Darlington.

They are being built by a firm of local contractors—Messrs. Lambell and Sutton—by contract, the whole of the details being carefully worked out by us to be of the most simple character.

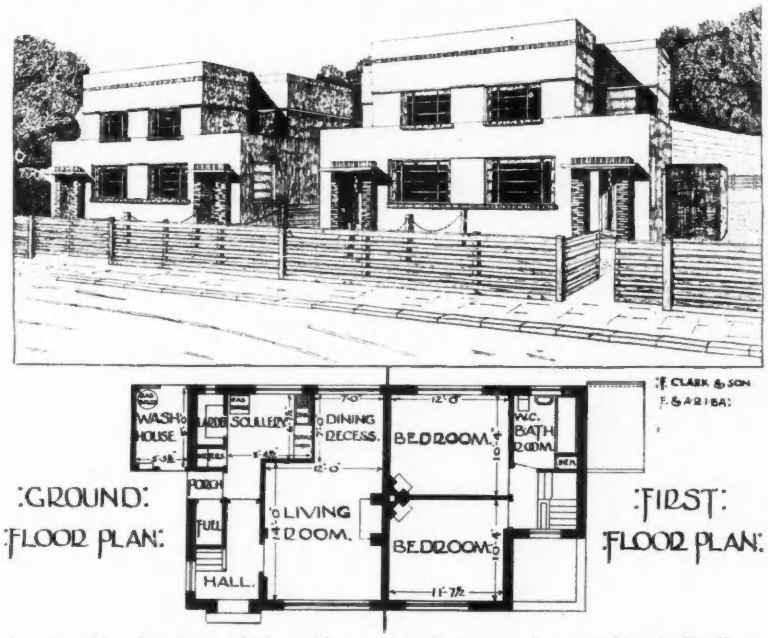
The walls are finished in cream stucco with local rustic brick dressings; 11-ins. cavity walls, and steel windows, built direct into brickwork, these being specially made windows. The price per house, including fencing, paths, drainage, etc., is £370, exclusive of land.

Although these houses are small they are about the size to which the speculative builder in this town confines his particular attention.

We are sending you this drawing and information trusting you will publish them, as no doubt they will be of interest to some members of the profession.

F. CLARK AND SON
(DARLINGTON)

COMBATING THE SPECULATIVE BUILDER



A perspective drawing and plan of houses now in course of construction in Darlington from the designs of F. Clark and Son. In a letter on this page the architects point out that these houses are about the size to which the speculative builder in this town confines his particular attention.

Architectural Wrong-Doing

SIR,—May I be permitted to congratulate you on your New Year number, and the way you have carried on in the past year—the arrival of the JOURNAL has brightened my breakfast table on many Wednesdays. You have kept us in touch with the new, and laboured manfully for the preservation of the old—especially in the Carlton House Terrace case.

If I might be permitted to make a suggestion, it is that you should spend some space in an exploration of the state of affairs which permits so much architectural wrong-doing—because the Terrace is only one among many other examples. Day by day we hear of pylons across the Downs, ribbon development and bungaloid growths destroying the face of England. How does it all come about? Could we but find the cause a cure might be devised. These technocrats are doubtless quite respectable citizens, but why should they be so blind to beauty, and strangely insensitive?

I trace all the trouble to an extraordinary institution called the School Certificate—an examination set by the Oxford and Cambridge Universities Joint Board. All boys and girls have to pass this, and the history papers never mention construction but concentrate on destruction—it is battles, not building, and politics rather than planning. As the School Certificate is the end of education for the great majority of young people, they pass out into the world without any ideas of what John Burns called the "Amenities" in the 1909 Act, and they are prepared to do any of the wrong things which I have mentioned because they do not know any better.

So that it seems to me that unless we are prepared to see that our clients are properly educated, the best we can hope is, that when they come to us, they will ask for something old-fashioned with "Ye Olde Tea Shoppe" as their ideal.

I am afraid you have not much chance with such a people. Regent Street as rebuilt is a splendid example of twentieth-century architecture. From your point of view it may be very bad, but considered from the historical standpoint it is splendid and just like the people who produced it—as all architecture is.

C. H. B. QUENNELL

"The New Function of the Architect"

SIR,

[At present individual architects are at the mercy of vulgar accidents, such as having a flow of dinner-talk, or being in a business syndicate, or knowing a lord. This Institute (R.I.B.A.) has to win a place for the ablest building directors, considered as essential ministers of civilization, and to see to it that public works are done in the proper way. We have, in the meantime, merely to satisfy the whims of generously-minded employers, and until we have a life independent of that hanging-on, no architecture is possible. One of the most important things in modern architecture is the Art of Dining Out.—LETHABY]

From Mr. Howard Robertson's article in your New Year issue on what he calls "The New Function of the Architect" we are evidently intended to gather that, up till now, "the architect has been too much of a gentleman"; that in the past he has never done his duty and, in a word, never performed his true function.

In our rush to reorganize the world it might be well to ask ourselves if we have diagnosed the disease correctly and if we are setting the right way to cure it.

The world has lasted a long time and may last an even longer time, and a backward glance through history suggests that architecture as an art or even as good building has been one of the main means of self-expression of the peoples of all ages, and has been, as it were, a chart of the religious and social life of the people.

In the middle ages there could have been little organization, as we understand the term, and I suggest that an over-organized profession may lead us into considering architecture as even more of a business than it has become today.

We are told that the architect "cannot go out into the worlds of banking, business and industry and sell himself and his ideas." Perhaps not, until "the code" is altered, but the successful (commercially) architect has been known to do so already and to advise him to do it now is no new thing.

Art cannot be organized. It either exists or does not. Organization usually ends in commercialism and we have experienced quite a lot of commercialism since the War.

I do not wish to throw cold water on any live movement to better the conditions of life, but I suggest that we are in danger in that life, viewed as a materialistic problem divorced from the beauty of art and considered as a mere matter of function and organizing, may lead us astray at what might be termed the great cross-roads into the future.

Might I be allowed, Sir, to refer further to your New Year Number?

On page 46 you refer to the housing of a certain Corporation and talk of a £271 all-in price and appear to commend it as against the £1,100 immediate post-war house by the same Corporation.

Such figures are not only misleading but inaccurate and, I would respectfully suggest, are a disservice to the profession. The layman reading such a report cannot be expected to interpret it accurately, and I am sure, Sir, that if you even had photographs of the houses under consideration before you, you would agree that the latter are not only a real asset to the amenity of the community but as a business proposition are of infinitely greater value. The £1,100 house will be a thing of beauty 200 years after this (if mankind is not by that time all living once again in caves and reinforced concrete tunnels), while the £271 all-in house will look like a slum in ten years or less. A price without relation to quality and beauty is meaningless. The £1,100 house has a freshness and quality which ranks it with the best simple Renaissance work of Northamptonshire and the other has neither.

One other point out of many raised by your progressive and comprehensive New Year Number. Assuming that the £30,000,000 amount of building work abandoned by the Municipalities since last May was to have been carried out by official architects, have their staffs been reduced by that amount, relatively? A vital point for the ratepayers.

If this work could have been distributed among private practising architects it would have given, at 5 per cent., an income of £1,000 to 1,500 architects.

Again, if the £30,000,000 was projected work abandoned, what about work since last May, which, in the ordinary course, would have been projected and never saw the light of day, and what about work which would have evolved naturally out of the £30,000,000, if it had not been abandoned?

This may appear all theory but it appears logical and gives us a ghastly picture of the state of affairs in the profession. Under the circumstances we must perhaps risk "ceasing to be gentlemen" and go out into the market place, but if we must do so let us remember that it is more important to make a life than a living and that we are the real custodians of most that makes modern life possible, and guardians of amenity and heirs to the beauty of all past ages.

I hope Mr. Howard Robertson will allow me to wish him and his Public Relations Committee real success in their altruistic endeavours.

WILLIAM DAVIDSON

Information Sheets

SIR,—No one can fail to admire the practical aims of Messrs. Burnet, Tait and Lorne's rationalization scheme. The attitude of mind which could conceive and carry out so comprehensive a record as, for instance, Information Sheet No. 1 would be as valuable in assisting the staff to work with maximum efficiency, as the Sheet itself.

There can be no doubt that it is a great economy of time to have a systematic record of such data as can be regarded as indisputable facts, and therefore not subject to alteration; but, as regards such details as are a matter of opinion or circumstance, constant revision would be necessary in the light of fresh experience and changes in materials and fittings.

There is the possibility that the use of standard types might tend to eliminate sufficient consideration of individual requirements, as it is obviously so much quicker and easier to use an available copy than to work out a variation to effect an improvement. It is unlikely that the young draughtsman himself would absorb so many facts, and, as facts become knowledge, which is subjected to the exercise of the user's critical judgment, his work might tend to become stereotyped and less intelligent.

With these considerations in mind, the use of Information Sheets is undoubtedly helpful, and both in this and other ways every effort should be made to rationalize the work of the office, though the best methods of doing so must be evolved by each according to his own needs.

REES PHILLIPS
(ALFRED SAXON SNELL AND PHILLIPS)

SIR,—I think your JOURNAL is to be congratulated on publishing the standardized sheets of plumbing and other data prepared by Sir John Burnet, Tait and Lorne.

The information contained in your first sheet is very concise and likely to prove most useful, besides saving no end of time in looking up catalogues and back drawings.

There is so much repetition work in one's various jobs, that any means that can be adopted for reducing the work will, I am sure, be greatly appreciated.

STANLEY TOWSE

SIR,—I consider your new feature in THE JOURNAL of exceptional value, and those instrumental in having these information sheets are to be thanked.

CLIFFORD BOND

Ancient Lights

SIR,—Your correspondent Mr. E. A. L. Martyn, in your issue for December 21, is quite correct in refuting the suggestion that there are any restrictions against the use of the calculating diagram devised by my son and myself.

Your correspondent T.U.J. has possibly been misled by an action which I brought in 1929 to restrain someone else from claiming our diagram as *his own* copyright.

To the new edition, recently published by H.M. Stationery Office, of Technical Paper No. 7, Illumination Research, Department of Scientific and Industrial Research, on *The Penetration of Daylight and Sunlight into Buildings* (1s. 6d.), there has now been added a short description of the geometrical basis of the rectangular diagram and of the method of setting it out.

I was also desired to write a new appendix describing the device known as the "Droop Diagram," which eliminates a great deal of the labour of applying any measuring diagram to the problems met with in practice. This labour can occasionally be tedious, especially if it be not intelligently organized; but it is quite simple in the case of single windows. It can be and has been carried out by intelligent schoolboys.

If, however, either of your correspondents can evolve anything simpler we should be only too glad to use it.

There are, of course, many instruments capable of measuring daylight factors under conditions which exist; but their use is restricted to what they can see. The effect of conditions of obstruction which exist only on paper must be worked out.

Papers are being completed dealing with drawing office routine work in the preparation of the usual contour plans indicating the penetration of daylight and sunlight into buildings, and covering, it is hoped, such difficulties as may arise in practice in connection with interiors lit by several windows.

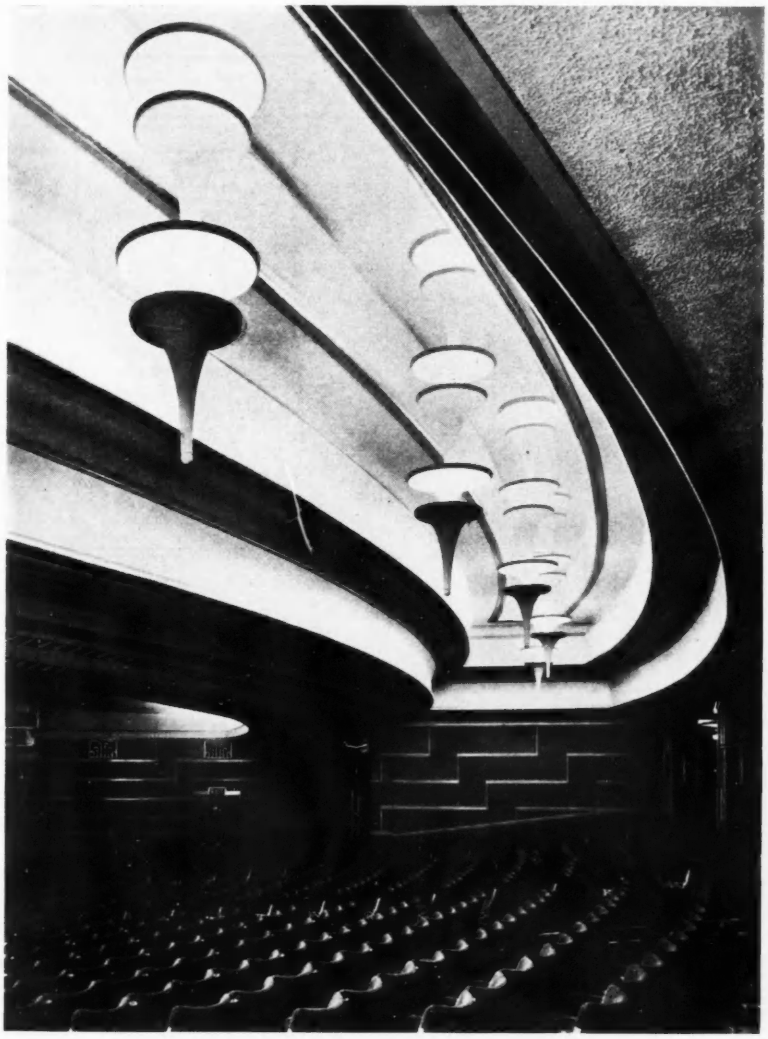
Pending their publication I should be glad to give to any of your readers who may have experienced such difficulties any assistance which may lie in my power.

PERCY J. WALDRAM

GAUMONT, LEWISHAM

DRAWINGS OF
LIGHT FITTINGS

W. E. TRENT, ARCHITECT
JAMES MORRISON, ASSISTANT

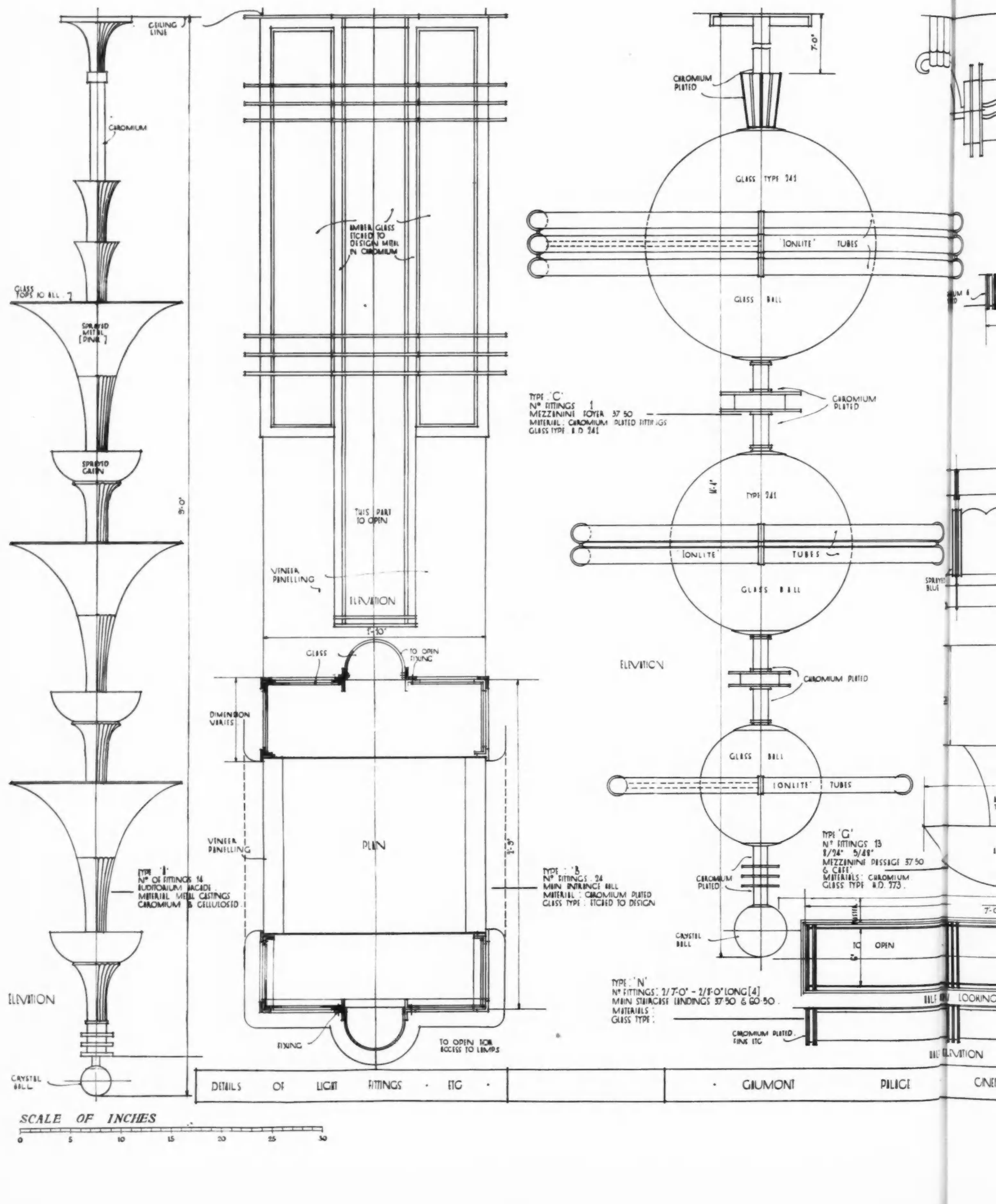


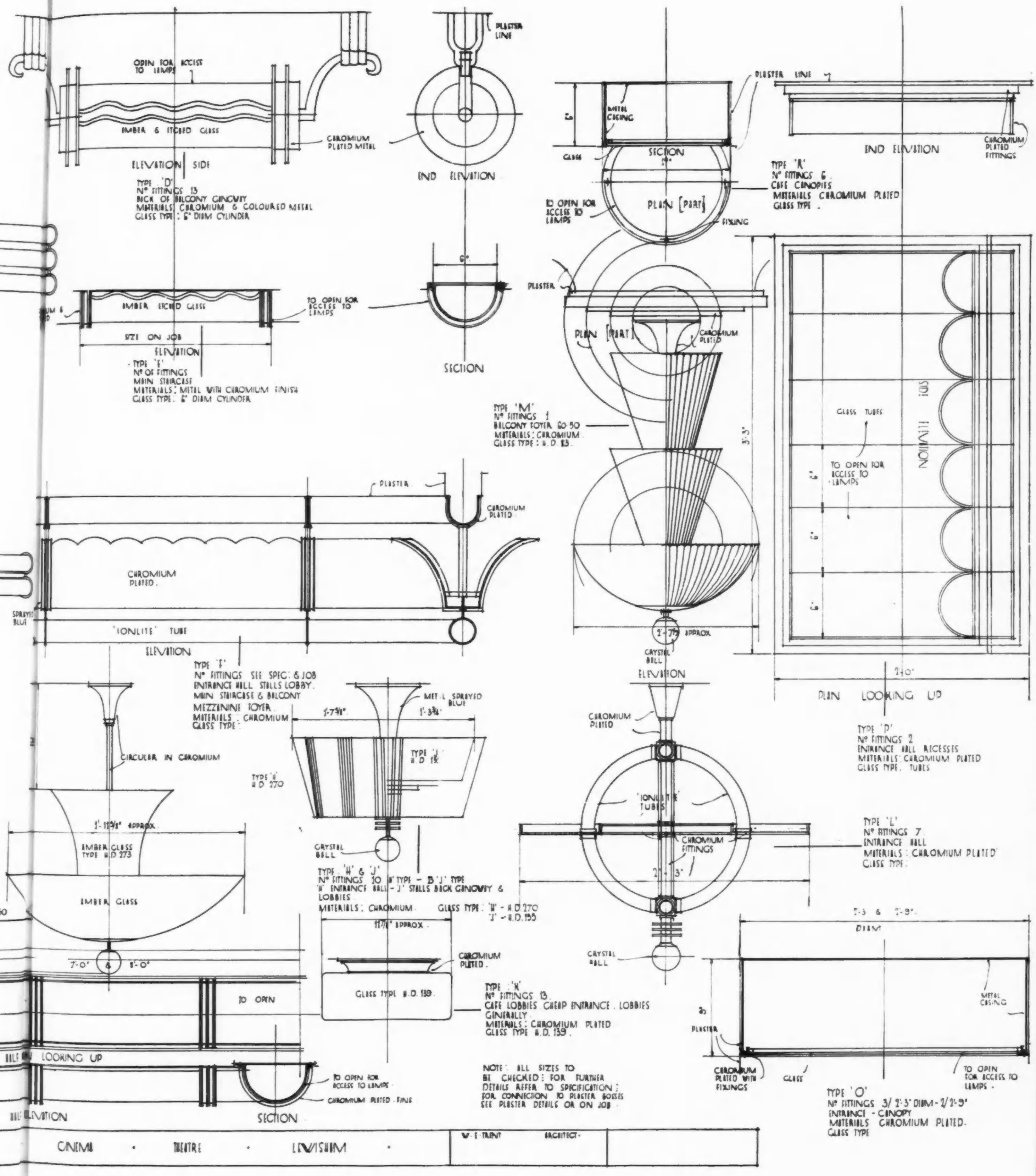
PENDANTS BENEATH THE BALCONY

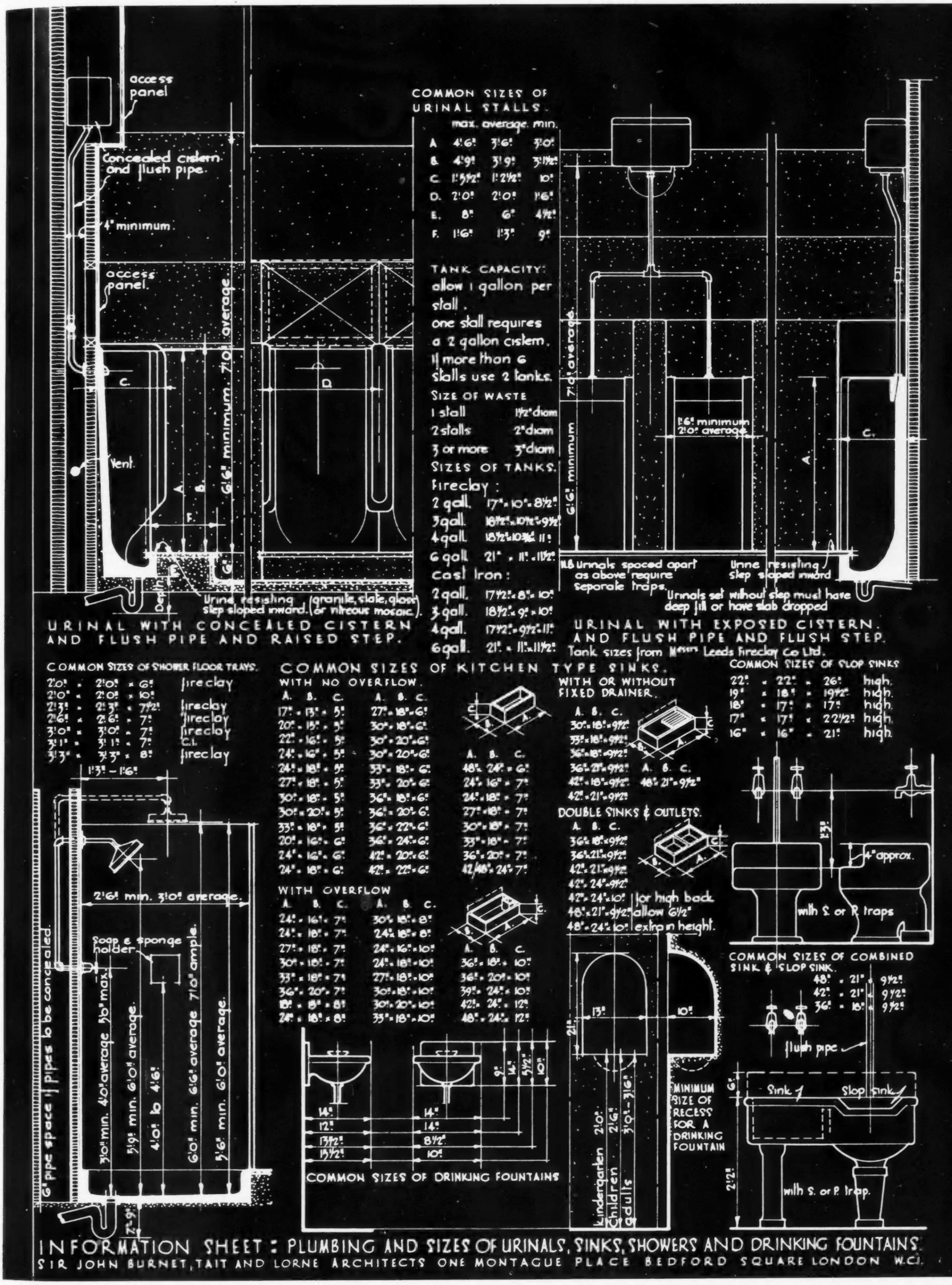
ON the double page overleaf are reproduced the large-scale drawings for a number of light fittings that occur in various parts of the house. As will be clear from the above illustration, and those given on pages 106–9, concealed lighting is made to exercise a definitely architectural function in emphasizing some of the broader constructional outlines of the auditorium. The visible light fittings supply focal points of interest in this general illumination scheme.

Indications of the materials appear on the drawings. Most of the metal parts are chromium-plated, and some are sprayed with bright colours, while a variety of glass is employed in combination with lighting elements of several shapes and kinds.

Supplement to THE ARCHITECTS' JOURNAL for January 18, 1933


CEILING LINE
CHROMIUM
GLASS TOPS TO ALL
SPRAYED METAL [PINK]
SPRAYED GREEN
9'-0"
TYPE 'I'
Nº OF FITTINGS 14
AUDITORIUM FACADE.
MATERIAL METAL CASTINGS
CHROMIUM & CELLULOSED.
ELEVATION
CRYSTAL BALL
AMBER GLASS ETCHED TO DESIGN METAL IN CHROMIUM
THIS PART TO OPEN
VENEER PANELLING
ELEVATION
1'-10"
GLASS
TO OPEN FIXING
DIMENSION VARIES
VENEER PANELLING
PLAN
2'-3"
FIXING
TO OPEN FOR ACCESS TO LAMPS
TYPE : 'B'
Nº FITTINGS : 24
MAIN ENTRANCE HALL
MATERIAL : CHROMIUM PLATED
GLASS TYPE : ETCHED TO DESIGN
7'-0"
CHROMIUM PLATED
GLASS TYPE 241
'IONLITE' TUBES
GLASS BALL
TYPE 'C'
Nº FITTINGS 1
MEZZANINE FOYER 37 50
MATERIAL : CHROMIUM PLATED FITTINGS
GLASS TYPE A.D. 241
CHROMIUM PLATED
11'-4"
TYPE 241
'IONLITE' TUBES
GLASS BALL
ELEVATION
CHROMIUM PLATED
GLASS BALL
'IONLITE' TUBES
CHROMIUM PLATED
CRYSTAL BALL
TYPE 'G'
Nº FITTINGS 13
8/24" 5/48"
MEZZANINE PASSAGE 37 50
& CAFE.
MATERIALS : CHROMIUM
GLASS TYPE A.D. 273.
TYPE : 'N'
Nº FITTINGS : 2/7'-0" – 2/8'-0" LONG [4]
MAIN STAIRCASE LANDINGS 37·50 & 60·50.
MATERIALS :
GLASS TYPE :
CHROMIUM PLATED. FINS ETC
TO OPEN
6"
7'-0
HALF ... LOOKING
HALF ELEVATION
SPRAYED BLUE
DETAILS OF LIGHT FITTINGS · ETC ·
· GAUMONT PALACE
CINE
SCALE OF INCHES
0
5
10
15
20
25
30


PLASTER LINE
OPEN FOR ACCESS TO LAMPS
AMBER & ETCHED GLASS
CHROMIUM PLATED METAL
ELEVATION SIDE
END ELEVATION
TYPE 'D'
Nº FITTINGS 13
BACK OF BALCONY GANGWAY
MATERIALS: CHROMIUM & COLOURED METAL
GLASS TYPE: 6" DIAM CYLINDER
6"
AMBER ETCHED GLASS
TO OPEN FOR ACCESS TO LAMPS
SIZE ON JOB
ELEVATION
SECTION
TYPE 'E'
Nº OF FITTINGS
MAIN STAIRCASE
MATERIALS: METAL WITH CHROMIUM FINISH
GLASS TYPE: 6" DIAM CYLINDER
METAL CASING
GLASS
SECTION
PLAN [PART]
TO OPEN FOR ACCESS TO LAMPS
FIXING
PLASTER LINE
END ELEVATION
CHROMIUM PLATED FITTINGS
TYPE 'R'
Nº FITTINGS 6.
CAFE CANOPIES
MATERIALS CHROMIUM PLATED
GLASS TYPE .
PLASTER
PLAN [PART]
CHROMIUM PLATED
TYPE 'M'
Nº FITTINGS 1
BALCONY FOYER 60-50
MATERIALS: CHROMIUM.
GLASS TYPE: H. D. 13.
3'-3"
2'-7½" APPROX
CRYSTAL BALL
ELEVATION
GLASS TUBES
TO OPEN FOR ACCESS TO LAMPS
ELEVATION SIDE
6"
6"
6"
2'-0"
PLAN LOOKING UP
TYPE 'P'
Nº FITTINGS 2
ENTRANCE HALL RECESSES
MATERIALS: CHROMIUM PLATED
GLASS TYPE. TUBES
PLASTER
CHROMIUM PLATED
CHROMIUM PLATED.
SPRAYED BLUE
'IONLITE' TUBE
ELEVATION
TYPE 'F'
Nº FITTINGS SEE SPEC: & JOB
ENTRANCE HALL STALLS LOBBY.
MAIN STAIRCASE & BALCONY
MEZZANINE FOYER.
MATERIALS: CHROMIUM
GLASS TYPE:
CIRCULAR IN CHROMIUM
METAL SPRAYED BLUE
1'-7⅝"
1'-3¾"
TYPE 'J'
H. D. 15.
TYPE 'H'
H. D. 270
1'-11⅝" APPROX.
AMBER GLASS
TYPE H. D. 273
AMBER GLASS
7'-0" & 8'-0"
CRYSTAL BALL
TYPE: 'H' & 'J'
Nº FITTINGS 10 'H' TYPE - 13 'J' TYPE
'H' ENTRANCE HALL - 'J' STALLS BACK GANGWAY & LOBBIES
MATERIALS: CHROMIUM.
GLASS TYPE: 'H' - H.D. 270
'J' - H.D. 155
11⅞" APPROX.
CHROMIUM PLATED.
GLASS TYPE H. D. 139.
TYPE: 'K'
Nº FITTINGS 13.
CAFE LOBBIES CHEAP ENTRANCE. LOBBIES GENERALLY.
MATERIALS: CHROMIUM PLATED
GLASS TYPE H. D. 139.
CHROMIUM PLATED
'IONLITE' TUBES
CHROMIUM FITTINGS
2'-3"
CRYSTAL BALL
TYPE 'L'
Nº FITTINGS 7.
ENTRANCE HALL
MATERIALS: CHROMIUM PLATED
GLASS TYPE:
TO OPEN
HALF PLAN LOOKING UP
HALF ELEVATION
TO OPEN FOR ACCESS TO LAMPS.
CHROMIUM PLATED. FINS
SECTION
NOTE: ALL SIZES TO BE CHECKED: FOR FURTHER DETAILS REFER TO SPECIFICATION: FOR CONNECTION TO PLASTER BOSSES SEE PLASTER DETAILS OR ON JOB.
2'-3 & 2'-9"
DIAM
8"
PLASTER
METAL CASING
CHROMIUM PLATED WITH FIXINGS
GLASS
TO OPEN FOR ACCESS TO LAMPS.
TYPE 'O'
Nº FITTINGS 3/ 2'-3" DIAM - 2/ 2'-9"
ENTRANCE - CANOPY
MATERIALS CHROMIUM PLATED.
GLASS TYPE
CINEMA · THEATRE · LEWISHAM ·
W. E. TRENT ARCHITECT.


access panel
Concealed cistern and flush pipe.
4" minimum.
access panel.
C.
D
Vent.
A.
B.
F.
E
6'6" minimum. 7'0" average.
Depth
Urine resisting step sloped inward. (granite, slate, glass or vitreous mosaic).
7'0" average
6'6" minimum
1'6" minimum 2'0" average
C.
A
N.B. Urinals spaced apart as above require separate traps.
Urine resisting step sloped inward
Urinals set without step must have deep fill or have slab dropped
1'3" – 1'6"
2'6" min. 3'0" average.
Soap & sponge holder.
6" pipe space if pipes to be concealed.
3'0" min. 4'0" average 5'0" max.
5'9" min. 6'0" average.
4'0" to 4'6"
6'0" min. 6'6" average 7'0" ample.
5'6" min. 6'0" average.
2'9"
4" approx.
1'3"
with S. or P. traps
14"
12"
13½"
13½"
14"
14"
8½"
10"
9"
14"
5½"
10"
13"
10"
21"
Kindergarten 2'0"
Children 2'6"
adults 3'0"–3'6"
MINIMUM SIZE OF RECESS FOR A DRINKING FOUNTAIN
flush pipe
6"
Sink
Slop sink
2'2"
with S. or P. trap.

URINAL WITH CONCEALED CISTERN AND FLUSH PIPE AND RAISED STEP.

COMMON SIZES OF URINAL STALLS.

	max.	average.	min.
A	4'6"	3'6"	3'0"
B.	4'9"	3'9"	3'1½"
C	1'5½"	1'2½"	10"
D.	2'0"	2'0"	1'6"
E.	8"	6"	4½"
F.	1'6"	1'3"	9"

TANK CAPACITY: allow 1 gallon per stall. one stall requires a 2 gallon cistern. If more than 6 stalls use 2 tanks.

SIZE OF WASTE

1 stall	1½" diam
2 stalls	2" diam
3 or more	3" diam

SIZES OF TANKS.

Fireclay:

2 gall.	17" × 10" × 8½"
3 gall.	18½" × 10½" × 9½"
4 gall.	18½" × 10¾" × 11"
6 gall.	21" × 11" × 11½"

Cast Iron:

2 gall.	17½" × 8" × 10"
3 gall.	18½" × 9" × 10"
4 gall.	17½" × 9½" × 11"
6 gall.	21" × 11" × 11½"

URINAL WITH EXPOSED CISTERN. AND FLUSH PIPE AND FLUSH STEP.

Tank sizes from Messrs Leeds Fireclay Co Ltd.

COMMON SIZES OF SHOWER FLOOR TRAYS.

2'0" ×	2'0" ×	6"	fireclay
2'0" ×	2'0" ×	10"	
2'3" ×	2'3" ×	7½"	fireclay
2'6" ×	2'6" ×	7"	fireclay
3'0" ×	3'0" ×	7"	fireclay
3'1" ×	3'1" ×	7"	C.I.
3'3" ×	3'3" ×	8"	fireclay

COMMON SIZES OF KITCHEN TYPE SINKS.

WITH NO OVERFLOW.

A.	B.	C.
17"	13"	5"
20"	15"	5"
22"	16"	5"
24"	16"	5"
24"	18"	5"
27"	18"	5"
30"	18"	5"
30"	20"	5"
33"	18"	5"
20"	16"	6"
24"	16"	6"
24"	18"	6"

A.	B.	C.
27"	18"	6"
30"	18"	6"
30"	20"	6"
30"	20"	6"
33"	18"	6"
33"	20"	6"
36"	18"	6"
36"	20"	6"
36"	22"	6"
36"	24"	6"
42"	20"	6"
42"	22"	6"

A.	B.	C.
48"	24"	6"
24"	16"	7"
24"	18"	7"
27"	18"	7"
30"	18"	7"
33"	18"	7"
36"	20"	7"
42/48"	24"	7"

WITH OVERFLOW

A.	B.	C.
24"	16"	7"
24"	18"	7"
27"	18"	7"
30"	18"	7"
33"	18"	7"
36"	20"	7"
18"	18"	8"
24"	18"	8"

A.	B.	C.
30"	18"	8"
24"	18"	8"
24"	16"	10"
24"	18"	10"
27"	18"	10"
30"	18"	10"
30"	20"	10"
33"	18"	10"

A.	B.	C.
36"	18"	10"
36"	20"	10"
39"	24"	10"
42"	24"	12"
48"	24"	12"

WITH OR WITHOUT FIXED DRAINER.

A.	B.	C.
30"	18"	9½"
33"	18"	9½"
36"	18"	9½"
36"	21"	9½"
42"	18"	9½"
42"	21"	9½"

A.	B.	C.
48"	21"	9½"

DOUBLE SINKS & OUTLETS.

A.	B.	C.	
36"	18"	9½"	
36"	21"	9½"	
42"	21"	9½"	
42"	24"	9½"	
42"	24"	10"	for high back
48"	21"	9½"	allow 6½"
48"	24"	10"	extra in height.

COMMON SIZES OF SLOP SINKS

22" ×	22" ×	26"	high.
19" ×	18" ×	19½"	high.
18" ×	17" ×	17"	high.
17" ×	17" ×	22½"	high.
16" ×	16" ×	21"	high.

COMMON SIZES OF COMBINED SINK & SLOP SINK.

48" ×	21" ×	9½"
42" ×	21" ×	9½"
36" ×	18" ×	9½"

COMMON SIZES OF DRINKING FOUNTAINS

INFORMATION SHEET: PLUMBING AND SIZES OF URINALS, SINKS, SHOWERS AND DRINKING FOUNTAINS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS •1• PLUMBING FIXTURES

Supplement to THE ARCHITECTS' JOURNAL for January 18, 1933

INFORMATION SHEETS

• 1 •

PLUMBING FIXTURES

•

THE architect learns something new from each job he undertakes, and Information Sheets form an efficient means of tabulating the heterogeneous knowledge which he amasses, for his own use in the future, and for the help of every member of the office staff. They supply, in an accessible form, those useful facts which, having been learnt once, are apt to slip from the memory and lie hidden away on old drawings where, perhaps, they can only be found after a lengthy search. Time is too precious to be wasted in this way, so all information that can be standardized is collected and set out on sheets of uniform size, forming an encyclopaedia of knowledge useful to everyone in the firm.

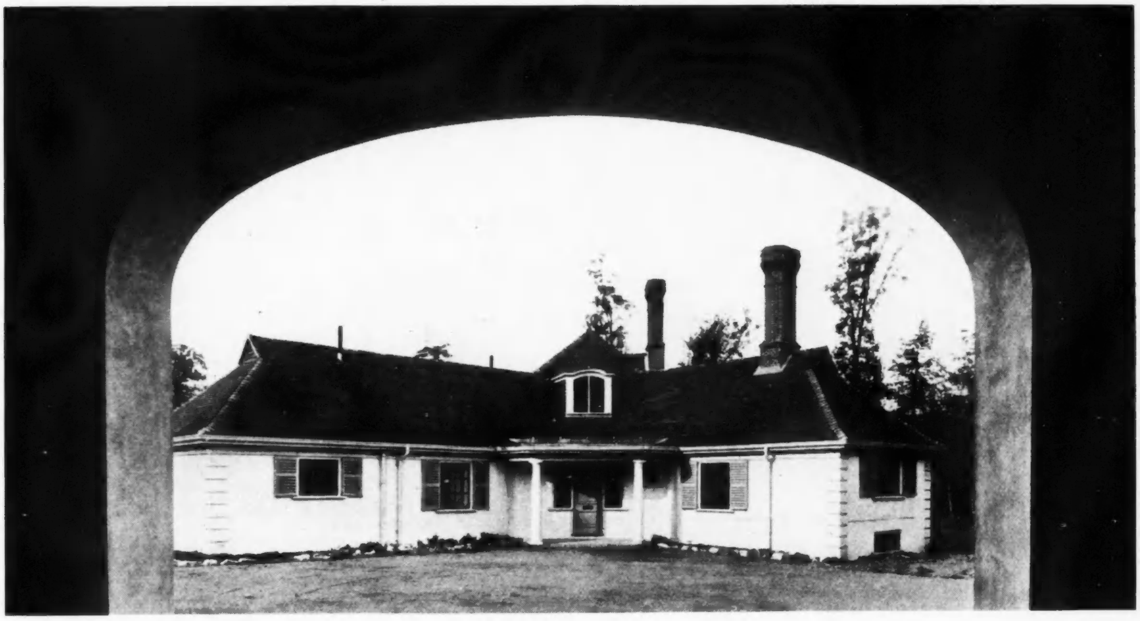
Information Sheets have been in use in architects' offices in America and Germany for some time, but they are not found in this country, where most of us have a secret and somewhat patronizing disdain of efficiency. For many years, however, Sir John Burnet, Tait and Lorne have made a remarkable record of all the information that a practice full of variety has brought to their office, and the comprehensive and detailed Information Sheets which they have compiled are grouped and classified to make the finding of any specific fact as easy as possible.

There are sheets of standard plumbing details—such as this one—sheets of lighting fittings, and door and window details. There are sheets giving the sizes of sports fields and courts, vehicles and their turning diameters, and the type of seating accommodation required for every kind of hall. Some of the sheets supply particulars for the use of the draughtsmen, such as the standard lay-out for the firm's drawings, the type of lettering used, and the symbols to indicate materials, etc. There are sheets, too, with details for the setting out of letters, agenda, minutes and filing, and the accounting system of the firm. No information which will help to simplify the working of the office has been omitted, nor any fact which will save unnecessary work.

The present Information Sheet—the first of a series—shows standard types of urinals, sinks, showers and drinking fountains. It gives tables of their common sizes, and adds various useful tips of which accumulated office experience has proved the value.

It was intended at first to reproduce these drawings in the form of double-page plates. The size finally chosen, however, was exactly that of the original drawing, which follows the dimensions adopted by the American Institute of Architects as the standard filing size for catalogues and leaflets; practically all the architectural publications of American manufacturers conform to it. As we lack a standard in England, we have chosen the best substitute—the American standard. Until further notice, therefore, this sheet will take the place of the second double-page plate which usually appears in the JOURNAL.

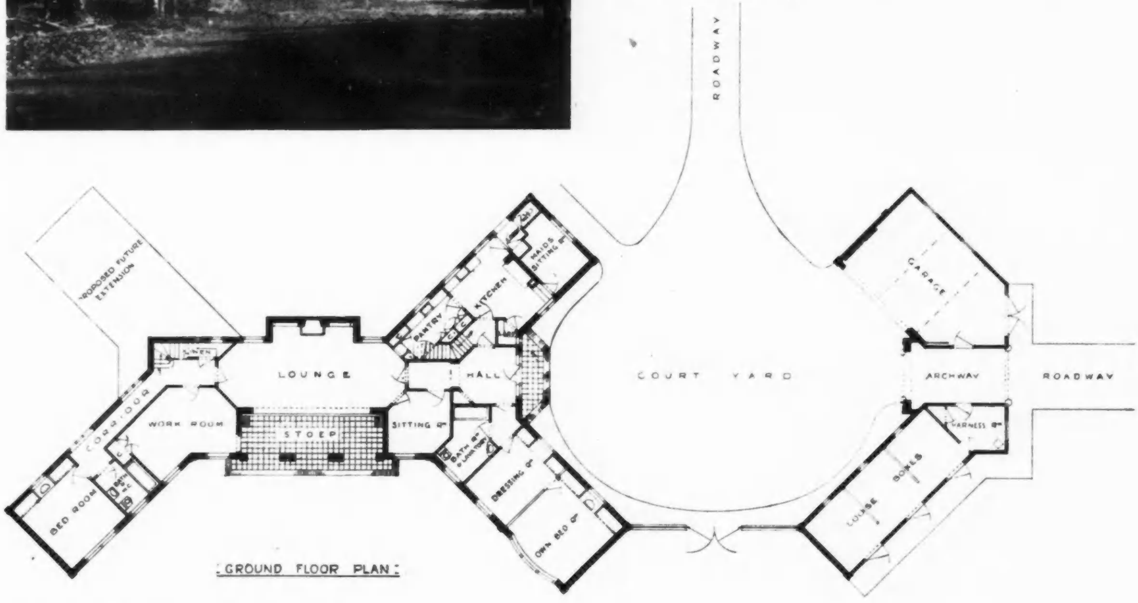
A WOODLAND BUNGALOW: BY ERNEST R. BARROW



This house is built on high ground in a woodland clearing near Upper Basildon, Berks. The client desired a bungalow type of home, the various parts of which could be opened up or shut off at will. Four good-sized bedrooms—two for servants—and a bathroom have been provided in the roof. All have fitted cupboards and lavatory basins.

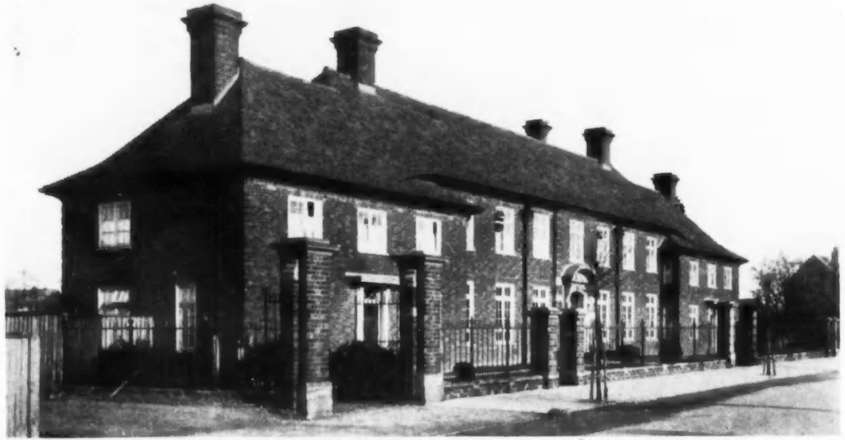
The whole front of the lounge is filled in with glazed folding doors, arranged to fold back into a recess to form, with the stoep, a large open-air room. On the east side are a garage and stables, the outline plan of which follows that of the house, thus forming a symmetrical courtyard, approached either by a drive through the wood or through the stable archway.

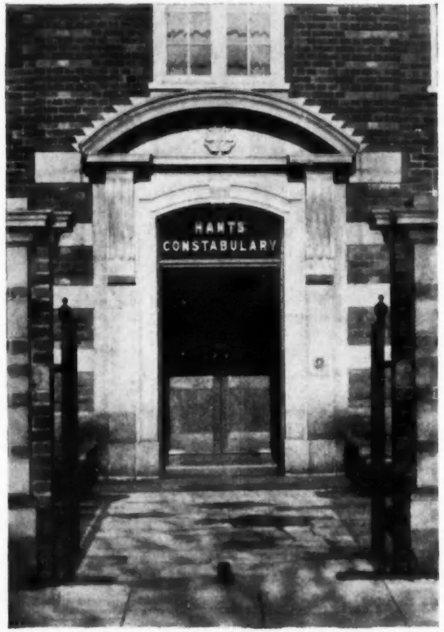
The walls of house and garage are faced with rough cement of a warm cream colour, with columns and quoins of a darker tone. The roof is covered with reddish-brown hand-made tiles and the chimney stacks are of 2-inch red, hand-made bricks.


ROADWAY
PROPOSED FUTURE EXTENSION
MAIDS SITTING Rm
KITCHEN
PANTRY
LINEN
LOUNGE
HALL
COURT YARD
GARAGE
ARCHWAY
ROADWAY
CORRIDOR
WORK ROOM
STOEP
SITTING Rm
BATH Rm
DRESSING Rm
HARNESS Rm
BED ROOM
OWN BED Rm
LOOSE BOXES
10 5 0 10 20 30 40 50
SCALE OF FEET

: GROUND FLOOR PLAN :

EASTLEIGH POLICE STATION, HAMPSHIRE : BY A. L. ROBERTS

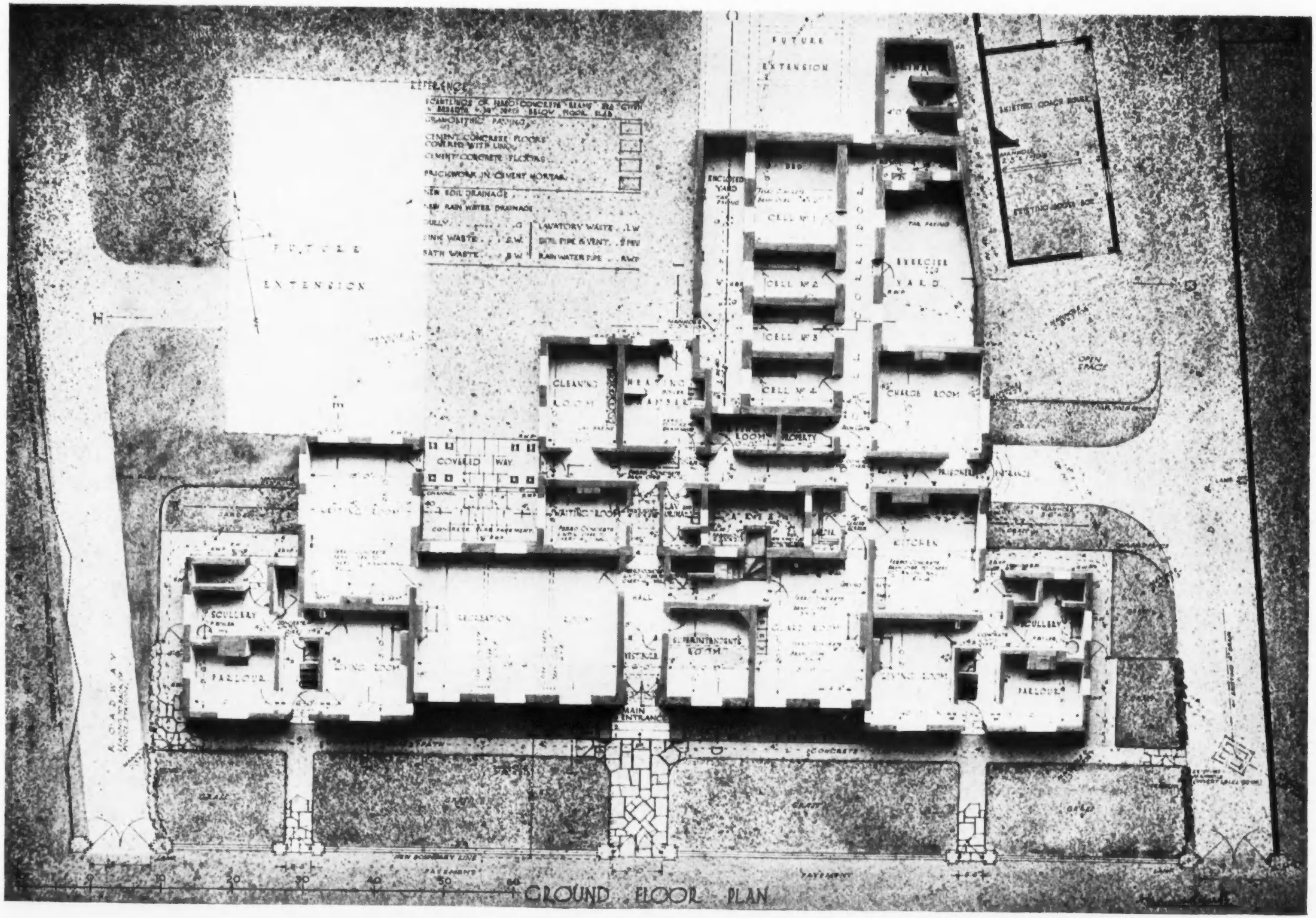




The new police station has accommodation for one sergeant, three married and ten single constables. Space has been left for the erection of a future Petty Sessional Court. The constable's wife in the south-east cottage cooks for the single men, and it will be noted from the plan, which is a photograph of a scale model, with walls shown four feet high, that their kitchen, wash-up and larder adjoin this cottage.

The working part of the station has been well screened from the main entrance. A recreation room has been provided, in which billiard tables have been supplied by the men; also a writing room, in which constables can write their reports and on occasions be addressed by the Chief Constable or members of his staff.

The walls are faced with Hampshire bricks, and the roof covered with hand-made, sand-faced tiles. The windows to the cells are of manganese steel. Cells, charge room and writing room are heated by hot water. The building was erected from the designs of the Hampshire county architect. The contract price was £9,998.


REFERENCE
SCANTLINGS OF REINFORCED CONCRETE BEAMS ARE GIVEN
GRANOLITHIC PAVING
CEMENT CONCRETE FLOORS COVERED WITH LINO
CEMENT CONCRETE FLOORS
BRICKWORK IN CEMENT MORTAR
NEW SOIL DRAINAGE
NEW RAIN WATER DRAINAGE
GULLY . . . G
SINK WASTE . . S.W.
BATH WASTE . . B.W.
LAVATORY WASTE . . L.W.
SOIL PIPE & VENT . . S.P.V.
RAIN WATER PIPE . . R.W.P.
FUTURE EXTENSION
FUTURE EXTENSION
ENCLOSED YARD
CELL No 1
CELL No 2
CELL No 3
CELL No 4
EXERCISE YARD
EXISTING COACH HOUSE
EXISTING HOUSE BOX
OPEN SPACE
CHARGE ROOM
PRISONERS' ENTRANCE
PROPERTY
CLEANING ROOM
HEATING CHAMBER
COVERED WAY
WAITING ROOM
KITCHEN
HALL
CLERKS' ROOM
SUPERINTENDENT'S ROOM
VESTIBULE
MAIN ENTRANCE
RECREATION ROOM
LIVING ROOM
SCULLERY
PARLOUR
LIVING ROOM
SCULLERY
PARLOUR
CONCRETE
GRASS
PAVEMENT
ROADWAY
0 10 20 30 40 50 60
GROUND FLOOR PLAN

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for general application to all similar problems. [Crown Copyright Reserved].

Corrosion of Lead Gutters

¶ *INFORMATION was sought on the corrosion of lead gutters of a bacon drying stove. The bacon was stored in racks in a building some 30 feet high; during the process of drying sawdust was allowed to smoulder on the concrete floor, and the smoke escaped through a louvred top-light in the slate roof. The lead gutters running along each side of the roof were badly corroded at intervals.*

At the outset it should be mentioned that it is a little difficult to hazard a definite opinion on the trouble without first-hand knowledge of the conditions under which corrosion is taking place, or even without an examination of the corrosion product formed on the lead, especially since it is noted that no trouble has arisen in other stoves constructed in a similar manner to the one in which failure occurred. It seems quite likely, however, that the cause of failure may be attributed to the vapour given off by the smouldering sawdust. A small laboratory experiment showed that the vapour expelled from heated sawdust contains an appreciable amount of acetic acid, which would certainly lead to the corrosion of lead.

The manner in which such acidic vapour could reach the lead gutters in this instance can only be conjectural, but it is quite possible that condensation of the vapour on the slate may have been an important factor. It would then be quite easy for the acid deposit to be washed into the gutters by rain and thus set up corrosion.

With regard to remedial methods it will be appreciated that any form of metal gutter would be likely to corrode under these conditions, and some protective coating would be required. Asphalt appears to be the only covering material which is likely to be unaffected. A bituminous paint may be effective for a time, but it is unlikely that it would afford a permanent cure unless carefully maintained.

Corrosion of Steel by Breeze Concrete

¶ *AN architect inquired about the corrosion of an iron service pipe which passed through a breeze concrete partition.*

Deterioration of steel or iron in contact with breeze and clinker concretes is well known. A number of such cases are reported from time to time, and judging from a superficial examination of the piece of piping submitted the failure in the present instance is of the usual type.

It is now realized that a number of causes, in most cases arising out of the properties of the breeze concrete itself, may contribute to the rusting of steel when the two materials are used in contact with each other. Of these the porous structure of the material, and the probability of the presence of compounds of sulphur may be said to be the most likely factors which would lead to corrosion. The subject is fully dealt with in Building Research Special Report No. 15, *The Corrosion of Steel by Breeze and Clinker Concretes* (H.M. Stationery Office, price 6d. net). As is explained in this report, the porous structure of these concretes allows ready access of moisture and oxygen and so permits rapid rusting, although the effects produced by moisture permeability alone should not be considered the *primary* cause of corrosion; if, however, sulphur compounds are present, as is usually the case with a clinker aggregate, the combined effects of all three factors, i.e., free access of moisture and oxygen, and the presence of sulphur, will then undoubtedly cause rapid corrosion. It is also probable that, as the result of their absorptive powers, breeze or clinker aggregates may promote corrosion of steel even under "dry" indoor conditions.

Under ordinary conditions of manufacture it is virtually impossible to obtain a breeze or clinker aggregate which could be safely assumed to be free from sulphur compounds; it is important, therefore, that steel or iron should not be used in direct contact with this material, and if, in the laying of service pipes, it is found impossible to avoid penetrating a breeze or clinker concrete partition, suitable precautions should be taken to protect and insulate the piping where it passes through the partition.

Plaster Failure

¶ *SERIOUS cracking of plaster on lathing of ceilings and stud partitions was reported. The architect had specified that the mix was to be one part of chalk lime putty to three parts of sand, with the usual amount of hair, and immediately before applying the plaster about 10 per cent. of Portland cement was to be added.*

The failure is apparently of the usual type, the cracking being due to drying shrinkage.

Failures of this kind are to some extent inherent in the materials used, and perhaps it would be helpful to summarize the present position as regards plaster finishes generally. At the outset it must be admitted that this is far from satisfactory, but some of the more serious difficulties will be removed when British Standard Specifications are available for plastering materials; a very great deal of work has already been done in this direction and publication of the specifications should not be long deferred unless unforeseen complications arise.

Ungauged lime plasters on lathing are probably the most prolific cause of failures of any building materials. Modern craftsmanship, and particularly modern building conditions, render the traditional materials inadequate. Haste for completion makes it impossible to allow sufficient time for undercoats to dry and shrink, and to carbonate, before finishing coats are applied. There is also a much greater risk of disturbing fresh plasters. Numerous specialist tradesmen, such as electricians, pipe fitters, etc., may be expected to be working in the building while the plaster is still green, and the shrinkage and warping of insufficiently seasoned timber will contribute to the general disturbance.

It follows, therefore, that a lime plaster must of necessity be gauged with a proportion of some cementing material having a definite hydraulic set: Portland cement is very commonly used. The alternative would be a calcium sulphate gauging plaster of a suitable slow-setting type. These plasters are ideal for the purpose since they do not shrink appreciably on drying; unfortunately there are as yet no standard specifications, and the characteristics of the various types of plaster are often not fully appreciated by the operatives, so that failures due to misuse are by no means infrequent.

A gauging of Portland cement, such as has been specified in the case under reference, should eliminate the worst type of failure where ceilings on lathing collapse entirely due to inadequate key strength; it will not, however, overcome the difficulty of shrinkage crack formation. Portland cement is a material which shrinks on drying, and this, of course, is the cause of the almost universal cracking which cement renderings exhibit. On solid backgrounds the shrinkage of a Portland cement gauged plaster may be restrained by the unshrinking backing, but lathing does not provide the necessary restraint, and the tendency to crack formation then depends entirely upon the drying conditions during and immediately following the plastering operation. If the undercoats can be allowed ample time to dry and complete their shrinkage before the finishing coats are proceeded with, it is quite possible to obtain a good job, but under ordinary building conditions this is an ideal state of affairs which can hardly be hoped for. It more often happens that thorough drying out only takes place at a much later stage in the history of the building, when it is being prepared for occupation. If, as is sometimes the case, the drying process is accelerated in cold weather by forcing the heating installation, the likelihood of extensive cracking is very much accentuated.

Accelerated Drying of a Building

¶ *A CONTRACTOR estimated that the moisture content of a building, which had been considerably delayed in erection, was between 18 and 21 per cent., and he considered that conditions were far too damp to commence joinery work. Plastering and the laying of terrazzo floors had been started, however, and since the* *architects were anxious to heat the building as soon as possible, the contractor wished to know whether reduction of the moisture content to within 12 and 14 per cent. by artificial heating would result in drying shrinkage and cracking of terrazzo and plaster finishes. He also wished to know what would be the limit beyond which it would be unwise to dry out the building.*

It would be agreed that accelerated drying is likely to have objectionable results, although it is not possible to lay down any arbitrary rate of moisture loss which would be safe.

The effects are likely to be more serious, if anything, with finishes other than ordinary plasters; the tendency to shrinkage crack formation in terrazzo finishes and cement rendered backings would be augmented, and rapid drying of structural concrete work would also tend to produce cracks which would not form when drying was permitted to take place gradually. The tendency of tiled floors to "arch" from their bed would also be accentuated, and a case has recently been investigated where an extensive failure could be attributed almost entirely to accelerated drying with artificial heat.

It seems, within practical limits, that the rate of drying is more important than the ultimate stage to which the building is dried out in a case of this sort.

Failure of Floor Finish

¶ *THE contractors for a large city building requested the Building Research Station to inspect and report upon certain magnesium oxychloride jointless floors, in which abnormal cracking and loosening of the material had occurred. The jointless floor was laid on a pumice concrete screeding, and, in certain cases, the major shrinkage cracks in the floor finish coincided with shrinkage cracks in the screeding beneath.*

Magnesium oxychloride flooring, particularly when it contains a large proportion of wood filler, is liable to undergo a very large shrinkage on drying, which is much greater in magnitude than that of any of the building materials with which it is usually employed. Unless this shrinkage can be restrained, a thin floor finish of this kind must inevitably crack; in practice the necessary restraint is usually provided by adhesion to a relatively non-shrinking base.

Pumice concrete is a material which itself is generally liable to greater shrinkage than normal gravel concrete. A certain amount of cracking must undoubtedly be attributed to shrinkage of the pumice concrete screeding underneath the flooring, but this is not sufficient completely to account for the exceedingly bad condition of these floors.

The worst cases arise when the adhesion of the magnesium oxychloride finish to the base concrete fails; this has actually occurred over large areas in the floors inspected. When this happens, the excessive shrinkage of the floor finish is quite unrestrained, and it must be expected to crack up generally.

No examination could be made of the pumice concrete, but the condition of the floors suggests that it may not have been a simple matter to obtain a good bond between the magnesium oxychloride finish and the pumice concrete. It is generally recognized that an essential process in applying a plastic material, such as plaster or mortar, to any kind of surface is to adjust the "suction" of the background, so that water is not removed from the plastic material at an excessive rate. Pumice concrete may be expected to behave differently from a normal, dense cement mortar in this respect, and it seems questionable whether it would have been possible under any circumstances to obtain satisfactory conditions for adhesion of the finish to the base.

An examination of a sample of the floor finish shows that the material contains a very large proportion of wood fibre, and this necessitates the use of a large quantity of magnesium chloride solution to make the mixture workable; this is likely to increase the ultimate shrinkage of the finish.

There are certain secondary effects which should be taken into account where magnesium oxychloride cement is used. This material has an aggressively corrosive effect on certain metals, particularly steel and iron. During the inspection it was observed that water service pipes leading to a radiator passed through a magnesium oxychloride dado, and that no insulation had been provided round the pipe. In consequence the pipe was corroded where it passed through the dado, and it was strongly recommended that this should receive attention, since, if no steps are taken to arrest corrosion, the pipe will be perforated. In fact, all metal pipes, conduits, etc., which pass through floors or dados should be inspected, and where no insulation exists this should be provided.

It is assumed that the main function of the pumice concrete is to provide cover for various services, such as electric cable conduits, pneumatic despatch tubes, etc. It is the practice of floor layers to flood the concrete base with magnesium chloride solution in order to control suction, and it is therefore quite possible that the magnesium chloride solution may have penetrated the pumice concrete where it may lead to corrosion of the various conduits and tubings, etc. The fact that the lower coat of the floor contains a high proportion of wood fibre is a likely cause for the use of an excess of magnesium chloride. Therefore, before taking steps to relay these floors, it is most desirable to ascertain whether there is a high content of magnesium chloride in the pumice concrete, and whether there are any signs of corrosion of the conduits and tubings, etc., embedded in it.

In view of the failure which has already occurred, it may be felt undesirable to relay the floors in magnesium oxychloride, especially as this will necessitate the introduction of additional magnesium chloride. Any finish which involves the introduction of a considerable amount of water is to be deprecated, as the presence of moisture will promote corrosion where the magnesium chloride is already present in the concrete.

LITERATURE

PROGRESS OF TIMBER RESEARCH

The Report of the Forest Products Research Board for 1931. London: H.M. Stationery Office. Price 3s. 6d. net.

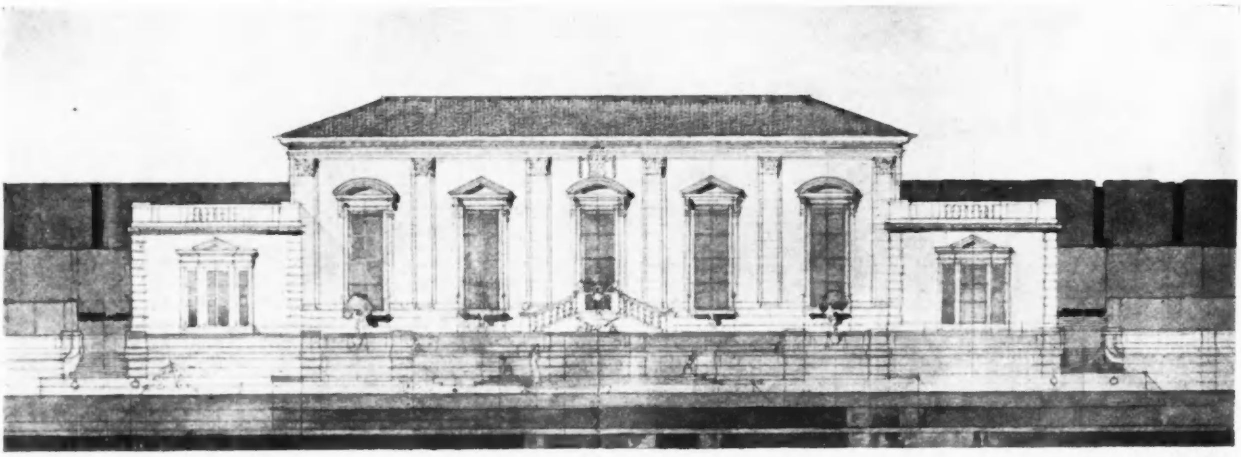
THE Report of the Forest Products Research Board for 1931, issued on Wednesday last by the Department of Scientific and Industrial Research, refers to the improved facilities available for large-scale investigations into dry rot and the death-watch beetle made possible by the completion of the new experimental building erected at the Forest Products Research Laboratory, Princes Risborough.

The ground floor of this building, the report states, contains a series of rooms in which solid floors are laid, with and without bituminous damp-proof courses, and in which the boards are fixed to the concrete in various ways. One room contains all the undesirable features which are found in badly-constructed houses—there is no ventilation under the floors and the soil beneath is not concreted over. There is no damp-proof course, and the outer wall is solid. In another room, on the other hand, the construction is good, and every precaution has been taken to ensure that there is adequate ventilation under the floor. The floors can be removed in sections for examination, and half-length panels, some of deal and some of oak, have been placed on the walls and have been treated with various paints and varnishes. "Every section of flooring and every panel was infected at the beginning of the summer with a piece of wood containing the dry rot fungus, *Merulius lacrymans*, in active growth, and the floors were covered with linoleum. The first inspection of the infected floors and panels was carried out four months after infection, and it was found that in the 'bad construction' room and on some of the solid floors the fungus had already made considerable growth, spreading several feet from the points of inoculation."

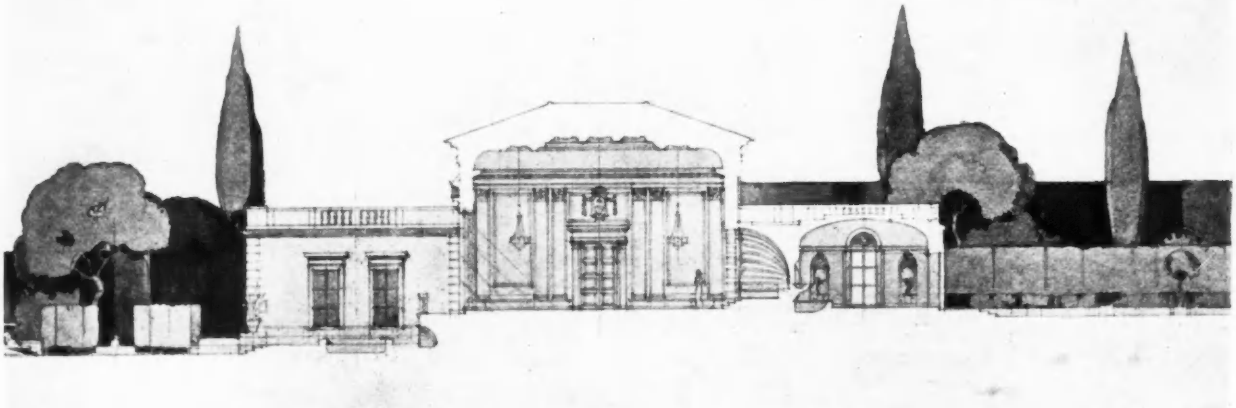
A record is being obtained of the variations in the moisture in the timber resulting from the various types of construction, and a further record is kept of the temperatures above and below the floors.

"As soon as decay has reached a certain stage, it is proposed to test out various methods which have been suggested for sterilizing *in situ* members such as joists, which are mechanically sound but carry traces of infection. The infected floors will also provide an excellent testing ground for determining

THE R.I.B.A. PRIZES AND STUDENTSHIPS •



ELEVATION TO LAKE



SECTION

the resistance to dry rot of various new Empire timbers which it is proposed to use for flooring. The resistance to dry rot of various makes of wall board is being investigated. The majority of the pulp boards so far tested have proved susceptible to fungal decay provided they are kept sufficiently moist."

Numerous enquiries have been received by the Laboratory during the year seeking information upon the death-watch beetle and methods of control. It is stated that the correspondence clearly shows "that the damage caused by this insect is frequently confused with the less important and less serious damage caused by the common furniture beetle or even by dry rot fungus." The investigations carried out have again dealt primarily with the biology of the insect, special attention being given to the relation between the life of the insect and the conditions which affect its existence and propagation.

ADVERTISING AND ARCHITECTURE

Lay-out and Commercial Art. By Charles C. Knights, in collaboration with Edward Swann. London: Butterworth & Co. (Publishers), Ltd. Price 21s. net.

A CASUAL glance at this book makes one wonder what possible use can a knowledge of advertising be to the architect. But a more methodical investigation makes one reflect how magnificent a thing good advertising can be to spur the public to a greater appreciation and understanding of architecture. One meets, almost every day, a man too blind mentally even to notice the most brilliantly flood-lit building, but whose attention will be immediately arrested and overawed by an advertisement on a railway, in the tube, or in his favourite magazine. Yet the principles of advertisement design bear the closest resemblance to those in architecture. As the authors state:

> Modern advertising art has no use for cluttering detail, irritating superfluities, or meaningless decoration. Its keynotes are simplicity of line and form, purity and rhythm; its favourite means of expression are the unusual viewpoint and the unconventional use of light and shade. Modern art exalts the beauty of everyday things, releases the hidden unsuspected charm of the commonplace . . . Modern art . . . despises what is false. Modern art believes, and practises the belief, that what is useful should also be beautiful, and that beauty must be made inherent in the object and not be a matter of mere decoration. . . .

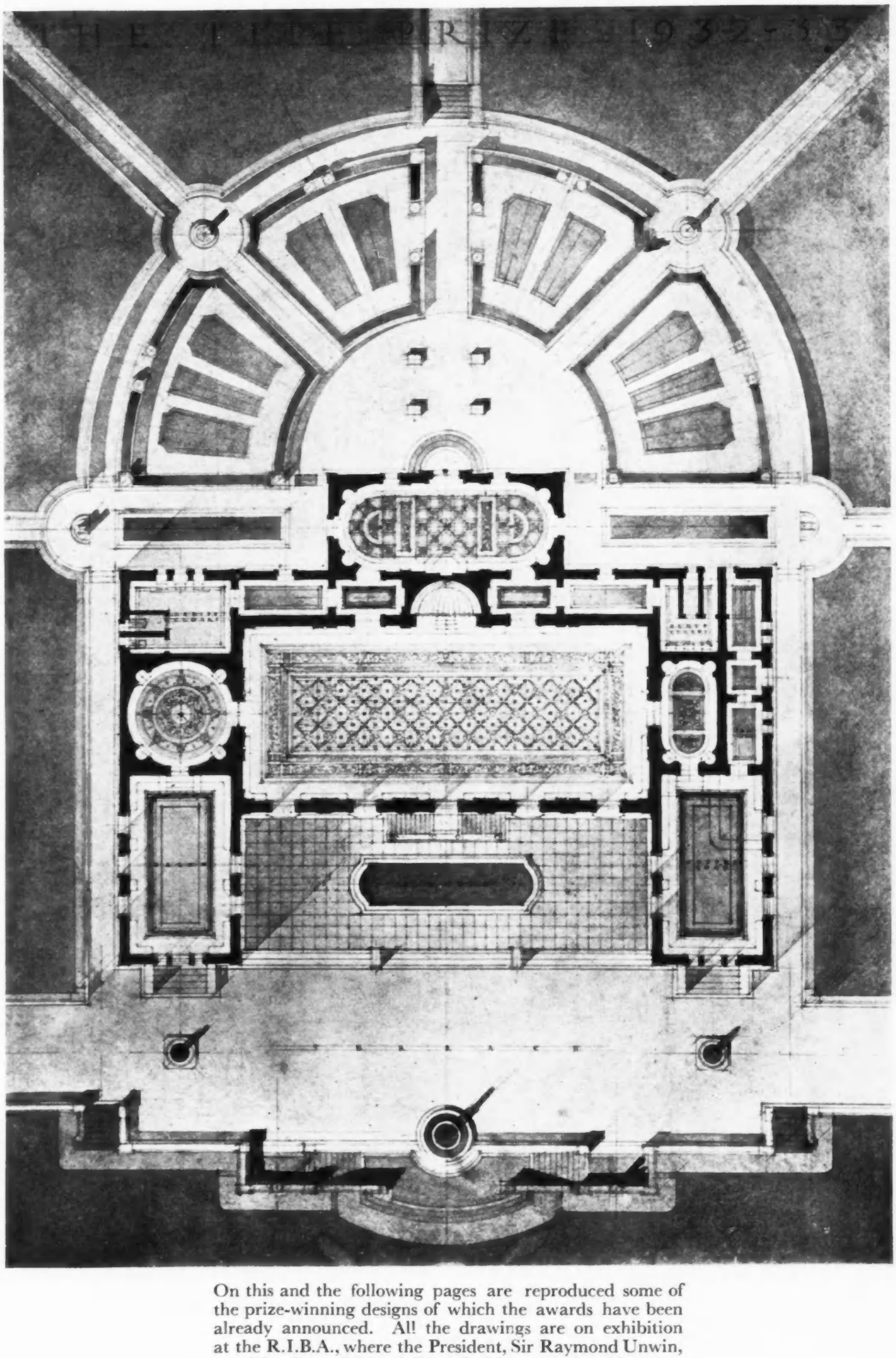
And thus through advertising shall our mentally-blind man be aroused from profound slumber, and a new gossamer web architecture be created for his dreams.

Publication Received

Guide Pratique de L'Urbaniste. By Jean Raymond. Paris: Dunod. Price 45 francs.

Books reviewed in these columns may be ordered through The Architectural Press, 9 Queen Anne's Gate, S.W.1.

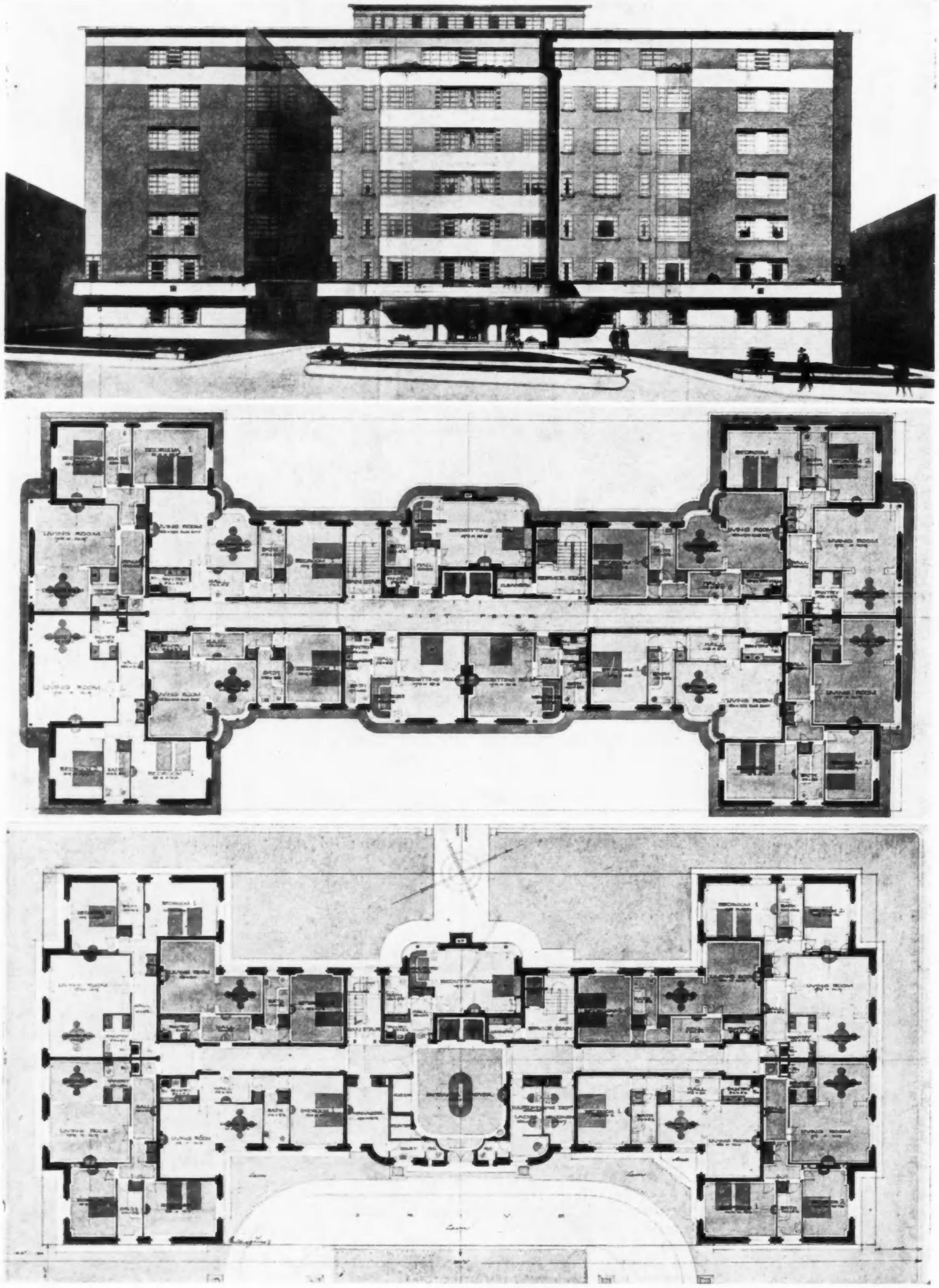
WINNING DESIGN IN THE TITE PRIZE



On this and the following pages are reproduced some of the prize-winning designs of which the awards have been already announced. All the drawings are on exhibition at the R.I.B.A., where the President, Sir Raymond Unwin, on Monday night, delivered his annual address to architectural students.

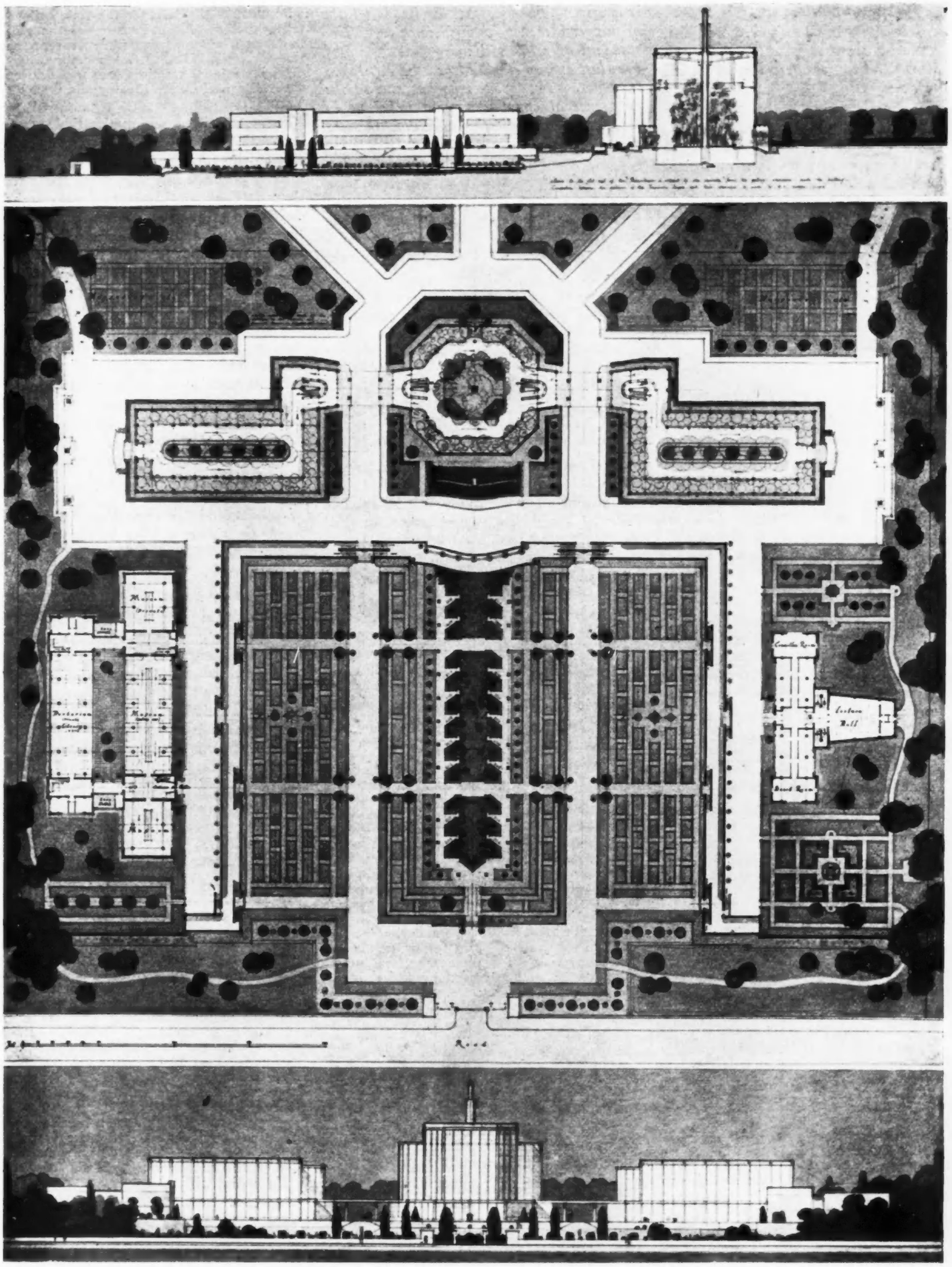
The Tite Prize (elevations on page 148) • A Ballroom in the Grounds of an Italian Embassy • Won by Alan Reiach (School of Architecture, Edinburgh College of Art).

R.I.B.A. AWARDS • WINNING DESIGNS IN THE



The Alfred Bossom Travelling Studentship • A Block of Service Flats • Won by D. E. Harrington, A.R.I.B.A. (Department of Architecture, Northern Polytechnic, London, N.)

ALFRED BOSSOM AND VICTORY SCHOLARSHIPS


Museum
Lecture Hall
Board Room
Road

The Victory Scholarship • A Group of Buildings and their Surrounding Lay-out in a Botanical Garden • Won by A. G. S. Fidler, B.ARCH. (Liverpool School.)

SOCIETIES AND INSTITUTIONS

DESIGNING AN INN

English Inns. By Basil Oliver. Sheffield, South Yorkshire and District Society of Architects and Surveyors. At Sheffield. January 12.

In designing an inn, one of the pitfalls for the architect to avoid is making it look like a bank or like Council offices or some technical institute. I can think of several instances. A public house should, in fact, look what it is but without being too "pubby," and it should be free externally rom all paper advertisements. The architect should have complete control over the lettering, which should be preferably in bronze gilt, or, at any rate, of simple Roman form, and restricted to the name of the house and the firm whose property it is, and whose products are on sale within.

Pictorial signs should be adopted wherever possible, and the wrought ironwork in connection with them should be simple, designed by the architect and executed by a smith who knows his job. Where the name of the house does not lend itself to pictorial treatment unaffected legible lettering should be adopted.

CHURCH TECHNIQUE

Modern Churches. By H. S. Goodhart-Rendel, F.R.I.B.A. Artworkers' Guild. January 6.

A new question that those who build churches in towns now have to face is that of how long a time they are building for, how soon the sites they are now covering will be cleared again and sold for commercial purposes. Unless the dwellers in mushroom suburbs show greater ambition to provide themselves with churches than they show now, it seems likely that the ecclesiastical authorities will pursue indefinitely their present policy of selling old buildings to pay for new ones (I speak here of the Church of England).

Let us give our new churches all the durability we can afford to pay for, in the hope that it will be needed. Let us, when we can, make them without stint of materials as resistant as possible to the general corrosion of time and weather, and, if need be, to the particular corrosion of polluted air. Let us refrain from the hazardous experiments of poise and counterpoise that in too many buildings of the Gothic age make their guardianship an unrelenting anxiety. Let us recognize, also, that the guardianship of church fabrics, when not kept alert by visible danger, is commonly neither vigilant nor wise, that what is out of sight to a churchwarden is commonly out of mind too, until a bit of it falls upon his head.

The church architects of the present reign have, as a body, shown no alacrity to learn from the shortcomings, and no aptitude for learning from the achievements, of their predecessors. They seldom attempt incombustible roofs, they have made little development in convenience of plan, and, when for reproduction they seem to give us novelty, that novelty is usually the involuntary product of ignorance. The glass-painter has lost little of his evil monopoly of decoration. The standard of organized mass-production has been lost and no standard as good has taken its place. To anyone who has studied the emergence of church-designing technique in the period immediately preceding that of Pugin, it is curious to observe how many of the errors of that time are recurring in ours.

I imagine that all defence against these strictures must be based upon three grounds: that there still, happily, are church architects at work who have not lost touch with tradition, that there are a few of their younger brethren making bold but rational experiments in development, and that in the work of almost all of our contemporary architects, good, bad and indifferent, there is greater sensitiveness than there used to be to surface qualities of colour and texture. I rejoice in the survival of the stalwart elders, in the enterprise of the not irresponsible young.

THE A.A. LEVERHULME SCHOLARSHIP

The Leverhulme scholarship is intended to enable suitable British students of insufficient means to obtain a full training for the architectural profession in the Architectural Association School of Architecture.

One scholarship of the value of £200 will be awarded each year, provided a candidate of sufficient merit presents himself, and will be tenable, subject to the general conduct of the student concerned and his or her progress being satisfactory, for one year, and may be renewed annually to cover a period of five years in all.

The scholarship will entitle the successful student to the following benefits :—

1 : Payment of the fees at the Architectural Association School of Architecture during the period of the scholarship.

2 : An annual allowance of £10 to cover subscriptions, working materials, etc.

3 : A maintenance allowance of £120 per annum which will be paid in 12 equal monthly instalments commencing on October 31 in each year, the last payment being made on July 1 of the year of the termination of the scholarship.

4 : During the fourth year, an allowance of £20 will be made for travel, and during the fifth year an allowance of £40 for travel abroad. The programme for these travels must be submitted to and approved by the Principal of the School of Architecture.

The Association may terminate at any time any of the scholarships or withhold the maintenance or travel allowances if the scholar's work and conduct are not satisfactory to the Council. In the event of a scholarship or maintenance allowance being terminated before the end of the fifth year course, the Council may transfer these benefits to another suitable student.

Candidates or their parents or guardians will be required to give evidence of means, and forms for this purpose together with scholarship application forms may be obtained from the Secretary of the Architectural Association.

A permanent committee has been set up to deal with the award of the scholarship. This is composed of the following members :

President of the A.A. for the time being ; a representative of the Trustees of the Will of the First Viscount Leverhulme ; a representative of the R.I.B.A. : two members of the Council of the A.A. ; the Director of Education the A.A. ; Mr. C. D. Medley and Mr. F. R. Yerbury.

The Committee will make their recommendations upon the results of an examination in the subjects to be selected and also after a personal interview with the candidates. The candidates will also be required to satisfy the committee that they have reached a standard of general education equal to that required for admission to the Architectural Association Schools for students generally. They must not be below the age of 17 years on December 31 in the year of application for the scholarship. Applications for the scholarship must be sent to reach the Secretary of the Architectural Association not later than June 1 in each year, after which due notice will be given of the date of the examination to be held later. The successful candidate will be admitted to the first-year course of the School at the commencement of the ensuing term in early October.

All communications on the above subject must be made to the Secretary of the Architectural Association, 36 Bedford Square, W.C.1.

HEALTH EXHIBITION AT BLACKPOOL

The annual congress and exhibition of the Royal Sanitary Institute will be held at Blackpool in June.

The exhibition, to which the general public are admitted, will give practical illustrations of the many appliances and products used in municipal administration, in hospitals and other public institutions and in the home.

LAW REPORTS

ALLEGED OBSTRUCTION FROM A HOARDING

Harper v. Haden and Sons, Ltd.—Court of Appeal. Before the Master of the Rolls and Lords Justices Lawrence and Romer.

THIS appeal, by the defendants, from a judgment of Mr. Justice Bennett, Chancery Division, raised an interesting point in regard to claims for damages for alleged obstruction of premises by the erection of a hoarding outside adjoining premises during the course of building operations. In the Court below the plaintiff brought an action for damages on the ground that the takings from his shop had been seriously reduced in consequence of the erection of a hoarding by the defendants, at adjoining premises, where they were carrying out certain building operations. It appeared that in order to provide for the safe passage of the public, the defendants had made a passage in front of the hoarding.

The plaintiff's case was that these obstructions were derogatory to his business and the public.

Defendants by their defence denied the plaintiff's allegations, and pleaded that the local authority had licensed the erection of the hoarding.

Mr. Justice Bennett held that the

plaintiff had suffered damage and gave judgment for him for £150.

From this the defendants now appealed, and Mr. Spens, K.C., argued the case on their behalf.

Mr. Elliott Gorst appeared for the respondent, and supported the finding of Mr. Justice Bennett.

The Court allowed the appeal with costs, holding that there had been no such prolonged or unreasonable inconvenience to the plaintiff as to constitute a wrongful act.

ALLEGED NUISANCE—MODERN CITIES AND BUILDING OPERATIONS

Salaman v. *Summit Estates, Ltd.—King's Bench Division. Before Mr. Justice Macnaghten.*

THIS was an action by the tenants of a top flat at Queen's Court, Hyde Park, Mr. and Mrs. Salaman, against the defendants, Summit Estates, Ltd., for damages for nuisance alleged to have been caused by the defendants in their erection of adjoining flats. Plaintiffs also sought an injunction.

Mr. Earengey, K.C., for the plaintiffs, said his clients complained of serious nuisance and inconvenience suffered by them from noise, etc., arising from the work of the defendants on adjoining flats from July, 1931, to April, 1932. There was the drilling when iron girders were put in, and hammering and dust when the various workmen were at work. The plaintiffs also complained of workmen working on a tennis court on the roof of the building, and the working of a machine in the ice rink. Owing to the continual noise the sleep of plaintiffs had been interfered with and visitors had had to be given beds in the hall. His clients also complained of noise from the lift. They held the flat on a seven years' agreement, at a yearly rental of £230.

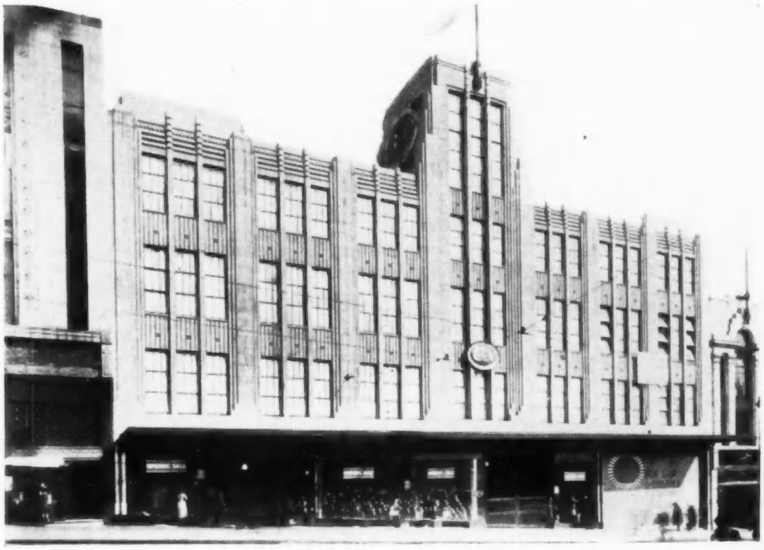
Plaintiffs gave evidence in support of their case and Mrs. Margaret Holmes also gave evidence, and stated that she left the flats in March, when there was continuous loud hammering.

Mr. Van den Berg, K.C., for the defendants, denied that there was any actionable nuisance. He submitted that when the plaintiffs took the flat they were aware of the work that was in contemplation on adjoining flats. Under their agreement it was provided that no diminution of rent or compensation should be claimed for discomfort arising from repairs and improvements at the flats or adjoining premises. Part of the work was alteration of flats in the nature of improvements contemplated under the agreement. As to the lift the defendants were not liable to plaintiffs in respect of any defect. According to the authorities a temporary inconvenience was not a breach of covenant for quiet enjoyment.

Mr. J. L. W. Crane, of Messrs. Lucas and Pike, a consulting engineer, said he had visited the building, and in his opinion every possible step was taken to prevent vibration being transmitted to the framework of the building.

His lordship held that the action failed, and dismissed it with costs. His lordship said plaintiffs complained of noise from the erection of additional flats, but in his view, having heard the evidence, he had no hesitation in saying that Mr. Salaman, one of the plaintiffs, had deluded himself into the views he had expressed. It must be admitted that the building was erected in a proper manner, and that no unnecessary noise was made. He thought that if people chose to live in a town they must put up with the inconveniences to be found in a town. It was not possible for a man to stop an adjoining owner from pulling his house down and erecting another, whatever the noise and inconvenience. On the evidence he arrived at the conclusion that there was no justification for the complaints.

LADIES' STORE AT SHEFFIELD

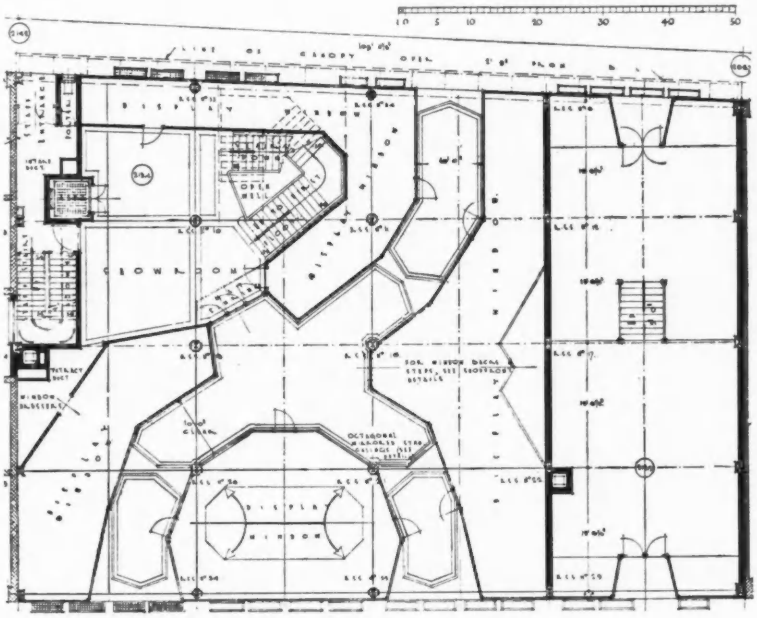


DESIGNED BY NORTH, ROBIN AND WILSDON

The new building recently completed in High Street, Sheffield, for Messrs. C. and A. Modes, consists of basement, ground, first and second floor showrooms, and a third floor devoted to workrooms, offices and canteen. The sub-soil was of rock and the whole site had to be excavated, an operation which took one month out of the six occupied in completing the structure, which is steel-framed, with entire elevations of artificial Portland stone. Maximum daylight has been obtained by the large, almost continuous, vertical windows between the piers.

The planning of the ground floor was difficult : an arcade was desired, giving direct access from High Street to King Street, and the whole of the ground floor had to be sloped in two directions owing to the fact that there was a considerable fall in the pavement levels and also a difference in level of six feet between the two streets. It is without steps, and acuteness of the slope has been obviated by taking it diagonally across the ground floor.

The main staircase, of oak, is some 7 ft. in width, with a wrought iron continuous balustrade. The whole of the window backs and window features are of veneered figured walnut. The basement is artificially ventilated and central heating is installed throughout.



TRADE NOTES

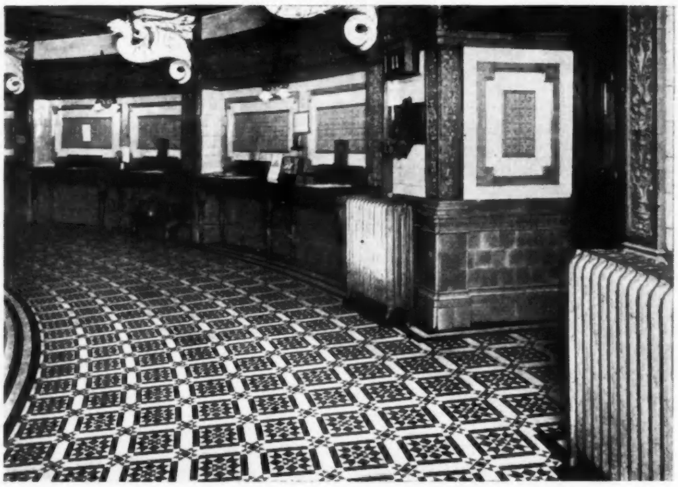
Over thirty-four years ago the Silvertown Co. laid a rubber floor in the branch of the Westminster Bank, Ltd., at 329 High Holborn, W.C.1, formerly known as Birbeck Buildings. The floor, which is shown in the photograph reproduced on this page, occupies the whole of the public space in the banking hall. Although it has naturally received much wear and tear, the floor has only required one trifling repair since its installation in 1898—and that during the last twelve months. It is claimed to be one of the oldest floors of its type in existence. The architect for the building was the late T. E. Knightley, of Messrs. Knightley and Battenbury.

*

Messrs. The Kleine Company, Ltd., of New Oxford House, Hart Street, Bloomsbury, W.C.1, have secured the contract for the erection of their Kleine patent reinforced hollow brick floors, flat roofs, balcony steppings and staircases at the New Cinema in Rowlands Road, Worthing. The cinema, which also includes a number of well-appointed shops, is being built for Messrs. Kay Bros., of 167, Oxford Street, W.1, who have been associated with cinematograph entertainment since its inception. The cinema has been designed by H. Weston. Work will commence on the site almost immediately, and it is expected to be opened early in June.

*

The Key Underfloor Duct System for the distribution of lighting, heating, power, telephone and bell services in banks, large office buildings, hotels, etc., is illustrated and described in a booklet recently issued by the Key Engineering Co., Ltd., of London and Manchester. The duct is made of fibrous material impregnated with a preservative bituminous compound, consequently breathing and condensation are at a minimum. It is stated that it has been proved by many years of experience that the duct cannot ignite through cable breakdowns. The System, it is claimed, permits the placing of outlets for additional desk lights, telephones, buzzers, etc., for use when and where required, on any magnitude of floor area, without unsightly expedients, at any time during the life of the building. Wires are hidden from view. Draw-in box covers and outlet fittings are so made that the flooring is not damaged in removing box covers or in making outlet connections. All future development is provided for without disfigurement. No joints or tees are made underfloor either in the Duct or draw-in boxes; and all points are looped in. Also, no cables are laid in the ducts until required, and no outlet is made until the floor is completed. The cables are drawn in as and when required. Ceiling lights and wall fittings fixed in predetermined positions, each of these points is fed from a draw-in box, dead end or special outlet. The whole system is claimed to be water-tight.



Banking hall, Westminster Bank, 329 High Holborn, W.C. The rubber floor is claimed to be one of the oldest in existence. See note on this page.

Messrs. Rhodes, Brydon and Young, of Gorsey Mount Street, Stockport, have just issued a leaflet (No. 146) devoted to the Axcel Mopump.

*

Artistic Concrete is the title of a brochure recently issued by the Cement Marketing Co., Ltd., of Portland House, Tothill Street, S.W.1. It illustrates, in colour, various types of structure for which one or other of the products supplied by the firm for producing artistic concrete have been used. These photographs show a road house, faced with white cement; a row of council houses sprayed with cream cement; a weir sprayed with white cement; a public garage rendered with cream cement; a factory with walls of white concrete throughout; a cinema in various coloured cements; swimming baths faced with white cement; and a road with buff concrete carriageway, etc. Most of the pictures are reproduced from actual colour photographs.

OBITUARY

We regret to record the death of Mr. Charles Magee, the Belfast Branch Manager of Messrs. W. T. Henley's Telegraph Works Co., Ltd. Mr. Magee had been in charge of the Belfast branch since September, 1924.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

House at Upper Basildon, Berks (page 143). General contractors, T. Harding and Sons. Sub-contractors: B. G. Suthers, Ltd., electric light installation; Aquaheat Co., heating and hot-water supplies; Educational Supply Association, Ltd., sliding doors to loggia; The Guildford Glass Works, metal casements; Sussex Brick and Tile Co., tiles; Thomas Lawrence and Sons, bricks; John Bolding and Sons, Ltd., sanitary fittings.

New Police Station, Eastleigh (pages 144–145). General contractor, C. T. Tucker. Engineers, L. G. Mouchel and Partners. Sub-contractors: Playfair and Toole, Ltd., reinforced concrete work; Whitehead Iron and Steel Co., steel; Daneshill Brick and Tile Works, Ltd., external brick facings; James Gibbons, general ironmongery, manganese steel windows (cells) and cell doors, etc.; Hartshill Brick and Tile Co. supplied the roof tiling, which was executed by W. T. Lamb and Sons; Hyflo Gould, Ltd., Hyflo-Gould system of hot water heating to cells, charge-room and writing-room; installation of hot-water heating by Cook and Son; installation of domestic hot water by G. Green; Wm. Sugg & Co., gas fittings; Shepherd and Hedger, furniture and fittings.

New Shop Premises, High Street and King Street, Sheffield (page 153). General contractors, George Longden and Sons, Ltd. Sub-contractors: D. O'Neill and Sons, demolition; Banister, Walton & Co., Ltd., steelwork; Crittall Manufacturing Co., Ltd., metal windows; Hodkin and Jones, Ltd., artificial stone and fibrous plaster; Saunders and Taylor, Ltd., heating and ventilating; Waygood-Otis, Ltd., lift; E. Coules and Son, metal balustrading, etc.; Saml. Elliott and Sons, Ltd., shop fronts; F. Naylor, Ltd. (Marb-l-Cote Material), decorations; J. H. Maynard, flag staff and flags; Monarch Flooring Co., patent floors; Yannedis & Co., ironmongery; Luxfer, Ltd., pavement lights and roof lights; Leeds Fireclay Co., Ltd., sanitary fittings; Hollis Bros. & Co., Ltd., wood block floors; Philips Lamps, Ltd., lighting fittings; Arthur Lyon & Co., electric clock; Waring and Gillow, Ltd., carpets, etc.; Baker and Hyman, Ltd., electrical installation.

Stalls Bar, His Majesty's Theatre (Supplement). Hall and Dixon, plasterwork, woodwork and decoration; J. Jeffreys & Co., Ltd., ventilation; Strand Electrical Engineering Co., Ltd., electrical work.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at KENLEY : 42 houses, Kenmore Road, Oaks Road ; and new road off Oaks Road, for Mr. F. W. Thomas.

Plans passed at SOUTHGATE : Additions, Chase Bank Nursing Home, Avenue Road, for Miss Jarvis ; lay-out of land, Drayton Gardens, for Mr. Tomlin ; lay-out, rear Cherry Tree Hotel, for Temple Estates Co. ; factory, Chequers Way, for The Metal Box Co. ; (amended) eight houses, Willow Walk, for The Ideal Housing Co.; six houses, Bowes Road, for Mr. W. S. Read ; lay-out of Oak Lodge Estate, for Messrs. Matthews and Son ; six shops, Green Lanes, for Mr. S. Scott ; two houses, Hoppers Road, for Mr. W. Drinkwater ; four houses, Woodcroft, for Mr. G. W. S. Ingram ; two houses, Dawlish Avenue, for Mr. C. E. Ward ; extension to factory, North Circular Road, for The Metal Box Co., Ltd. ; house, Arnos Grove, for Messrs. H. S. Couchman and Sons ; shop and seven flats, Hazelwood Lane, for Mr. A. Pryke ; six houses, Brookdale, for James' Estates, Ltd. ; 63 houses, Greenway, for Mr. C. E. Hartshorne ; six houses, Drayton Gardens, for Mr. F. F. Tomlin ; five houses, Wades Hill, for Messrs. Martyn, Ltd.

The TEDDINGTON U.D.C. has agreed upon a scheme for the extension of the swimming bath, and instructed the architect to include in the scheme the provision of a separate pool for children and non-swimmers.

SOUTHERN COUNTIES

Plans passed at PORTSMOUTH : Transformer sub-station, Crown Street, for Messrs. Hipperson and Son ; additions and alterations, 2, Albert Road, for Messrs. Jordan, Ltd. ; house, Meryl Road, for Messrs. Cake and McPherson ; eight houses, Northern Parade, for Mr. E. A. G. Wright ; house, Lodge Avenue, Cosham, for Mr. J. C. Nicholls ; public-house, Cobden Avenue and Westover Road, public-house, Moneyfields-Redcar Avenues, and hotel premises, London Road, Hillsea, for Portsmouth and Brighton United Breweries, Ltd. ; two houses, Kingsley Road, for City and Suburban Builders ; house, Sussex Road, for Mr. C. V. Thorpe ; additions, 52, Albert Road, for Messrs. Morey & Co. ; house, Kent Road, for Mr. C. V. Thorpe ; winter gardens, Southsea Terrace, for Southsea Development Co., Ltd.

SOUTH-WESTERN COUNTIES

The BRISTOL Corporation Municipal Buildings Committee has further considered the appointment of an architect for the work of preparing plans and elevations in connection with the proposed municipal buildings, and re-submits its former recommendation that Mr. E. Vincent Harris, F.R.I.B.A., be appointed the architect to carry out the work.

Plans passed at PAIGNTON : Four flats, Cedar Road, for Messrs. T. H. and L. Rees ; layout of five houses, new road, off Preston Down Road, for Mr. W. H. Webber ; extension to pavilion, South Devon Holiday Camp, for Mr. R. T. Leins ; four houses, Marldon Avenue, for Messrs. Mitchell Bros.

Plans passed at PLYMOUTH : Three houses, Vapron Way, for Mr. M. Oldrey ; four houses, Mutley Park, for Mr. F. Pearse ; eight houses, Edith Avenue, for Mr. J. Rendle ; six houses, Broome Park Estate, for Mr. F. J. Squance ; seven houses, South View Terrace, for Messrs. Mexbro, Ltd. ; additions, Blue Bird Café, Efford Road, for Mrs. Cannon ; alterations and additions, 34 Hobart Street, for Mr. G. Sparkes ; two houses, Victoria Road, St. Budeaux, for Messrs. A. E. Searle and Son ; two houses, Park Road, Lower Compton, for Mr. J. Hannaford ; two houses, Thornhill Road, for Mr. R. H. Roberts ; two houses, Green Park Avenue, for Messrs. Brown and Sleeman.

Plans passed by the TORQUAY Corporation : Two bungalows, St. Vincents Road, for Mrs. Jackson ; two bungalows, Marldon Road, Shiphay, for Mr. H. Pearce ; additions, Burlington Hotel, Babbacombe Road, for Mr. H. Shearing ; house, Wellswood Hall estate, for Mr. L. E. Curry ; additions, Livermead Cliff Hotel, Torbay Road, for Mr. E. Hardman ; flats, Cleveland Road, for Mr. F. C. Yeo ; flats, St. Marychurch Road, for Mr. J. Blackler ; four houses, Reeves Road, for Chelston Building Co. ; two bungalows, Shiphay Lane, for Mr. H. J. Breyley ; house, Watcombe Heights estate, for Mr. H. J. Scoles ; house, Marldon Road, for Mr. W. A. Pridham ; alterations, 25 Union Street, for Mr. W. D. Creed.

The TORQUAY Corporation Electricity Committee is negotiating for the acquisition of land at Moretonhampstead, for a sub-station, stores and showroom.

MIDLAND COUNTIES

The BIRMINGHAM Education Committee is to proceed with the erection of the school for printing at a cost of £28,000.

The BIRMINGHAM Corporation is to proceed with the construction of roadways across the hospitals centre site at Edgbaston and connect up roads with the adjoining thoroughfares at a cost of £29,600.

Plans passed at DUDLEY : House, New Rowley Road, for Mr. W. Lindley ; house, Paganel Drive, Priory Estate, for Mr. C. W. Hughes ; four houses, Priory Road, Priory Estate, for Mr. William Whittingham ; two houses, Hockley Lane, Netherton, for Messrs. Hackeson Bros. : four houses, New Rowley Road, for Mr. C. P. Blewitt : eight houses, Cradley Road, Netherton, for Mr. Wm. Roberts ; sports stadium and greyhound racing track, Tipton Road, for Mr. A. E. Shannon : two houses, Priory Estate, for Messrs. Brookes Bros.

The STOKE-ON-TRENT Corporation has passed amended plans by Messrs. Beckett and Bloore, architects, for the development of an estate in the vicinity of London Road, Oakhill, on behalf of Messrs. W. Ball and Sons.

The STOKE-ON-TRENT Corporation has agreed to recommendations by Messrs. Wood and Goldstraw, architects, on behalf of Messrs. W. and P. Adams, for the development of land in the vicinity of Clanway Lane, Tunstall.

Plans passed at SUTTON COLDFIELD : 14 houses, Holdfast Road, for Mr. F. C. Price ; club and dining-room, Hill Village Road, for Messrs. Mitchells and Butlers ; 33 houses, Kineton and Haselor Roads, for Mr. J. White (jun.) ; house, Little Sutton Lane, for Mr. L. W. Blackie ; two houses, Oakwood Road, for Mr. G. Foster ; four houses, Queslett Road, for Mr. R. Jesper ; house, Station Road, for Mr. C. H. Nuttall ; two houses, Station and Western Roads, for Mr. F. W. Tew ; house, Slade Road, for Messrs. Flemming and Sons ; two houses, Somerville Road, for Messrs. Usherwood and Martin ; four houses, Tamworth Road, for Messrs. Streathers, Ltd. ; house, Vesey Road, for Mrs. Lovall.

Messrs. Walker, Lloyd and Hill are to develop the Aldersley estate, WOLVERHAMPTON, the Corporation having arranged for a density not greater than 10 houses per acre.

NORTHERN COUNTIES

Plans passed by the BLACKPOOL Corporation : Two houses, Warbreck Hill Road, for Messrs. A. and E. Fielding ; two houses and shops, Collingwood Avenue, for Mr. H. H. Vickers ; house, Promenade Road, for Mr. H. Henson ; 16 houses, Walpole Avenue, for Lancashire Construction Co. ; two houses, Hawes Side Lane, for Messrs. J. J. and S. Hayes, Ltd. ; two houses, Hawes Side Lane, for Mr. J. W. Harrison ; house, Harrington Avenue, for Mr. G. Woodhead ; two houses, Harcourt Road, for Mr. T. Sanderson ; four houses, Queens Drive, for Mr. W. Wrigley ; 42 houses, Gretna Crescent, for Mr. H. B. Pownall ; 11 houses, Arkholme Avenue, for Mr. F. Potts ; five houses, St. Annes Road, for Messrs. Hodgson and Whittaker ; house, Collingwood Avenue, for Mr. D. Chadwick ; two houses, Park Road, for Mr. S. A. Howard ; eight houses, Alderley Avenue, for Mr. T. Foster ; 27 houses, St. Martins Road, for Messrs. J. Birtwistle, Ltd. ; 48 houses, Finsbury Avenue, for Messrs. J. J. and S. Hayes ; six houses, Queens Drive, for Messrs. G. Hodgson and Sons, Ltd. ; house, Queens Drive, for Mr. H. Pears ; 13 houses, Willows Avenue, for Mr. A. A. Holt ; alterations, Queens Drive, for Williams Deacons Bank, Ltd.

The BRADFORD Corporation is to submit to the Ministry of Health the proposal for granting subsidies to the Sutton Dwellings Trust in respect of 283 houses proposed to be erected by the Trust in Dick Lane.

Plans passed at CARLISLE : Two houses, Upperby Road, for Mr. S. Mann ; eight houses, London Road, for Messrs. Benwell and Slack ; two houses, Rosebery Road, for Messrs. A. Clakeley and Sons ; office and buildings, Milbourne Street, for the Border Engineering Contractors, Ltd. ; four houses, Brampton Road, for the Border Engineering Contractors, Ltd. ; estate lay-out, Wigton Road and Orton Road, for Messrs. Benwell and Slack.

An early start is to be made with the new buildings for the Methodist church and schools in Thornton Lodge Road, HUDDERSFIELD, from the designs of Mr. W. A. Kellett. The Trustees have placed the contract with Messrs. Graham and Jessop, Ltd., Moldgreen, Huddersfield. The scheme consists of a church to seat 350 persons and a comprehensive set of premises for Sunday school and institute purposes.

Plans passed at ROTHERHAM : House, Bradgate Lane, for Mr. E. Ogley ; alterations and additions to store, Bridgegate, for Messrs. E. Russem and Sons ; new streets, Moorgate Road, for Messrs. Sutcliffe and Taylor ; two houses, Moorgate Road, for Mr. E. Sutcliffe ; conversion of house into shop, 385 Doncaster Road, for Mr. W. Tyrrell ; 34 houses, Moor Lane and Byron Drive, for Mr. A. V. Hopkins : two houses, Doncaster Road, for Messrs. S. Elmore and Sons.

The SCARBOROUGH Corporation has approved a rough scheme for the development of land at Peasholm Gap.

The SCARBOROUGH Corporation has arranged to provide a loan for the Scarborough Hospital Board in connection with the scheme for the provision of a maternity block, at a cost of about £10,000.

Plans passed by the STOCKTON-ON-TEES Corporation : four houses, Albany Road, for Mr. T. W. T. Richardson ; house, Hartburn Avenue, for Mr. C. P. Stainsby ; two houses, Cumberland Grove, for Messrs. Moorhouse and Barker ; new streets on Highfield estate, for Mr. R. B. Bainbridge.

Plans passed by the WAKEFIELD Corporation : 10 houses, Balne Lane, for Mr. J. Percy Firth ; nine houses, Denby Dale Lane, for Mr. A. Ball ; three houses, Dewsbury Road, for Mr. W. H. Ogden ; alterations and additions, Star Inn, Standbridge, for Barnsley Brewery Co., Ltd. ; four houses, Marizon Grove, for Messrs. Kay and Lunan ; house, Blenheim Road, for Messrs. Massie and Holdsworth.

Plans passed by the WARRINGTON Corporation : parish hall, Lindley Avenue, for Rev. W. Greenwood ; sub-station, Howley, for Central Electricity Board.

The WARRINGTON Corporation is to seek sanction to erect 146 further houses on the Bewsey and Westy Lane estates.

The Board of Education has approved plans of the West Bromwich Education Committee and prepared by A. O. Chatterley, for the erection of a school at Friar Park, WEST BROMWICH.

The YORK Corporation has sold two building sites in Carr Lane to Mr. N. Hall.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 5½	1 1¼
A_1	Abergavenny	S. Wales & M.	1 5½	1 1¼
A_3	Abingdon	S. Counties	1 4½	1 0½
A	Accrington	N.W. Counties	1 6	1 1½
A_3	Addlestone	S. Counties	1 4½	1 0½
A	Adlington	N.W. Counties	1 6	1 1½
A	Airdrie	Scotland	*1 6	1 1½
C	Aldeburgh	E. Counties	1 2	10½
A	Altrincham	N.W. Counties	1 6	1 1½
B_3	Appleby	N.W. Counties	1 2½	11
A	Ashton-under-Lyne	N.W. Counties	1 6	1 1½
A_3	Atherstone	Mid. Counties	1 4½	1 0½
B_2	Aylesbury	S. Counties	1 3	11½
B_1	BANBURY	S. Counties	1 3½	11¾
B_1	Bangor	N.W. Counties	1 3½	11¾
A_3	Barnard Castle	N.E. Coast	1 4½	1 0½
A	Barnsley	Yorkshire	1 6	1 1½
B	Barnstaple	S.W. Counties	1 4	1 0
A	Barrow	N.W. Counties	1 6	1 1½
A	Barry	S. Wales & M.	1 6	1 1½
B_1	Basingstoke	S.W. Counties	1 3½	11¾
A_3	Bath	S.W. Counties	1 4½	1 0½
A	Batley	Yorkshire	1 6	1 1½
A_3	Bedford	E. Counties	1 4½	1 0½
A_2	Berwick-on-Tweed	N.E. Coast	1 5	1 0¾
A_2	Bewdley	Mid. Counties	1 5	1 0¾
B_3	Bicester	S. Counties	1 2½	11
	Birkenhead	N.W. Counties	*1 7½	1 2¾
A	Birmingham	Mid. Counties	1 6	1 1½
A_1	Bishop Auckland	N.E. Coast	1 5½	1 1¼
A	Blackburn	N.W. Counties	1 6	1 1½
A	Blackpool	N.W. Counties	1 6	1 1½
A	Blyth	N.E. Coast	1 6	1 1½
B_2	Bognor	S. Counties	1 3	11½
A	Bolton	N.W. Counties	1 6	1 1½
A_3	Boston	Mid. Counties	1 4½	1 0½
A_3	Bournemouth	S. Counties	1 4½	1 0½
B_2	Bovey Tracey	S.W. Counties	1 3	11½
A	Bradford	Yorkshire	1 6	1 1½
A_2	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 6	1 1½
B_1	Bridgwater	S.W. Counties	1 3½	11¾
A_1	Bridlington	Yorkshire	1 5½	1 1¼
A	Brighouse	Yorkshire	1 6	1 1½
A_3	Brighton	S. Counties	1 4½	1 0½
A	Bristol	S.W. Counties	1 6	1 1½
B_3	Brixham	S.W. Counties	1 2½	11
A_2	Bromsgrove	Mid. Counties	1 5	1 0¾
C	Bromyard	Mid. Counties	1 2	10½
A	Burnley	N.W. Counties	1 6	1 1½
A	Burslem	Mid. Counties	1 6	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½
A	Bury	N.W. Counties	1 6	1 1½
A_1	Buxton	N.W. Counties	1 5½	1 1¼
A_2	CAMBRIDGE	E. Counties	1 5	1 1¾
B_2	Canterbury	S. Counties	1 3	11½
A	Cardiff	S. Wales & M.	1 6	1 1½
A	Carlisle	N.W. Counties	1 6	1 1½
B	Carmarthen	S. Wales & M.	1 4	1 0
B	Carnarvon	N.W. Counties	1 4	1 0
A	Carnforth	N.W. Counties	1 6	1 1½
A	Castleford	Yorkshire	1 6	1 1½
B	Chatham	S. Counties	1 4	1 0
B	Chelmsford	E. Counties	1 4	1 0
A_3	Cheltenham	S.W. Counties	1 4½	1 0½
A	Chester	N.W. Counties	1 6	1 1½
A	Chesterfield	Mid. Counties	1 6	1 1½
B_2	Chichester	S. Counties	1 3	11½
A	Chorley	N.W. Counties	1 6	1 1½
B_2	Cirencester	S. Counties	1 3	11½
A	Clitheroe	N.W. Counties	1 6	1 1½
A	Clydebank	Scotland	1 6	1 1½
A	Coalville	Mid. Counties	1 6	1 1½
A_3	Colchester	E. Counties	1 4½	1 0½
A	Colne	N.W. Counties	1 6	1 1
A_2	Colwyn Bay	N.W. Counties	1 5	1 0¾
A_1	Consett	N.E. Coast	1 5½	1 1¼
A_2	Conway	N.W. Counties	1 5	1 0¾
A	Coventry	Mid. Counties	1 6	1 1½
A_2	Crewe	N.W. Counties	1 5	1 0¾
A_3	Cumberland	N.W. Counties	1 4½	1 0½
A	DARLINGTON	N.E. Coast	1 6	1 1½
A	Darwen	N.W. Counties	1 6	1 1½
B_2	Deal	S. Counties	1 3	11½
A_3	Denbigh	N.W. Counties	1 4½	1 0½
A	Derby	Mid. Counties	1 6	1 1½
A	Dewsbury	Yorkshire	1 6	1 1½
B	Didcot	S. Counties	1 4	1 0
A	Doncaster	Yorkshire	1 6	1 1½
B_2	Dorchester	S.W. Counties	1 3	11½
A_3	Driffield	Yorkshire	1 4½	1 0½
A_2	Droitwich	Mid. Counties	1 5	1 0¾
A	Dudley	Mid. Counties	1 6	1 1½
A	Dundee	Scotland	1 6	1 1½
A	Durham	N.E. Coast	1 6	1 1½
A_3	EASTBOURNE	S. Counties	1 4½	1 0½
A_1	Ebbw Vale	S. Wales & M.	1 5½	1 1¼
A	Edinburgh	Scotland	1 6	1 1½
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5½	1 1¼
A_2	Exeter	S.W. Counties	*1 5	1 0¾
B_1	Exmouth	S.W. Counties	1 3½	11¾
A_3	FELIXSTOWE	E. Counties	1 4½	1 0½
A_3	Filey	Yorkshire	1 4½	1 0½
A	Fleetwood	N.W. Counties	1 6	1 1½
B_2	Folkestone	S. Counties	1 3	11½
A	Frodsham	N.W. Counties	1 6	1 1½
B_2	Frome	S.W. Counties	1 3	11½
A	GATESHEAD	N.E. Coast	1 6	1 1½
B	Gillingham	S. Counties	1 4	1 0
A_2	Gloucester	S.W. Counties	1 5	1 0¾
A_2	Goole	Yorkshire	1 5	1 0¾
A_3	Gosport	S. Counties	1 4½	1 0½
A_3	Grantham	Mid. Counties	1 4½	1 0½
A_1	Gravesend	S. Counties	1 5½	1 1¼
A	Greenock	Scotland	*1 6	1 1½
A	Grimsby	Yorkshire	1 6	1 1½
B_1	Guildford	S. Counties	1 3½	11¾
A	HALIFAX	Yorkshire	1 6	1 1½
A	Hanley	Mid. Counties	1 6	1 1½
A	Harrogate	Yorkshire	1 6	1 1½
A	Hartlepools	N.E. Coast	1 6	1 1½
B	Harwich	E. Counties	1 4	1 0
B_2	Hastings	S. Counties	1 3	11½
A_3	Hatfield	S. Counties	1 4½	1 0½
B	Hereford	S.W. Counties	1 4	1 0
A_3	Hertford	E. Counties	1 4½	1 0½
A	Heysham	N.W. Counties	1 6	1 1½
A	Howden	N.E. Coast	1 6	1 1½
A	Huddersfield	Yorkshire	1 6	1 1½
A	Hull	Yorkshire	1 6	1 1½
A	ILKLEY	Yorkshire	1 6	1 1½
A	Immingham	Mid. Counties	1 6	1 1½
A_3	Ipswich	E. Counties	1 4½	1 0½
B_3	Isle of Wight	S. Counties	1 2½	11
A	JARROW	N.E. Coast	1 6	1 1½
A	KEIGHLEY	Yorkshire	1 6	1 1½
B	Kendal	N.W. Counties	1 4	1 0
B	Keswick	N.W. Counties	1 4	1 0
A_2	Kettering	Mid. Counties	1 5	1 0¾
A_2	Kidderminster	Mid. Counties	1 5	1 0¾
B_2	King's Lynn	E. Counties	1 3	11½
A	LANCASTER	N.W. Counties	1 6	1 1½
A_2	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 6	1 1½
A	Leek	Mid. Counties	1 6	1 1½
A	Leicester	Mid. Counties	1 6	1 1½
A	Leigh	N.W. Counties	1 6	1 1½
B_3	Lewes	S. Counties	1 2½	11
A_2	Lichfield	Mid. Counties	1 5	1 0¾
A	Lincoln	Mid. Counties	1 6	1 1½
	Liverpool	N.W. Counties	*1 7½	1 2¾
A_2	Llandudno	N.W. Counties	1 5	1 0¾
A	Llanelly	S. Wales & M.	1 6	1 1½
	London (12-miles radius)		1 7½	1 2¾
	Do. (12-15 miles radius)		1 7	1 2½
A	Long Eaton	Mid. Counties	1 6	1 1½
A	Loughborough	Mid. Counties	1 6	1 1½
A_3	Luton	E. Counties	1 4½	1 0½
A	Lytham	N.W. Counties	1 6	1 1½
A_1	MACCLESFIELD	N.W. Counties	1 5½	1 1¼
B	Maidstone	S. Counties	1 4	1 0
A_3	Malvern	Mid. Counties	1 4½	1 0½
A	Manchester	N.W. Counties	1 6	1 1½
A	Mansfield	Mid. Counties	1 6	1 1½
B_1	Margate	S. Counties	1 3½	11¾
A_3	Matlock	Mid. Counties	1 4½	1 0½
A_1	Merthyr	S. Wales & M.	1 5½	1 1¼
A	Middlesbrough	N.E. Coast	1 6	1 1½
A_2	Middlewich	N.W. Counties	1 5	1 0¾
B_2	Minehead	S.W. Counties	1 3	11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3	11½
A	Morecambe	N.W. Counties	1 6	1 1½
A_2	NANTWICH	N.W. Counties	1 5	1 0¾
A	Neath	S. Wales & M.	1 6	1 1½
A	Nelson	N.W. Counties	1 6	1 1½
A	Newcastle	N.E. Coast	1 6	1 1½
A	Newport	S. Wales & M.	1 6	1 1½
A	Normanton	Yorkshire	1 6	1 1½
A_1	Northampton	Mid. Counties	1 5½	1 1¼
A	North Staffs.	Mid. Counties	1 6	1 1½
A	North Shields	N.E. Coast	1 6	1 1½
A_2	Norwich	E. Counties	1 5	1 0¾
A	Nottingham	Mid. Counties	1 6	1 1½
A	Nuneaton	Mid. Counties	1 6	1 1½
A_3	OAKHAM	Mid. Counties	1 4½	1 0½
A	Oldham	N.W. Counties	1 6	1 1½
A_3	Oswestry	N.W. Counties	1 4½	1 0½
A_2	Oxford	S. Counties	1 5	1 0¾
A	PAISLEY	Scotland	*1 6	1 1½
B_3	Pembroke	S. Wales & M.	1 2½	11
A	Perth	Scotland	*1 6	1 1½
A_2	Peterborough	E. Counties	1 5	1 0¾
A	Plymouth	S.W. Counties	*1 6	1 1½
A	Pontefract	Yorkshire	1 6	1 1½
A_1	Pontypridd	S. Wales & M.	1 5½	1 1¼
A_3	Portsmouth	S. Counties	1 4½	1 0½
A	Preston	N.W. Counties	1 6	1 1½
A	QUEENSFERRY	N.W. Counties	1 6	1 1½
A_2	READING	S. Counties	1 5	1 0¾
B	Reigate	S. Counties	1 4	1 0
A_3	Retford	Mid. Counties	1 4½	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 5½	1 1¼
A_3	Ripon	Yorkshire	1 4½	1 0½
A	Rochdale	N.W. Counties	1 6	1 1½
B	Rochester	S. Counties	1 4	1 0
A_1	Ruabon	N.W. Counties	1 5½	1 1¼
A	Rugby	Mid. Counties	1 6	1 1½
A_3	Rugeley	Mid. Counties	1 4½	1 0½
A	Runcorn	N.W. Counties	1 6	1 1½
A_2	ST. ALBANS	E. Counties	1 5	1 0¾
A	St. Helens	N.W. Counties	1 6	1 1½
B_3	Salisbury	S.W. Counties	1 2½	11
A_1	Scarborough	Yorkshire	1 5½	1 1¼
A	Scunthorpe	Mid. Counties	1 6	1 1½
A	Sheffield	Yorkshire	1 6	1 1½
A	Shipley	Yorkshire	1 6	1 1½
A_2	Shrewsbury	Mid. Counties	1 5	1 0¾
A_2	Skipton	Yorkshire	1 5	1 0¾
A_3	Slough	S. Counties	1 4½	1 0½
A_2	Solihull	Mid. Counties	1 5	1 0¾
A_2	Southampton	S. Counties	1 5	1 0¾
A_2	Southend-on-Sea	E. Counties	1 5	1 0¾
A	Southport	N.W. Counties	1 6	1 1½
A	S. Shields	N.E. Coast	1 6	1 1½
A_2	Stafford	Mid. Counties	1 5	1 0¾
A	Stockport	N.W. Counties	1 6	1 1½
A	Stockton-on-Tees	N.E. Coast	1 6	1 1½
A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
B	Stroud	S.W. Counties	1 4	1 0
A	Sunderland	N.E. Coast	1 6	1 1½
A	Swadlincote	Mid. Counties	1 6	1 1½
A	Swansea	S. Wales & M.	1 6	1 1½
A_3	Swindon	S.W. Counties	1 4½	1 0½
A_1	TAMWORTH	N.W. Counties	1 5½	1 1¼
B	Taunton	S.W. Counties	1 4	1 0
A	Teesside Dist.	N.E. Counties	1 6	1 1½
A_3	Teignmouth	S.W. Coast	1 4½	1 0½
A	Todmorden	Yorkshire	1 6	1 1½
A_1	Torquay	S.W. Counties	1 5½	1 1¼
C	Truro	S.W. Counties	1 2	10½
B	Tunbridge Wells	S. Counties	1 4	1 0
A	Tunstall	Mid. Counties	1 6	1 1½
A	Tyne District	N.E. Coast	1 6	1 1½
A	WAKEFIELD	Yorkshire	1 6	1 1½
A	Walsall	Mid. Counties	1 6	1 1½
A	Warrington	N.W. Counties	1 6	1 1½
A_2	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 5	1 0¾
A	West Bromwich	Mid. Counties	1 6	1 1½
A_2	Weston-s.-Mare	W. Counties	1 5	1 0¾
A_2	Whitby	Yorkshire	1 5	1 0¾
A	Widnes	N.W. Counties	1 6	1 1½
A	Wigan	N.W. Counties	1 6	1 1½
B_1	Winchester	S. Counties	1 3½	11¾
A_3	Windsor	S. Counties	1 4½	1 0½
A	Wolverhampton	Mid. Counties	1 6	1 1½
A_2	Worcester	Mid. Counties	1 5	1 0¾
A_3	Worksop	Yorkshire	1 4½	1 0½
A_1	Wrexham	N.W. Counties	1 5½	1 1¼
A_3	Wycombe	S. Counties	1 4½	1 0½
B_1	YARMOUTH	E. Counties	1 3½	11¾
B_1	Yeovil	S.W. Counties	1 3½	11¾
A	York	Yorkshire	1 6	1 1½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7½
Carpenter	„		1	7½
Joiner	„		1	7½
Machinist	„		1	8½
Mason (Banker)	„		1	7½
„ (Fixer)	„		1	8½
Plumber	„		1	7½
Painter	„		1	7½
Paperhanger	„		1	9½
Glazier	„		1	7½
Slater	„		1	7½
Scaffolder	„		1	3½
Timberman	„		1	3½
Navvy	„		1	2¾
General Labourer	„		1	2¾
Lorryman	„		1	5
Crane Driver	„		1	6½
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2" Broken Brick	„		9	6
¾" „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, Add	„	2	0	0
„ Other Colours	„	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" „ „ „	„		1	11
3" „ „ „	„		2	2
4" „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ Sawn templates	„	7	6
„ Paving, 2"	F.S.	1	8
„ „ 3"	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	„	26	0	0
20" × 10" Countesses	„	19	5	0
18" × 10" Viscountesses	„	15	17	6
18" × 9" Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
„ green „	„	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾"	Sq.		19	0
„ ⅞"	„	1	1	6
„ 1"	„	1	3	6
„ 1¼"	„	1	7	6
„ 1½"	„	1	12	0
Deal matchings, ½"	„		14	0
„ ⅝"	„		15	6
„ 1"	„	1	4	0
Rough boarding ¾"	„		16	0
„ 1"	„		18	0
„ 1¼"	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2′–14′ long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3"–11½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ¼"	„	8	6
„ „ ⅜"	„	8	3
„ „ ½"	„	8	0
„ „ ⅝"	„	7	6
„ „ ¾"	„	7	6
„ „ 1"	„	7	6
„ „ 1¼"	„	7	6
„ „ 1½"	„	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9" offsets	„	4	0	6	3
Plinth bends, 4½" to 6"	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					3½
„ „ 26 oz. „ „ „	„					4½
Arctic glass, white	„					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„					6½
⅛" Hartley's rough rolled	„					7
¼" „ wired cast	„					10
¼" Georgian wired cast	„					11
¼" Polished plate, n/e 1 ft.	„	†	7½	to	‡1	0
„ „ 2	„	†	10	„	‡1	3½
„ „ 3	„	†1	4½	„	‡1	10
„ „ 4	„	†1	11	„	‡2	4
„ „ 6	„	†2	3	„	‡2	7½
„ „ 8	„	†2	5	„	‡3	0½
„ „ 12	„	†2	10	„	‡3	3½
„ „ 20	„	†3	3½	„	†3	9
„ „ 45	„	†3	6½	„	‡4	0½
„ „ 65	„	†3	11½	„	‡4	4
„ „ 90	„	†4	4	„	‡4	9
„ „ 100	„	†4	6	„	‡4	11
Vita glass, sheet, n/e 1 ft.	„				1	0
„ „ „ 2	„				1	3
„ „ „ over 2	„				1	9
„ „ plate, n/e 1 ft.	„				1	6
„ „ „ 2	„				3	0
„ „ „ 5	„				4	0
„ „ „ 7	„				5	0
„ „ „ 15	„				6	0
„ „ „ over 15	„				7	6
Putty, linseed oil	lb.					3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12″ deep and cart away	Y.S.		3	0
" to reduce levels n/e 5′ 0″ deep and cart away	Y.C.		9	0
" to form basement n/e 5′ 0″ deep and cart away	"		9	6
" " 10′ 0″ deep and cart away	"		10	0
" " 15′ 0″ deep and cart away	"		10	6
If in stiff clay . . . add	"		3	0
If in underpinning . . . "	"		5	0
Digging, return, fill and ram . . . "	"		4	6
Planking and strutting to sides of excavation	F.S.		1	0
" " to pier holes	"			6
" " to trenches	"			6
" " extra, only if left in	"			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	"	1	9	6
" " " (4-2-1)	"	1	14	6
" " " underpinning	"	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4″ s.	4″ d.	6″ s.	6″ d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
" junctions	"	3	9	4	6
Gullies and gratings	"	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
" " in cement	"	32	0	0
" Stocks in cement	"	39	15	0
" Blues in cement	"	57	10	0
Extra only for circular on plan	"	2	15	0
" backing to masonry	"	1	15	0
" raising on old walls	"	2	15	0
" underpinning	"	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	"			6
" " " red brick facings and pointing	"		1	0
" " " blue brick facings and pointing	"		1	6
" " " glazed brick facings and pointing	"		3	9
Tuck pointing	"			8
Weather pointing in cement	"			4
Slate dampcourse	"			10
Vertical dampcourse	"		1	3

ASPHALTER

		s.	d.
¾″ Horizontal dampcourse	Y.S.	4	6
¾″ Vertical dampcourse	"	6	9
¾″ paving or flat	"	4	0
1″ paving or flat	"	5	6
1″ × 6″ skirting	F.R.	1	0
Angle fillet	"		2
Rounded angle	"		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	"		14	6
Artificial stone and do.	"		15	3
York stone templates, fixed complete	"		13	6
" thresholds	"		16	0
" sills	"	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3″ lap, and fixing with compo nails, 20″ × 10″	Sqr.	3	10	0
Do., 18″ × 9″	"	3	7	0
Do., 24″ × 12″	"	3	17	0
Westmorland slating, laid with diminished courses	"	6	10	0
Tiling, best hand-made sand-faced, laid to a 4″ gauge, nailed every fourth course	"	3	0	0
Do., all as last, but of machine-made tiles	"	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
" to stanchions	"			8
" to staircases	"		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	"		6	0
" " roofs	"		7	3
" " trusses	"		8	6
" " partitions	"		10	6
¾″ deal sawn boarding and fixing to joists	Sqr.	1	15	6
1″ " " " "	"	1	19	6
1¼″ " " " "	"	2	5	0
¾″ × 2″ fir battening for Countess slating	"		10	6
Do. for 4″ gauge tiling	"		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
" " " 2 "	"		3	0
" " " 3 "	"		3	6
Stout herringbone strutting to 9″ joists	F.R.		1	0
1″ deal gutter boards and bearers	F.S.		1	4
1¼″ " " " " "	"		1	8
2″ deal wrought rounded roll	F.R.			9
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼″ do.	"	3	2	0
1½″ do.	"	3	11	0
1″ deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼″ do.	"		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½″ deal moulded sashes of average size	F.S.	2	3
2″ " "	"	2	6
1½″ deal-cased frames, double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1½″ heads, 1″ inside and outside linings, ½″ parting beads, and with brass-faced axle pulleys, etc., fixed complete	"	4	3
2″ " " "	"	4	6
Extra only for moulded horns	Each		9
1½″ deal four-panel square, both sides, door	F.S.	2	6
2″ " " "	"	3	0
1½″ " but moulded both sides	"	3	0
2″ " "	"	3	6
4″ × 3″ deal, rebated and moulded frames	F.R.	1	6
4½″ × 3½″ " "	"	2	0
1½″ deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1½″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	"	3	0
1½″ deal moulded wall strings	"	2	6
1½″ " outer strings	"	2	9
Ends of treads and risers housed to string	Each	2	0
3″ × 2″ deal moulded handrail	F.R.	1	6
1″ × 1″ deal balusters and housing each end	Each	2	6
1½″ × 1½″ " "	"	3	3
3″ × 3″ deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	"	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	"	1	3	0
Do. stanchions with riveted caps and bases and do.	"	1	2	0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	"		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	"	1	17	0
Do. in covering to turrets, etc.	"	2	4	0
Do. in soakers	"	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	"			3½
Close " "	"			4½

		½″ s. d.	¾″ s. d.	1″ s. d.	1¼″ s. d.	2″ s. d.	4″ s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	"	7	9	1 0	1 3	2 0	—
Boiler screws and unions	"	3 6	4 0	5 6	8 0	—	—
Lead traps	"	—	—	—	7 6	10 6	—
Screw down bib valves	"	7 6	10 6	12 6	—	—	—
Do. stop cocks	"	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4″ cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	"	1	6
Do. outlets	"	3	0
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	"	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	"		4	6
Lathing with sawn laths to ceilings	"		1	6
½″ screeding in Portland cement and sand for tiling, wood block floor, etc.	"		2	6
Do. vertical	"		2	3
Rough render on walls	"		1	9
Render, float and set in lime and hair	"		2	6
Render and set in Sirapite	"		2	9
Render, backing in cement and sand, and set in Keene's cement	"		4	0
Extra, only if on lathing	"			9
Keene's cement, angle and arris	F.R.			8
Arris	"			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1″ girth	"			2
1″ granolithic pavings	Y.S.		4	6
1½″ "	"		6	0
6″ × 6″ white glazed wall tiling and fixing on prepared screed	"		18	0
9″ × 3″ " " " "	"	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

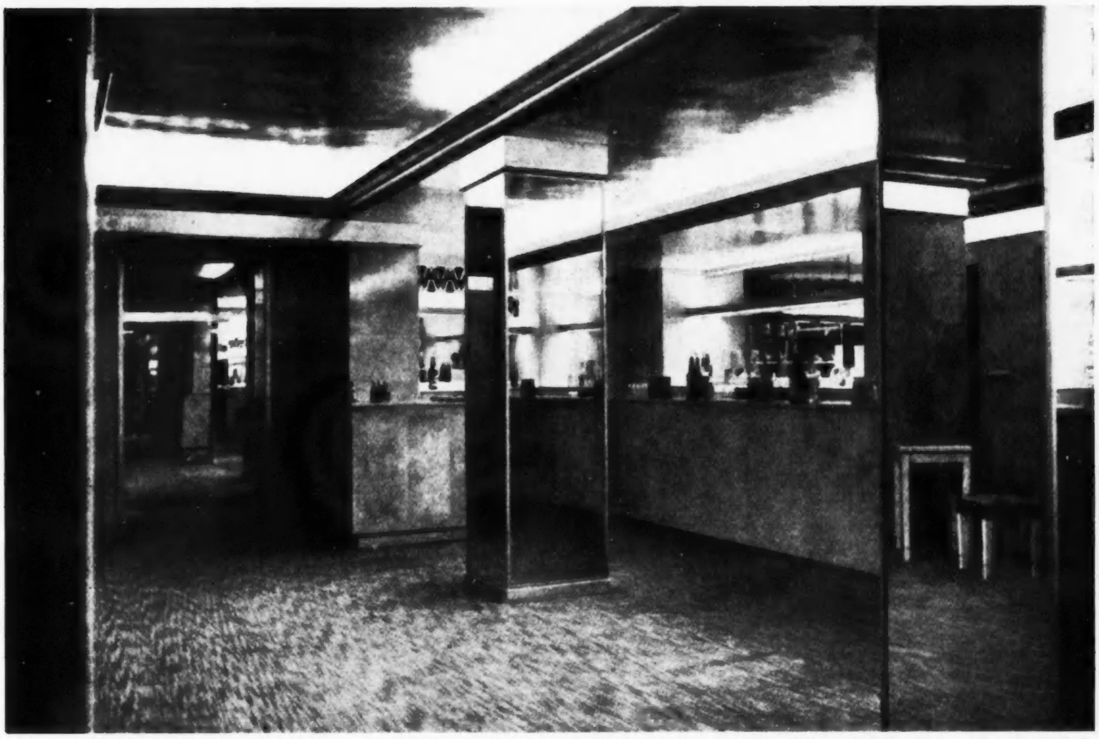
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	"		10½
Arctic glass and glazing with putty	"	1	1
Cathedral glass and do.	"	1	2
Glazing only, British polished plate	"		7
Extra, only if in beads	"		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	"		9
Do. with washable distemper	"	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3	3
Do. on woodwork	"	3	6
Do. on steelwork	"	3	0
Do. and brush grain and twice varnish	"	5	6
Stain and twice varnish woodwork	"	1	11
Stain and wax-polish woodwork	"	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	"	2	9

NEW BAR IN A LONDON THEATRE

HIS MAJESTY'S : : MICHAEL ROSENAUER, ARCHITECT

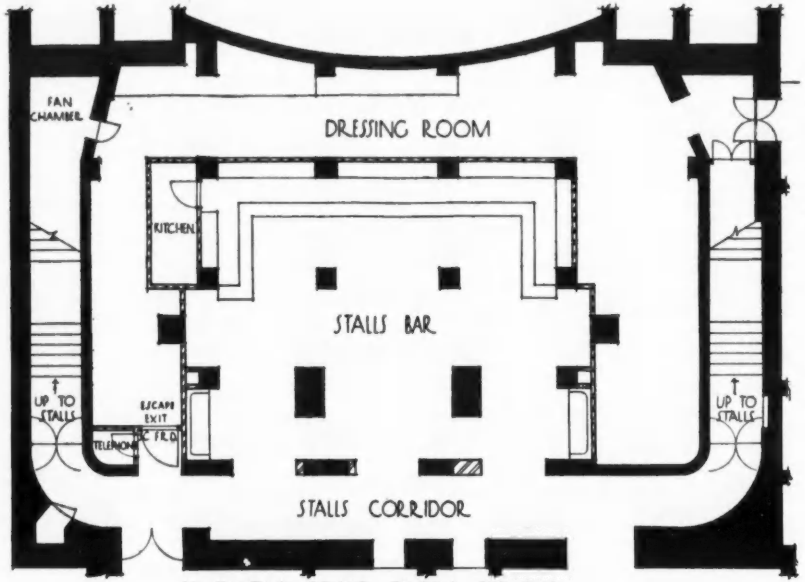


THE BAR AND ITS COUNTER, SEEN BETWEEN THE MIRROR-CLAD PIERS

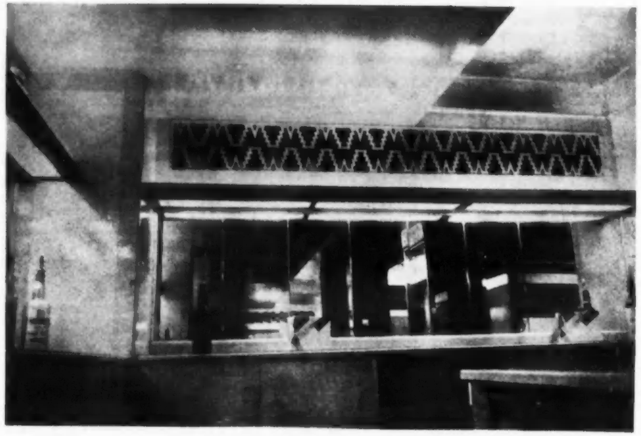
IN forming this new stalls bar in a basement space at His Majesty's Theatre, its apparent size has been increased by the use of mirrors, of French peach glass, upon the walls and piers. Silver leaf covers the ceiling, gold lacquered on the lighting trough and the lower tier. Metal work and skirtings are gold-cellulosed. Lighting is indirect, from the trough and from a double illuminated glass shelf at the back of the bar. The wood fitments to the counter are in quartered panels of maple and sycamore. The arrangement and design of the details are indicated on the plan and elevations and the large-scale drawings reproduced overleaf.

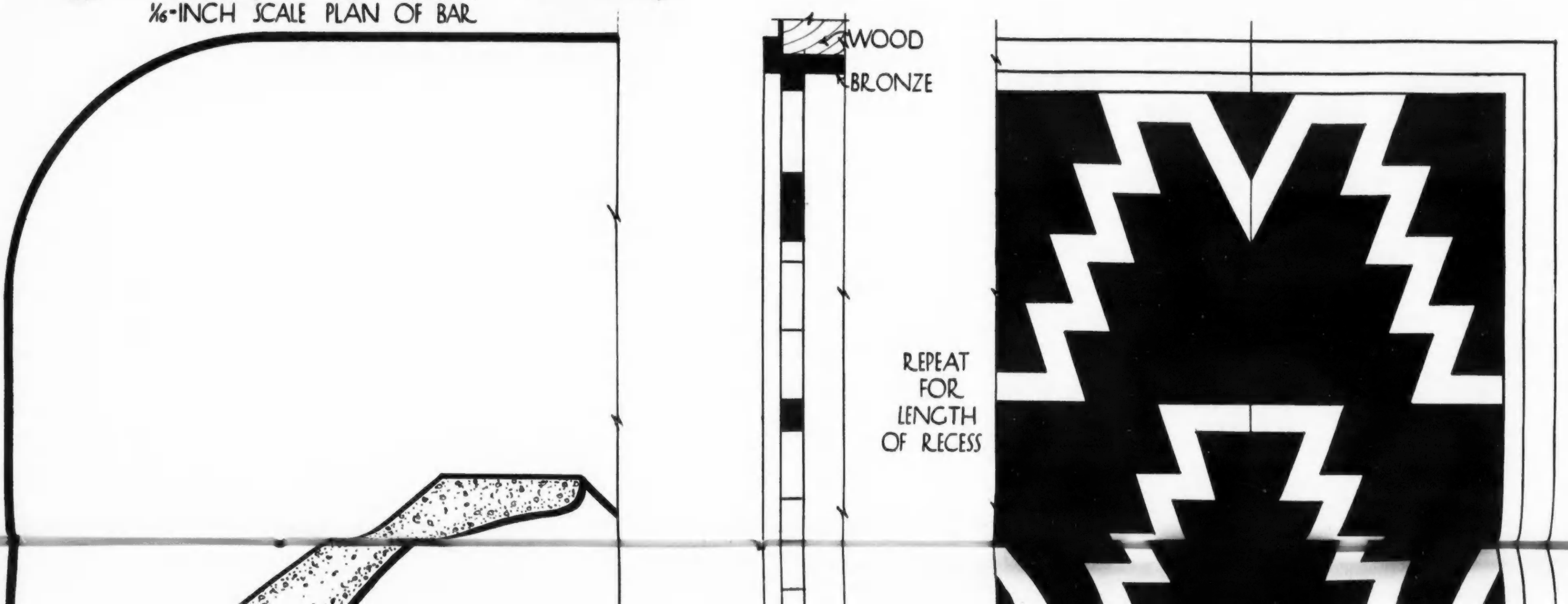
NEW STALLS BAR AT HIS MAJESTY'S THEATRE LONDON

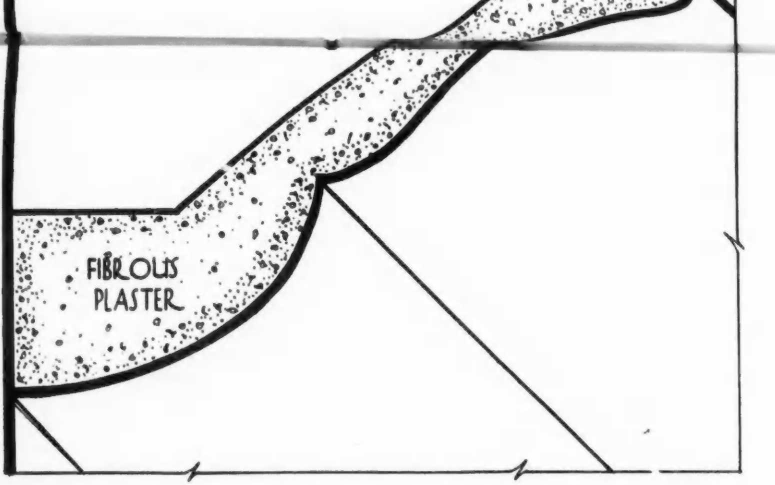
MICHAEL ROSENAUER
ARCHITECT


FAN CHAMBER
DRESSING ROOM
KITCHEN
STALLS BAR
UP TO STALLS
ESCAPE EXIT
TELEPHONE
SC FR.D.
UP TO STALLS
STALLS CORRIDOR

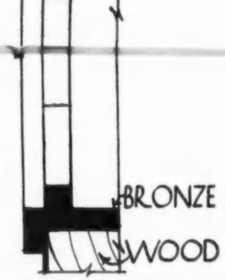
1/16-INCH SCALE PLAN OF BAR



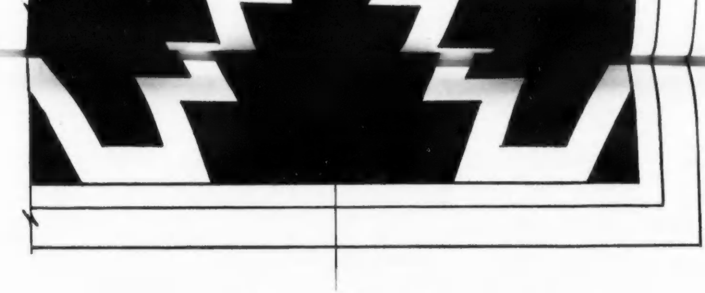

WOOD
BRONZE
REPEAT FOR LENGTH OF RECESS


FIBROUS PLASTER

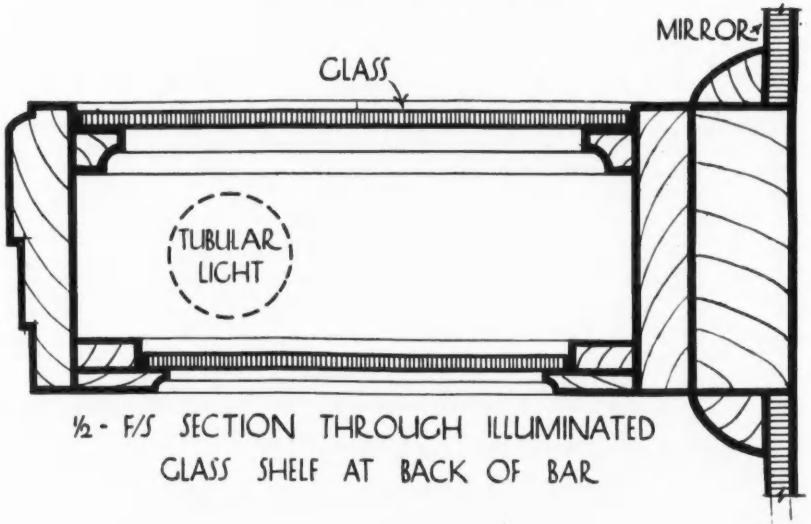
HALF FULL SIZE SECTION THROUGH LIGHTING TROUGH


BRONZE
WOOD

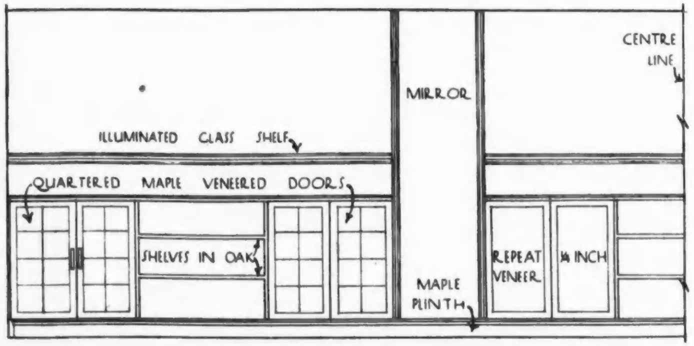
SECTION THROUGH GRILLE

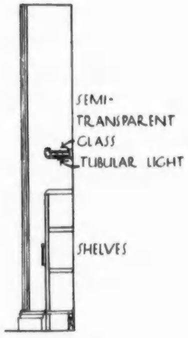


HALF FULL SIZE DETAIL OF BRONZE GRILLE IN SIDE WALLS OF BAR

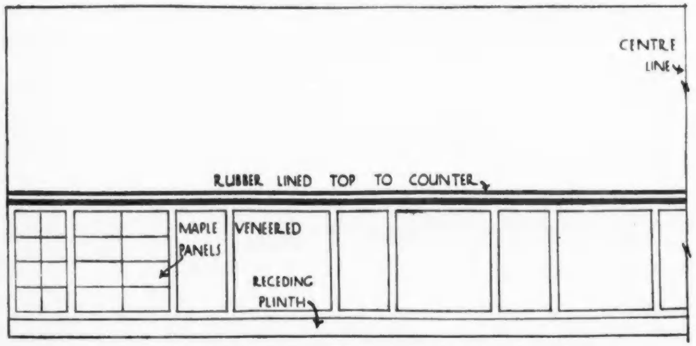

MIRROR
GLASS
TUBULAR LIGHT

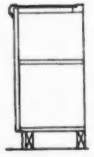
½ - F/S SECTION THROUGH ILLUMINATED GLASS SHELF AT BACK OF BAR


CENTRE LINE
MIRROR
ILLUMINATED GLASS SHELF
QUARTERED MAPLE VENEERED DOORS
SHELVES IN OAK
REPEAT VENEER
¼ INCH
MAPLE PLINTH

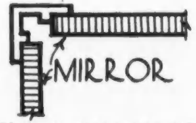

SEMI-TRANSPARENT GLASS
TUBULAR LIGHT
SHELVES

¼ - INCH SCALE ELEVATION BEHIND BAR COUNTER SECTION

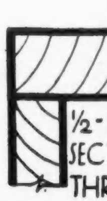

CENTRE LINE
RUBBER LINED TOP TO COUNTER
MAPLE PANELS
VENEERED
RECEDING PLINTH



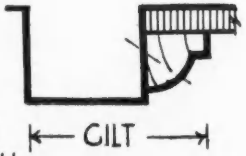
¼ - INCH SCALE ELEVATION OF BAR COUNTER SECTION



½-F/S SECTION THROUGH STANDARD METAL MOULDING TO MIRRORED PIERS



½ - F/S SECTION THROUGH MOULDING AT JUNCTION OF FRIEZE AND PANELLING

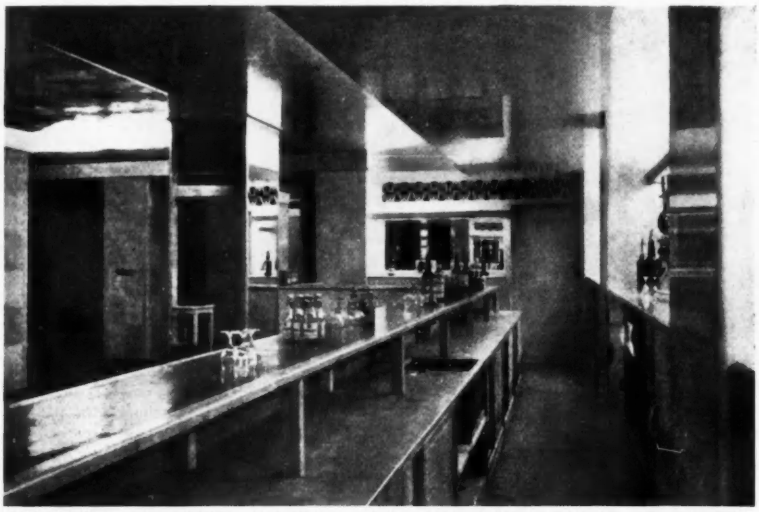


½-F/S SECTION THROUGH MOULDING TO MIRRORS ON WALL

KEY TO ⅙-INCH SCALE PLAN OF BAR

■ EXISTING WALLS

▨ NEW WALLS



WOODEN FITTINGS BEHIND THE RUBBER-TOPPED COUNTER

RESTAURANTS.

Seating area required per person
for the "grille" or "a la carte" type.- 10, 12 to 16 sq ft.
for the "table d'hote" type.- 7, 8 to 10 sq ft.

kitchen proper (excluding stores, pantries) requires to be equal to 35% to 50% of the dining area.

A dining room of 5000 sq. ft. requires approx. 4000 sq. feet service area & should seat from 350 – 450 persons

LUNCHROOM TYPE.

Seating area required per person.- 10-12 sq. ft.
including kitchen & all service space :- 15.- 28 sq. ft.

kitchen proper (excluding stores, pantries etc.) requires to be equal to 30% of the dining area.

a space 60'0" × 14'0" will allow a counter but no tables.

a space 60'0" × 18'0" will allow a counter & one row of tables.

CAFETERIAS.

area required per person . . . 8, 10 to 12 sq. ft.
including all counter and service space . . . 15. to 18 sq. ft.
kitchen proper (excluding stores, pantries etc.) requires to be equal to 30% to 35% of dining area.
a seating area of 3500 sq. ft. requires 3000 sq. ft. of service area.

TABLES.	height of table			30"
	size of table :	for 2 persons	2'0" diam.	2'3" × 2'3"
		for 4 persons	2'10" diam.	2'10" × 2'10"
		for 6 persons	4'0" diam.	5'0" × 3'0"
	for seats at long tables or counter, c. to c.			30"
	widths of tables :	seats one side only		20"
		seats on both sides		27"
CHAIRS.	height of seat			18"
	height of back			36"
	size of seat			16" × 17"
AISLES.	minimum width if used for service			36"
	space between chairs back to back if not used as an aisle			18"
LUNCH COUNTERS.	counter width			20" - 30"
	height from floor	high type		36" - 42"
		low type		30"
	height from service floor	both types		36" - 42"
	overhang of counter			8"-10"
STOOLS.	height of seat			12" below counter top
	height of seat from footrail			16"-17"
	stools at counter spaced c. to c.			24" - 30"
	diam of seat			12"-14"

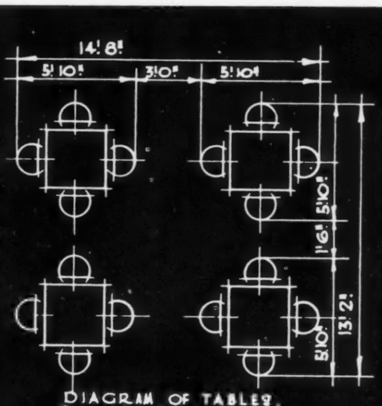


DIAGRAM OF TABLES. SQUARE ARRANGEMENT

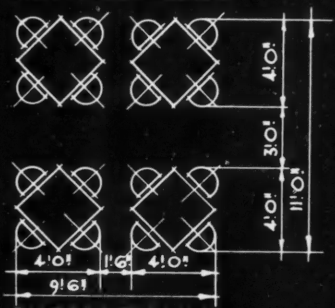
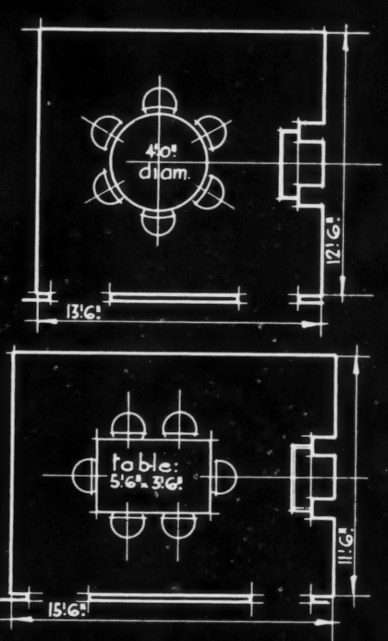


DIAGRAM OF TABLES DIAGONAL ARRANGEMENT



MINIMUM SIZES OF DINING ROOMS TO SEAT 6 PERSONS

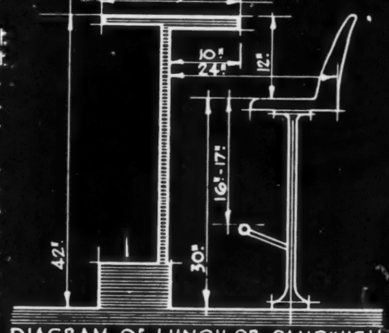


DIAGRAM OF LUNCH OR SANDWICH COUNTER AND STOOL. (HIGH TYPE).

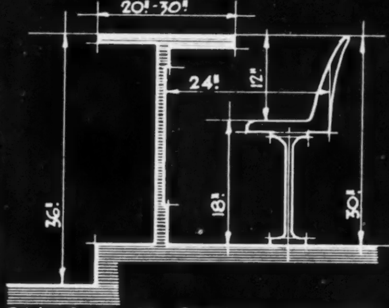
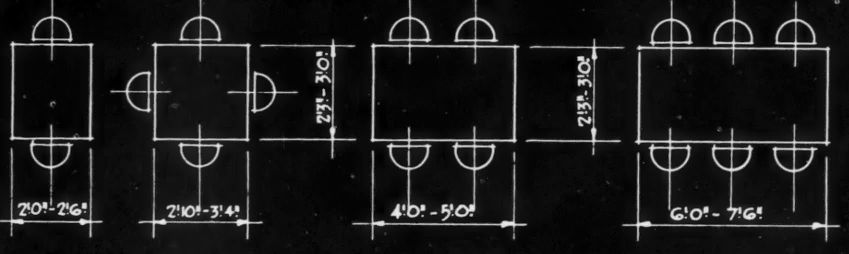
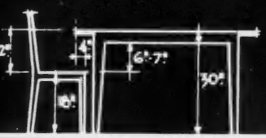


DIAGRAM OF DINING COUNTER AND STOOL. (LOW TYPE.).

SIZES OF VARIOUS TABLES.





AVERAGE HEIGHTS FOR TABLES AND CHAIRS

INFORMATION SHEET: RESTAURANT SEATING, AREAS ETC.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 2 •

RESTAURANT SEATING

•

THE first Sheet in this series, published with last week's issue, dealt with plumbing fixtures. There are others to follow on the same subject, but in order to give readers an early indication of the far-reaching scope of these Information Sheets, we turn now to another field, selecting one of several, relating to seating accommodation.

The story of how these drawings—in themselves exemplars of the draughtsman's art—came into existence in the office of Sir John Burnet, Tait and Lorne, and of how, far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, was told in editorial terms last week.

The very fact that these Information Sheets, of a type in common use in America and Germany, are new to us here points the moral of Mr. Howard Robertson's article in our New Year issue, urging the need for architects in this country to rationalize the activities in their own offices.

No one can avoid being impressed by the vital character of the information conveyed by these graphic and tabular means in the minimum of space with the maximum of clarity: they give, at a glance, just those very details which, though known to have been received some time or other, will usually take hours of search to unearth. Needless to say, their value depends on their being up to date.

It is arguable that one reason why, in the past, it has not been easy to collate such statistics, has been the reluctance of manufacturers in this country to perceive the advantages to them of standardizing the size and style of their catalogues and lists of goods, and the loose sheets by which, from time to time they are revised, so as to reduce the architect's problems in compiling a reference library. Standardization in this respect has long been adopted in other countries.

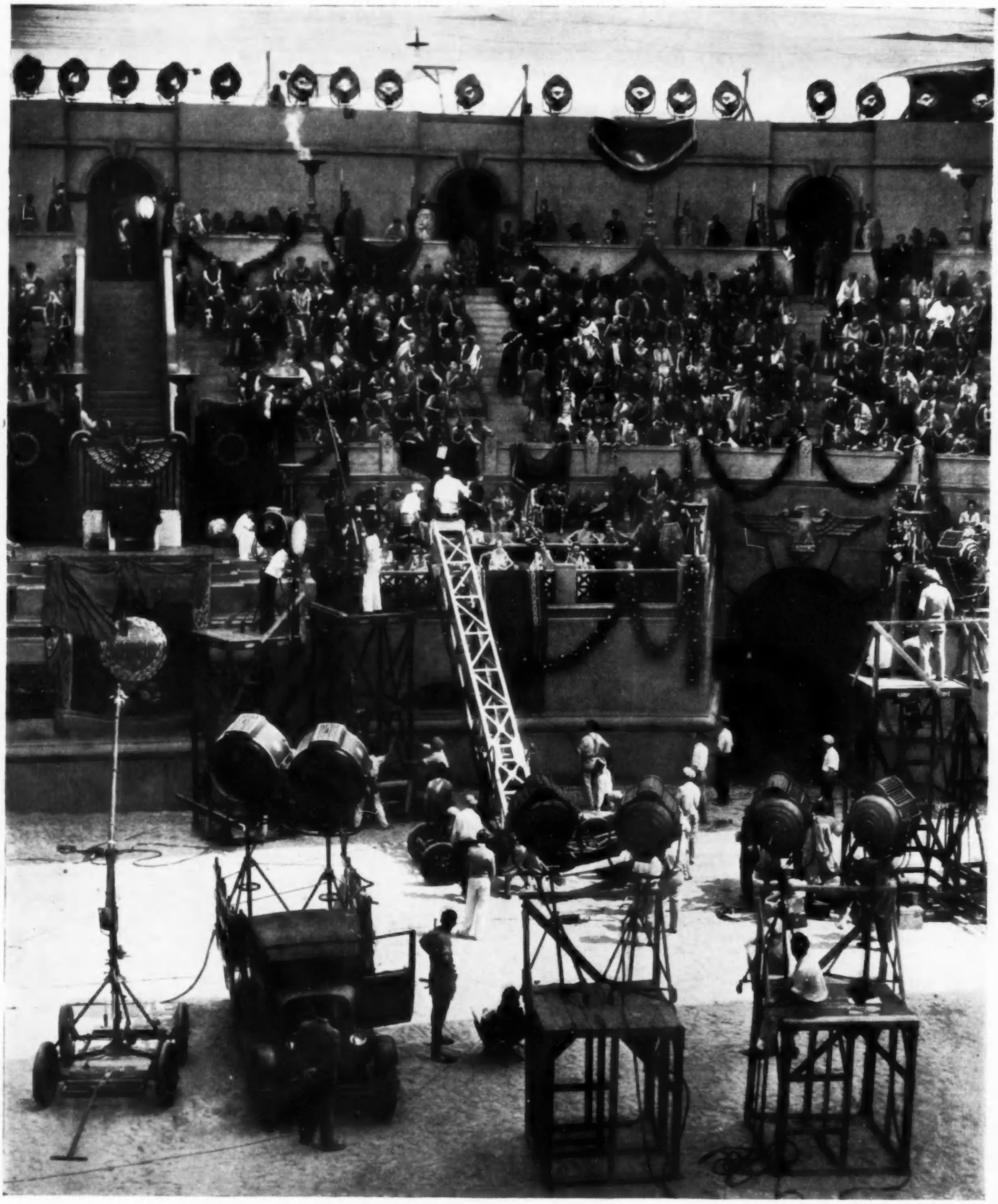
It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

CARLTON HOUSE TERRACE

DEFENCE COMMITTEE CHAIRMEN

THE Rt. Hon. Sir Arthur Steel-Maitland, M.P., and Mr. J. C. Squire, the Chairman and Vice-Chairman of the Carlton House Terrace Defence Committee, a meeting of which is to be held at Caxton Hall, Westminster, S.W., tomorrow, February 2, at 5.30 p.m. Over three hundred eminent men and women have joined the committee ; their names are given on page 172 of this issue. The meeting has been called for the purpose of appointing a small executive committee. Anyone interested in the fate of the Terrace is invited to attend.

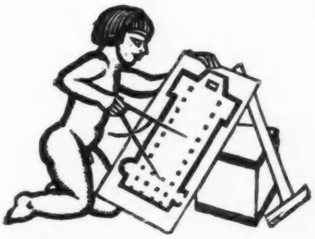


ANCIENT ROME IN HOLLYWOOD

On Monday last, at the Carlton Theatre, London, the Paramount film, " The Sign of the Cross," was shown for the first time in Europe. This spectacle of pagan Rome in the days of Nero was produced on a gigantic scale. Practically the entire Paramount studios, covering many acres of land near Hollywood, were converted into a replica of the Imperial City.

The above photograph, taken during the shooting of scenes in the Roman Circus, shows the famous director, Cecil De Mille, in the saddle at the top of an extensible ladder. He had built a section of the stadium, large enough to seat his 7,500 supers, as well as the entire arena of 90,000 square feet. The streets, public squares and palaces, modelled upon the researches of several hundreds of years of excavations, took many months to build; they were destroyed by fire in ten minutes for the purpose of realistically depicting the burning of Rome.

The art director, Mitchell H. Leisen, sketched the whole of the sets, and no doubt it was worked out by the many architects whose services American film companies are always careful to retain. The English film world is not yet alive to the value of architects, but the day will soon come for the architects of this country to obtain a real footing in the film industry, with immense advantage to the film.



UNDERCONSUMPTION

"O WHAT a world to live in," says the song. What a world, indeed ! There is a grim irony in the thought that while millions of our countrymen suffer the doubtful pleasures of semi-starvation the chief evil the world is said to be suffering from should be called Overproduction.

Overproduction, we are told, means that more goods are produced than we can afford to consume. Now the producer cannot afford to manufacture goods without selling them. He is therefore forced to produce fewer goods, and in order to produce fewer goods he employs fewer men. Men are thus thrown out of work, and as each man thrown out of work involves an equivalent loss of buying, or consuming, power, the producer again has to reduce his output, which throws still further men out of work.

The world is experiencing the fruits of this process at the present time. In the three chief producing nations there are today twenty million unemployed. Every employed person is horrified at the plight of these unlucky people. How the process is to be reversed is the study of politicians, economists and business men.

It is here that the technocrats step in. [We use the term to cover the thoughtful economists who put forward the technological argument before technocracy was heard of, for, according to *The Daily Express*, technocracy proper is temporarily under a cloud owing to the expulsion of its prophet from Columbia University. This, however, does not affect its main conclusions.]

Before the industrial revolution, say the technocrats, society was almost entirely dependent upon human labour for the satisfaction of its needs ; today machines are being built which have anything up to nine million times the output capacity of the average human being working an eight-hour day. The old-fashioned brick-maker, for instance, never made more than an average of 450 bricks a day, yet a modern brick plant can produce 400,000 bricks a day per employee.

By the use of such figures, the technocrats show that, were production in the United States to regain its height of boom output, not more than 55 per cent. of the present unemployed would be reabsorbed into industry, and that, with the development of machine production, the physical wants of the world may be provided by fewer men than are at present employed. The more the world prospers the more widespread unemployment will be.

This is not a new thought. Over a hundred years ago the Luddites were saying the same thing, and their solution—to smash the machines—is, in effect, one which certain schools of thought advocate today. Most sensible people feel that it is a stupid solution, but at the same time if we do not smash the machines we are faced with this appalling problem of unemployment.

The fallacy, of course, lies in regarding unemployment as a disaster. The Luddites naturally saw it in this light because they knew that if they were thrown out of work they would starve, and so they saw the machine taking their livelihood away from them. But what they really wanted was not *work* but *pay*. In the future we shall have to revise our habit of thinking of pay in terms of work. Having got the machines to do the work for us, it is no good sitting back and wistfully starving to death just because we cannot think how to get paid for not working. Clearly a system must be evolved by which we reimburse ourselves handsomely for doing practically nothing. Unemployment is, in fact, not a tragedy but a triumph —the greatest triumph man has achieved, provided he can learn to profit—in every sense of the word—from his leisure. It was no doubt with these thoughts in the back of his mind that the Prince of Wales, when he broadcast, by wireless, an appeal for voluntary work in aid of the unemployed, said recently that the question of how to teach workless people to use their leisure was possibly the most vital problem of the age. And no doubt Mr. S. P. B. Mais's S.O.S. talks on the wireless will bear the same interpretation. To adapt a phrase from Mr. Wyatt's telling letter on page 171, the unemployed may be regarded as the shock troops of a new epoch.

It may seem paradoxical to lead up to a plea for more work by arguing that unemployment is the highest good ; but that is exactly what we intend to do, and for a sufficiently obvious reason. The long-term view may show us that the phenomenon now called unemployment will eventually be regarded as leisure ; nevertheless, while it remains a symptom of depression and not a product of prosperity, while it contributes to Overproduction (or, more correctly, to Underconsumption) it is indeed a disaster.

In the Building Industry it is our manifest duty—for the sake of the country and for the sake of the unemployed—to get work started again. We hope our readers have noticed that in the past few days all the principal daily papers have taken up the *Build Now* campaign—a building revival is the Industry's only real answer to its unemployed.

Therefore, we say, it is simply a matter of common sense to support the committee which has been formed to fight for more building. The Public Relations Committee of the Building Industry has started its work well and is already producing results. If any member of the Industry wishes to help his country, to help the unemployed, and at the same time to have the selfish pleasure of helping himself, let him contribute as generously as he can to its funds.

NEWS & TOPICS

●

OXFORD COMATOSE

PROFESSOR J. Arthur Thompson, addressing Oxford architects at the second annual dinner of the Doric Architectural Club, suggested that Oxford should interest itself in the development of some scheme for the training of architects.

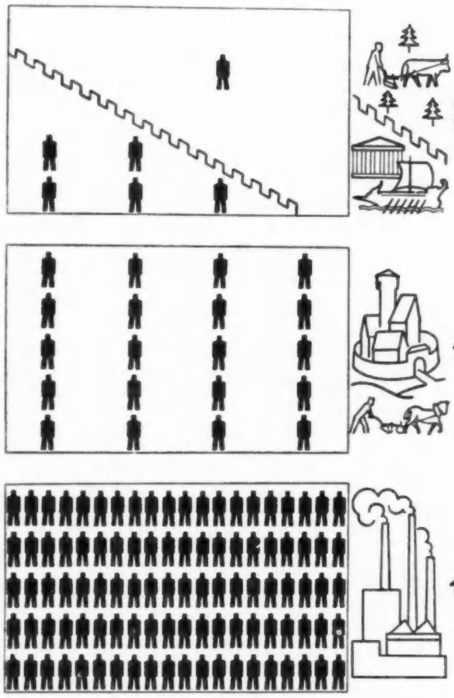
*

It seems barely believable to me that Oxford, the depository of so much fine architectural achievement of the past, should be so barren of promise or interest today, and that, an instrument for fitting men and women to take a directing share of the world's affairs, it should so completely fail to make them aware of so humanizing and civilizing an art as architecture.

*

Perhaps, with Mr. C. H. B. Quennell, we may blame the school certificates for sending so many children blinded to the sense of creation to Oxford and the world. I hold English education responsible, through its examination bias, for a great deal of ugliness in life. Yet so far as architecture and the two universities are concerned, there must be something in the fact that Cambridge, with its school and theatre, is a centre of life and quite brilliant architectural achievement, and Oxford, without these, is reactionary and nearly dead.

*



An example of Dr. Neurath's picture-statistics referred to on this page. It indicates the population of Europe and phases of life and work at three periods of history. Each figure represents 5 million men, and the area of Europe is given as 11 million square kilometres.

Walter Goodesmith, A.T.C.(Syd.) A.R.I.B.A., A.R.A.I.A., who has been awarded the Travelling Scholarship and Gold Medal of the Institution of Structural Engineers for 1932. The subject set in the " Portland House " competition was a concrete church, an acoustic shaped shell being the outstanding feature in the winning design. In a similar scholarship he was awarded the Silver Medal in 1930. He is to travel on the Continent to study and report upon the latest developments in concrete structures, etc. Mr. Goodesmith received his architectural and engineering training in Sydney, N.S.W., where he is also a captain of engineers (Reserve of Officers) whose specialist subject is camouflage. He has been in London since 1929. Has made literary contributions to the technical press, notably " The Evolution of Design in Steel and Concrete." (in " The Architectural Review " Special Number on Steel and Concrete, November, 1932). He is Chairman of the Atelier of London University, and Hon. Secretary of the Australian Architectural Club in London.

PICTORIAL STATISTICS

The passing visit to England of Dr. Neurath introduces a form of pictorial statistics about which I think we are likely to hear more in the near future.

*

The system of which Dr. Neurath is the inventor will probably replace in great measure the tiresome masses of figures and graphs which generally fail to tell us what their authors so much want us to know.

*

Though the idea of pictorial representation of fact is not new it has been left to Dr. Neurath so to elaborate a simple trick as to make it capable of an exact representation of a wide field of fact, and to do this with artistry.

*

We may think over the matter for a time, and when we are paid a longer visit perhaps the R.I.B.A. may be induced to use this intelligent method of educating a dull-witted public to a rosier view of the work of architects.

*

THE GENTLE ART OF LETTERING

We are strangely driven these days. Thinking upon the lovely and gentle art of lettering, I recalled how much, by talking and nagging, we turned the ordinary man to see some virtue in good Roman lettering. There has been indeed a steady improvement in this so long neglected art.

*

And yet, does the solution lie that way? Could we ever hope, in streets humming with buses and cars, in a world of cheap goods, sold by general display, to popularize a form of lettering whose very nature is a quiet repose? I think not.

*

Therefore, while we continue to curse roundly the patent vulgarity of the six-foot trade signature and every other commercial beastliness, we might teach the young to admire something with a greater capacity for usefulness than Roman lettering—say, that of the Underground.

*

THE REPROACH OF PADDINGTON

The conditions of tenants of the Church in the slums of Paddington, exposed last year by the Westminster Survey Group, have spread dismay throughout the national assembly. Action in this involved matter is difficult, but one has the feeling that if the Church does not set about removing the reproach at once, and effectively, it will be doing a smaller task for men than many a good town council.

*

It may require an Act of Parliament, it may cost much money and involve a loss to Church revenue, but it undoubtedly must be done.

*

THE RESERVATION

From a winter sale catalogue; a table cloth.

> "No. 18. Treated in the modernist manner, this delightful design is *nevertheless* in the best of taste, and being woven by hand its beauty is made the most of."

There is something really ingenuous and nice about the departmental store's reception of modernism. My respected aunt sits upon my steel furniture with just such mental reservation.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, February 1

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 1933. 10 a.m. to 6 p.m. Until March 11. *10 a.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—III." By Sir Banister Fletcher, PP.R.I.B.A. *6 p.m.*

LIGHTING SERVICE BUREAU, 2 Savoy Hill, W.C.2. "Domestic Lighting." By R. O. Ackerley. Discussion to be opened by C. Lovett Gill, F.R.I.B.A. *7 p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. At the South Wales Institute of Engineers, Park Place, Cardiff. "Bridges in India." By Captain R. D. Heseltine. *7.15 p.m.*

ARCHITECTURAL ASSOCIATION, 34 Bedford Square, W.C.1. Exhibition of work illustrative of the special features of the course of training at the Association. 10 a.m. to 8 p.m. until February 24. *10 a.m.*

ST. PAUL'S ECCLESIOLOGICAL SOCIETY: Commemoration Service in the Crypt of St. Paul's, followed by the annual general meeting. *6 p.m.*

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "Architecture and the Classics." By William Walcot, F.R.I.B.A. *6 p.m.*

Thursday, February 2

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 Lincoln's Inn Fields, W.C. "Spoiling England." By E. Guy Dawber, A.R.A., PP.R.I.B.A. *7.0 p.m.*

CARLTON HOUSE DEFENCE COMMITTEE. At the *Caxton Hall, Caxton Street, Westminster, S.W.1.* Meeting of the Committee. *5.30 p.m.*

Saturday, February 4

Sunrise 7.25 a.m. Sunset 4.54 p.m.

INSTITUTION OF CIVIL ENGINEERS. Afternoon visit to the National Physical Laboratory, Teddington.

Monday, February 6

R.I.B.A., 9 Conduit Street, W.1. Musical evening, arranged by the Social Committee. Also exhibition of photographs of monuments of Islamic architecture in Persia. Until February 25.

OTHER NEWS ITEMS

WATERLOO BRIDGE

"His Majesty's Government have come to the conclusion that there is no alternative but to proceed to recondition the existing bridge (at an estimated cost of £685,000), and to suggest that the question of the design to be adopted for corbelling out the bridge should be referred to the Royal Fine Art Commission for their advice." The decision of the Government, conveyed in a letter from the Ministry of Transport to the L.C.C., and read by Sir Percy Simmons at a meeting of the latter body last week, has been received with much satisfaction by those who have for long advocated the retention of Rennie's Bridge. The Minister further states the he "would be prepared to make a grant of 60 per cent. of the approved cost of reconditioning the bridge."

POINTS FROM THIS ISSUE

Unemployment is not a tragedy but a triumph *161*
Smelly factories destroy the amenities of a district *164*
Five hundred gallons of milk strewn with rose petals were used for the Empress's real Roman bath in the new film, "The Sign of the Cross" *168*
There is a tendency to view the unemployment question from a maudlin and sentimental standpoint *171*
"The R.I.B.A. are about to contribute £20,000 to the Chancellor of the Exchequer" *182*

The proposal and offer made by the Government will be considered at the meeting of the Improvements Committee of the L.C.C. to be held today, February 1. It is generally believed that the offer will be accepted, with, perhaps, some minor adjustments.

* * *

On the same day as the Government announced their decision, Lt.-Colonel J. Benskin, O.B.E., read a paper before the Royal Society of Arts on "The Bridges of London—Past, Present and Future." Discussing Waterloo Bridge, he said he came upon an interesting passage in Westall and Owen's *Picturesque Tour of the Thames*. It faces the aquatint of Waterloo Bridge and reads: "The plan for this Bridge was furnished by the late unfortunate Mr. George Dodd; but the late John Rennie, Esq., had the merit of executing the undertaking." He believed that there was a lesson to be learned from that slight slice of history. One could not help wondering if just a small proportion of the adulation which in recent years had been bestowed on Rennie might not have been spared for the unfortunate Dodd. He believed that the brothers Westall, and they were artists, would have given him a share.

CANADIAN TIMBER TRADE

The timber trade between England and Canada should benefit considerably by the visit to this country of Mr. Fensom, who has come on a special mission from the Canadian Hardwood Bureau, which works in close connection with the Ottawa Forest Products Research Laboratory. Mr. Fensom hopes to remove certain difficulties in the trade by ascertaining the actual requirements of the United Kingdom timber merchants in quality, size and marketing, and by extending a knowledge of Canadian resources.

REBUILD BRITAIN!

A " Rebuild Britain " movement was suggested by Sir Enoch Hill, President of the Halifax Building Society, speaking at the National Federation of Property Owners and Ratepayers' dinner, in London on Thursday. He said :

Although a step in the right direction has been taken by the introduction of the Housing Bill—a measure designed to encourage private enterprise in the erection of dwelling-houses—I feel that there is ample scope for a National Building Reconstruction Scheme.

We have only to look at the gloomy slums and at the out-of-date and inefficient blocks of offices which characterize most of our towns to realize that there are many directions in which the 250,000 builders now out of work could usefully be employed. The haphazard planning of many towns, with streets so ill-suited to modern traffic that they actually impede rather than facilitate business, is in direct opposition to progress.

When I pass through some towns I feel that a few carefully-placed sticks of dynamite would materially improve matters—they would ensure, at all events, some change.

What we need today is a movement to ' Rebuild Britain '—to make a clean sweep of all these unhygienic houses, makeshift offices and haphazard streets. Let us gather the finest brains in the building world—the architects, woodworkers, metal-workers, surveyors and builders—and let them work on broad lines, planning not for individual buildings but for towns as a whole.

This scrapping may sound drastic, but it is, after all, logical. We scrap old clothes and out-of-date or worn machinery, yet we cling to old and out-of-date buildings, condemning those who live and work in them to suffer from lack of comfort and modern amenities.

The erection of new, modern buildings would mean an increase in the real wealth of the country and value added to the land on which they are built. I do not think it impossible for the Government to be persuaded to consider this idea, and for some system of credits to be arranged to enable the scheme to be financed and carried out on national lines.

LOOKING FORWARD

On Monday, Mr. Howard Robertson, F.R.I.B.A., Principal of the Architectural Association School of Architecture, read a paper on " The Training of an Architect." The following are some of its points :—

In reviewing architectural development, I see three broad phases, which I would thus summarize :—

1 : The past, when architecture and building construction were so clearly related as to become indivisible.

2 : The period, dating from roughly the middle of the last century, marked by the development of structural engineering and the adaptation of architectural elements as a clothing to the novel structural system.

3 : The period of the present, and presumably of the future, when architectural forms become again significantly expressive of engineering structure, when the architect co-operates with the specialist technician due to the complexities of the building system.

Architectural education has echoed the results of these three phases.

All signs point to a closer linking of architecture and engineering, and in engineering I include the developing science of mechanical equipment. I foresee the architect, not as an engineer, but as a designer, increasingly aware of engineering possibilities : and the engineer not as an architect, but widening his knowledge to embrace a better understanding of building construction, and thus coming better to realize architecture and the architect's task.

Engineering and mechanical equipment, which I would group as architectural engineering, must come more closely into the curriculum. The solution from the point of view of personnel is by no means easy, but gradually, with the help of Watford and changed methods of teaching and practice, a nucleus of special teachers in this subject will be formed.

The architect must be able to put up complete schemes of plan and finance. It is no use wringing our hands. We have to create work and we will do this only by offering ideas, which must be supported by facts.

RATES OF WAGES

On Monday, February 13, the speakers in the B.B.C.'s series of weekly talks and discussions on housing will be Colonel Sir Francis Freemantle, M.D., M.P., and Mr. R. Coppock, Secretary of the National Federation of Trades Operatives. They will discuss the question of wage-rates in the Building Industry.

* * *

The revised wages scales in the Building Industry came into operation today, February 1. They are given on page 188 of this issue.

PLANLESS LONDON

Sir Raymond Unwin, speaking at a London Labour Party week-end school on Saturday last, said London was one of the biggest examples of haphazard and planless growth. " There has " he continued, " been an enormous change in the character of residential property and a very great loss and wastage of value in degeneration, brought about by the intrusion of smelly factories which destroyed the amenities of a district.

" The conditions for which our streets were originally built have been entirely changed. We are now running what are practically locomotives at the speed of locomotives up and down all our streets that were made for horses and pedestrians to go along at a reasonable and quiet pace.

" It is not right, and it was never intended, that you should turn little children, running in and out of home and school doors, on to unprotected streets along which run locomotives at any sort of speed up to thirty and forty miles an hour.

" That can only be remedied by replanning these areas, and one of the first things to do in replanning is to work out a kind of technique in street planning, by which we can separate the use of streets. Certain streets should be used for passing traffic along as quickly as possible. These streets should not be used for shops, and the public should go out on to quiet streets which would only connect with the other streets at proper intervals."

R.I.B.A.

PERSIAN ARCHITECTURE

An exhibition of enlarged photographs of monuments of Islamic architecture in Persia, made by Arthur Upham Pope, Director of the American Institute for Persian Art and Archæology, will be formally opened by the American Ambassador at the Institute on Monday next, February 6, at 3.30 p.m.

The exhibition will remain open until Saturday, February 25, between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.). Admission will be free.

SOCIAL EVENING

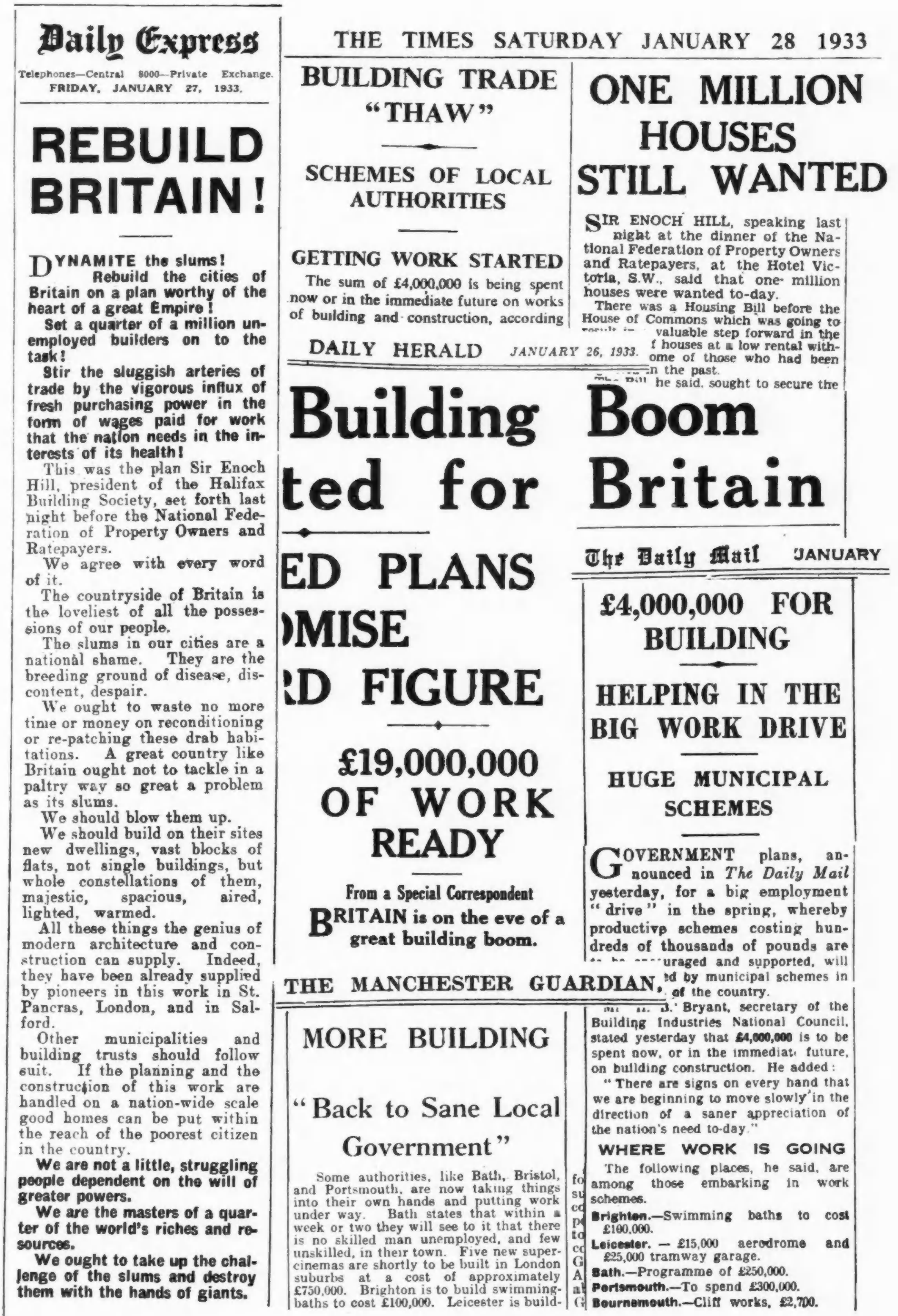
On Monday evening next, instead of the usual sessional paper, a concert, organized by the Social Committee, will be held at the Institute. The concert will commence at 8.15 p.m. and the price of admission is 2s. 6d. Tickets can only be obtained by or through members of the Institute, who should apply to the Secretary, Social Committee, 9 Conduit Street, W.1. Early application is advisable.

THE ASSOCIATESHIP

Attention is called to the decision of the Council of the Institute that, owing to the present economic depression, and notwithstanding the regulation regarding twelve months' office experience, the Associateship of the R.I.B.A. shall not be withheld through inability to obtain such office experience. The time during which this concession is effective has now been extended until January 31, 1934.

The effect of the decision is that a candidate who has been unemployed will be able to become a candidate for election as an Associate at the same time as if he had been employed.

In the case of students of recognized schools of architecture, the length of time during which students have gained experience in architect's offices or the length of time during which they have been unable to obtain employment, in connection with their school course, may both be counted as part of the twelve months' experience required.



Daily Express

Telephones—Central 8000—Private Exchange.
FRIDAY, JANUARY 27, 1933.

REBUILD BRITAIN!

DYNAMITE the slums! Rebuild the cities of Britain on a plan worthy of the heart of a great Empire!

Set a quarter of a million unemployed builders on to the task!

Stir the sluggish arteries of trade by the vigorous influx of fresh purchasing power in the form of wages paid for work that the nation needs in the interests of its health!

This was the plan Sir Enoch Hill, president of the Halifax Building Society, set forth last night before the National Federation of Property Owners and Ratepayers.

We agree with every word of it.

The countryside of Britain is the loveliest of all the possessions of our people.

The slums in our cities are a national shame. They are the breeding ground of disease, discontent, despair.

We ought to waste no more time or money on reconditioning or re-patching these drab habitations. A great country like Britain ought not to tackle in a paltry way so great a problem as its slums.

We should blow them up.

We should build on their sites new dwellings, vast blocks of flats, not single buildings, but whole constellations of them, majestic, spacious, aired, lighted, warmed.

All these things the genius of modern architecture and construction can supply. Indeed, they have been already supplied by pioneers in this work in St. Pancras, London, and in Salford.

Other municipalities and building trusts should follow suit. If the planning and the construction of this work are handled on a nation-wide scale good homes can be put within the reach of the poorest citizen in the country.

We are not a little, struggling people dependent on the will of greater powers.

We are the masters of a quarter of the world's riches and resources.

We ought to take up the challenge of the slums and destroy them with the hands of giants.

THE TIMES SATURDAY JANUARY 28 1933

BUILDING TRADE "THAW"

SCHEMES OF LOCAL AUTHORITIES

GETTING WORK STARTED

The sum of £4,000,000 is being spent now or in the immediate future on works of building and construction, according

ONE MILLION HOUSES STILL WANTED

SIR ENOCH HILL, speaking last night at the dinner of the National Federation of Property Owners and Ratepayers, at the Hotel Victoria, S.W., said that one million houses were wanted to-day.

There was a Housing Bill before the House of Commons which was going to valuable step forward in the f houses at a low rental with- ome of those who had been n the past.

he said, sought to secure the

DAILY HERALD JANUARY 26, 1933.

Building Boom ted for Britain

ED PLANS MISE D FIGURE

£19,000,000 OF WORK READY

From a Special Correspondent

BRITAIN is on the eve of a great building boom.

The Daily Mail JANUARY

£4,000,000 FOR BUILDING

HELPING IN THE BIG WORK DRIVE

HUGE MUNICIPAL SCHEMES

GOVERNMENT plans, announced in *The Daily Mail* yesterday, for a big employment "drive" in the spring, whereby productive schemes costing hundreds of thousands of pounds are uraged and supported, will d by municipal schemes in of the country.

Bryant, secretary of the Building Industries National Council, stated yesterday that £4,000,000 is to be spent now, or in the immediate future, on building construction. He added:

"There are signs on every hand that we are beginning to move slowly in the direction of a saner appreciation of the nation's need to-day."

WHERE WORK IS GOING

The following places, he said, are among those embarking in work schemes.

Brighton.—Swimming baths to cost £100,000.

Leicester. — £15,000 aerodrome and £25,000 tramway garage.

Bath.—Programme of £250,000.

Portsmouth.—To spend £300,000.

Bournemouth.—Cliff works, £2,700.

THE MANCHESTER GUARDIAN,

MORE BUILDING

"Back to Sane Local Government"

Some authorities, like Bath, Bristol, and Portsmouth, are now taking things into their own hands and putting work under way. Bath states that within a week or two they will see to it that there is no skilled man unemployed, and few unskilled, in their town. Five new super-cinemas are shortly to be built in London suburbs at a cost of approximately £750,000. Brighton is to build swimming-baths to cost £100,000. Leicester is build-

---

THE BUILDING DRIVE. Dynamite—thaw—boom—£4,000,000: such are some of the stirring terms which, during the last few days, have emerged, in the newspapers, from the verbal barrage launched to cover the assault upon the bogey, Economy—a barrage for which the Public Relations Committee of the Building Industries National Council is supplying munitions. "There is ample scope," said Sir Enoch Hill, in the speech of which a summary appears on the facing page, with extracts in the press cuttings above, "for a National Building Reconstruction Scheme."

THE HOUSING BILL

[By OUR SPECIAL CORRESPONDENT]

THIS week housing is "in the news." The Financial Resolution on the Government's Housing Bill will be considered in the House of Commons as soon as they reassemble on February 7. The B.B.C. are broadcasting a series of speeches and dialogues that are being severely criticized in some quarters, but which, at any rate, are arousing considerable interest. The presence of Sir Austen Chamberlain in the chair at the Housing Conference at the R.I.B.A. yesterday is another sign that political leaders recognize the importance of the problem.

It is advisable that the real significance of the Government's Housing Bill and its probable effects should be understood by the members of the architectural profession.

Sir Hilton Young, the Minister of Health, is not an expert on either housing or town planning. It is an open secret in Parliament that he was given his present appointment because of his financial experience, and therefore he could be of considerable assistance to the Chancellor of the Exchequer in guiding the financial policy of this country. His Bill is not one that will provide more houses. It is not, in itself, a constructive measure. As the very title shows it is a "Financial Provisions Bill."

The first clause proposes to abolish for ever the State grant offered under the Wheatley Act of 1924 and thereby brings to an end the fifteen years "gentlemen's agreement" for a housing programme. The second clause simply extends the powers given under the 1925 Act, and enables local authorities to share with the State in guaranteeing mortgages on houses intended for letting at comparatively low rents.

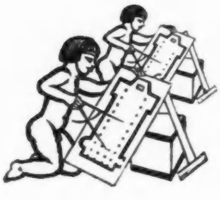
The Financial Resolution that will be considered by M.P.'s on February 7 expresses in legal language the bringing to an end of State subsidies, except those for slum clearances, and enables the Minister of Health to undertake to make contribution in certain cases towards losses sustained by authorities under guarantees given by them for facilitating the provision of houses to be let to the working classes.

The amendment to the Resolution is of special interest to architects and builders. It is to be moved by Lord Eustace Percy, M.P. for Hastings. He is one of the younger M.P.'s, who, after being President of the Board of Education in the late Conservative Government, is now out of office. He has taken a keen interest in the Building Industry. He spoke with considerable force at the International Building Congress some years ago, and his views on the need to create a Housing Corporation, independent of party politics, bear a close resemblance to those put forward by Sir Raymond Unwin to the Housing Conference. He has made no secret of his belief in the need of a substantially financed Housing Society. Accordingly, those who sat with him, when he was chairman of the Housing Sub-committee of the Private Members Economy Committee, are not at all surprised that he has given notice of an amendment to the financial resolution, so as to enable the State to contribute towards losses sustained by local authorities on a wider scale than is proposed by the Government.

Another resolution of interest to architects is to be moved by Sir Percy Harris, M.P. for Bethnal Green. There are fears felt in many quarters that, if building societies are allowed without check to finance any kind of houses, we shall see in the next few months a mushroom growth of badly designed bungalows and villas, spread out in most atrocious forms of ribbon development, and let at profiteering rents. Sir Hilton Young insisted during the debate on the second reading of the Bill that the only guarantee of housing standards would be the local authorities, and their consent is, of course, necessary for the guarantee for building society money. But is there any certainty that the Rural District Council of Marshmallows, for example, will pay any serious attention to the design of rural cottages, or to density? Accordingly, Sir Percy Harris has given notice to move a new clause which will make it obligatory upon any local authority giving a guarantee for loans advanced by a building society to specify the number and nature of the houses, the size of the rooms, the average number of houses per acre, the provision of a fixed bath, and the maximum rents to be charged.

Naturally the larger local authorities will pay strict attention to housing standards, but Sir Percy Harris and those who will vote with him consider that more safeguards are necessary. For Mr. Shakespeare, the capable Parliamentary Secretary of the Ministry of Health, let the cat out of the bag in debate when he ingenuously said: "If you are going to hand over to private enterprise, or to the great building societies, the function of building houses, and you hedge it round with all sorts of restrictions, you are defeating the very object you set out to secure."

Can the nation have it both ways? Will the building societies freely supply the capital unless they are given a free hand? On the other hand will it be really in the national interest if the expenditure of possibly £100,000,000 during the next two or three years leads to a lowering of housing standards, deterioration of the outskirts of our towns, and the desecration of the countryside? The Government will have to face these questions in the House of Commons during February, and architects will anxiously watch the outcome of the debates.



COMPETITION NEWS

Travelling Scholarship

The award of the Portland House Travelling Scholarship for 1932 was announced at a meeting of the Institution of Structural Engineers, held on Thursday last, as follows:

SCHOLARSHIP AND GOLD MEDAL: Mr. Walter M. Goodesmith, Graduate; SILVER MEDAL: Mr. D. Bethune-Williams, Graduate; BRONZE MEDAL: Mr. C. Wright, Associate Member.

The value of the scholarship, as originally established, was £300, but it was afterwards decided to divide the competition into two sections: one for £150 to be held in 1932, and the second for £150 to be held in 1933, with a different subject set. The subject set for the 1932 Scholarship was the design of a concrete church. The first part of the competition was held in September, and the finished drawings were submitted by the candidates on November 23.

The drawings will be exhibited at the Institution during the next few weeks. Details of the second part of the Scholarship will be announced shortly.

Competitions Open

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. Open to all architects, architects' assistants, and architectural students. Assessors: A. B. Knapp-Fisher, F.R.I.B.A. (President of the Architectural Association); G. Grey Wornum, F.R.I.B.A.; and Howard Robertson, F.R.I.B.A. Also, two members of the Cornish Quarry Masters' Association. First prize, £50. The design, etc., is to be sent to the Secretary of the Architectural Association, 34-36 Bedford Square, London, W.C.1, by Friday, March 24, noon. Full particulars of the competition may be obtained from the Secretary, Architectural Association, 34 Bedford Square, London, W.C.1.

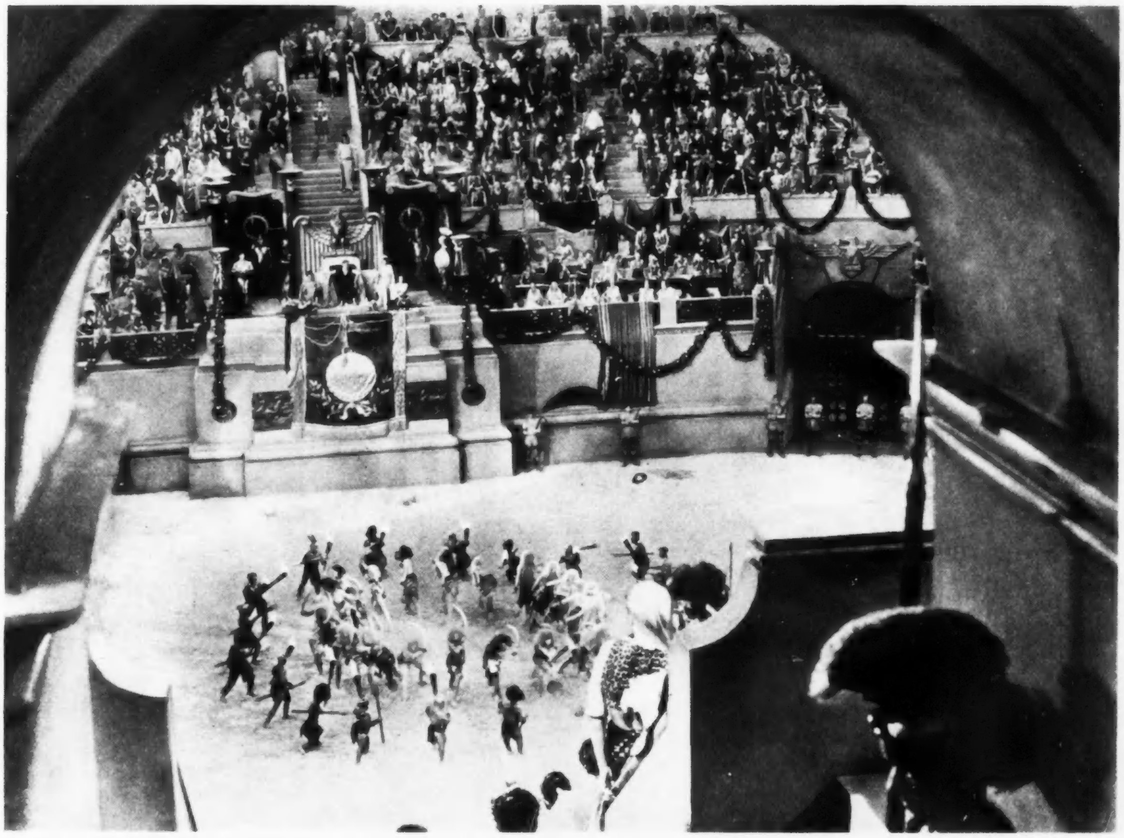
***May 31.**—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

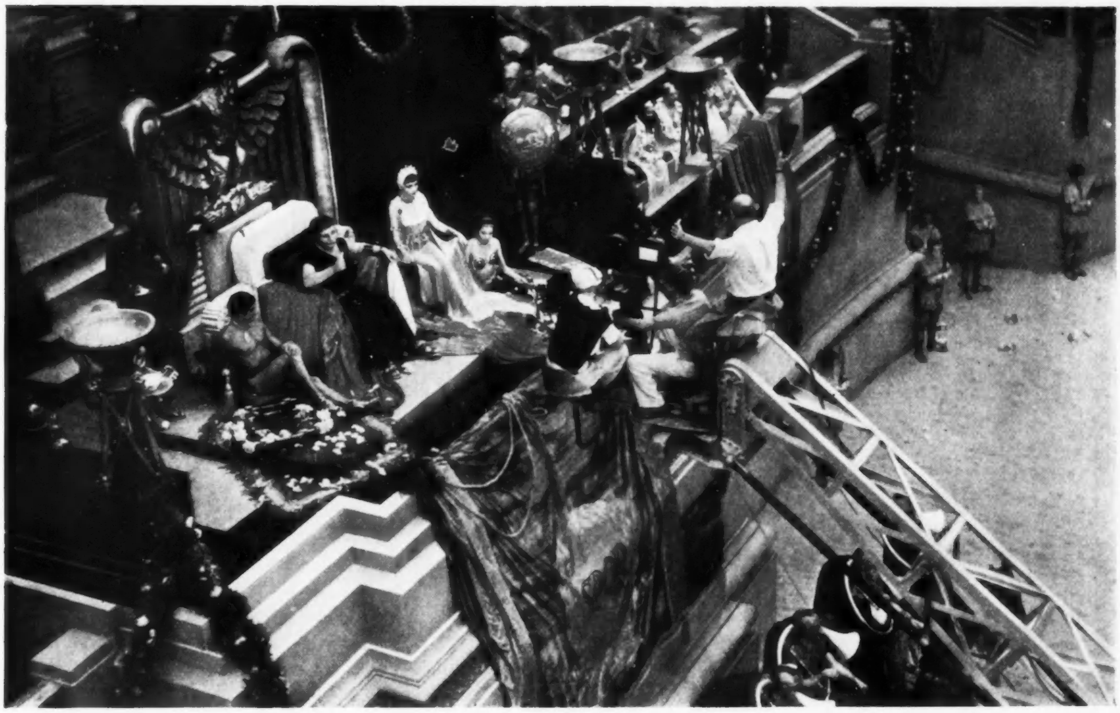
**Full Particulars of the above competition were published in our issue for December* 7, 1932.

The Humber Bridge

The Hull City Council has approved amended proposals for the construction of the Humber Bridge, estimated to cost £1,500,000.

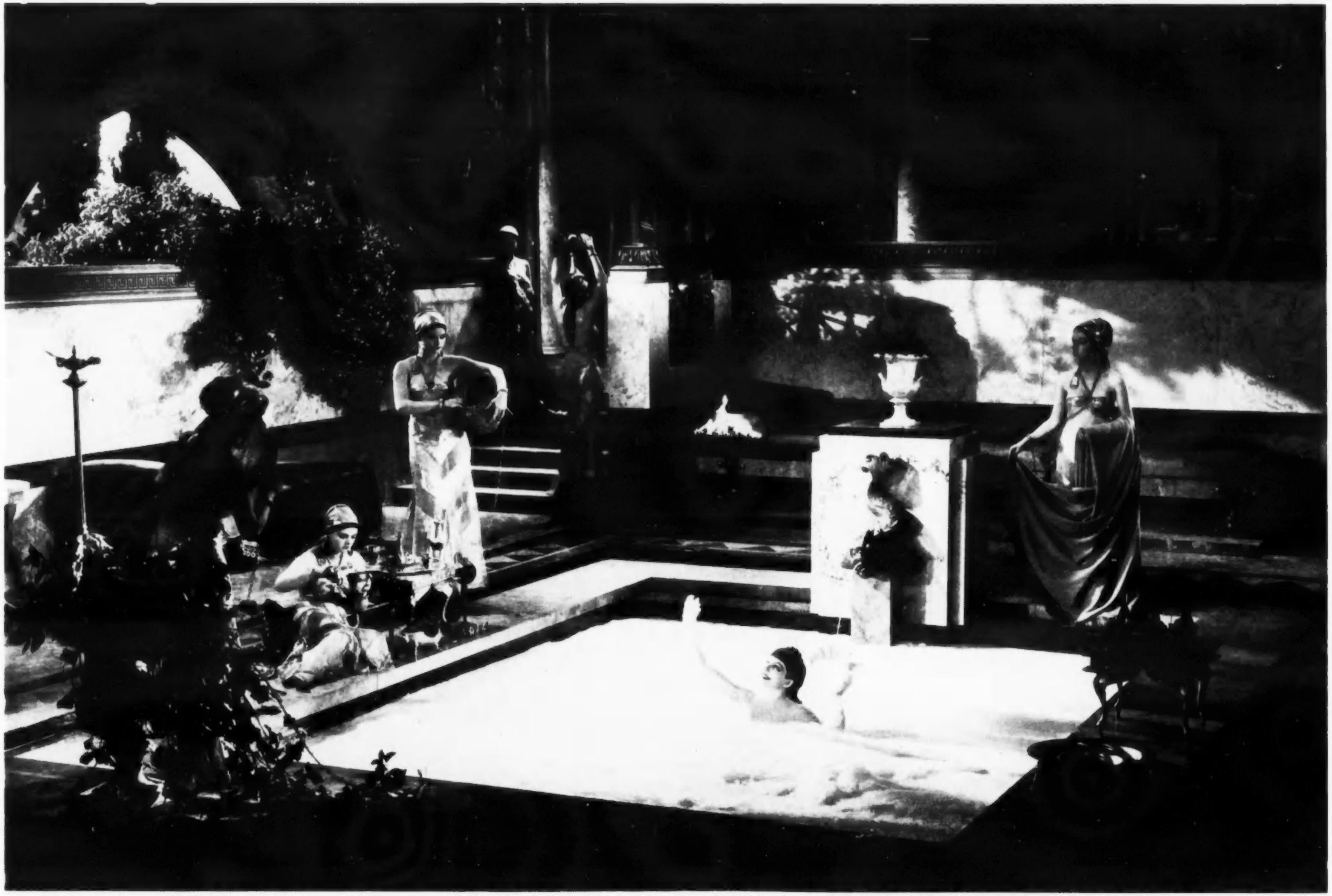
ANCIENT ROME IN HOLLYWOOD



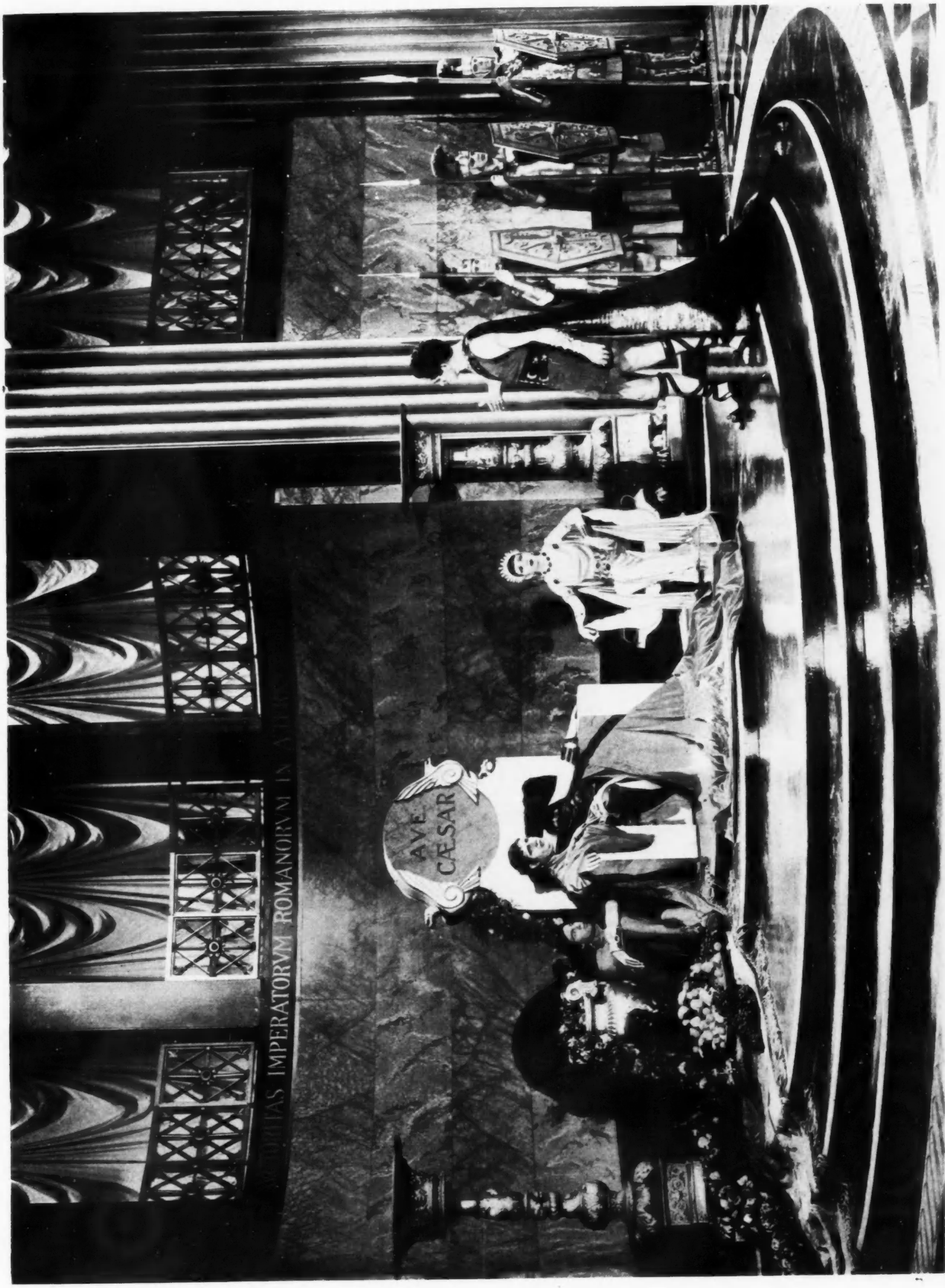


A Roman holiday! The photograph at the top of the page, a sequel to the frontispiece to this issue, depicts a fight to the death between forty women, all over six feet in height and armed with scimitars, and forty dwarfs who are carrying three-tined spears. On the throne can be seen Nero (played by the English actor, Charles Laughton). Below is a close-up view of the throne, with Cecil B. De Mille, the director, accompanied by the camera-man, giving instructions to the cast. On the following pages are reproduced further scenes from the Paramount film, " The Sign of the Cross," which was given its European première in London on Monday last.

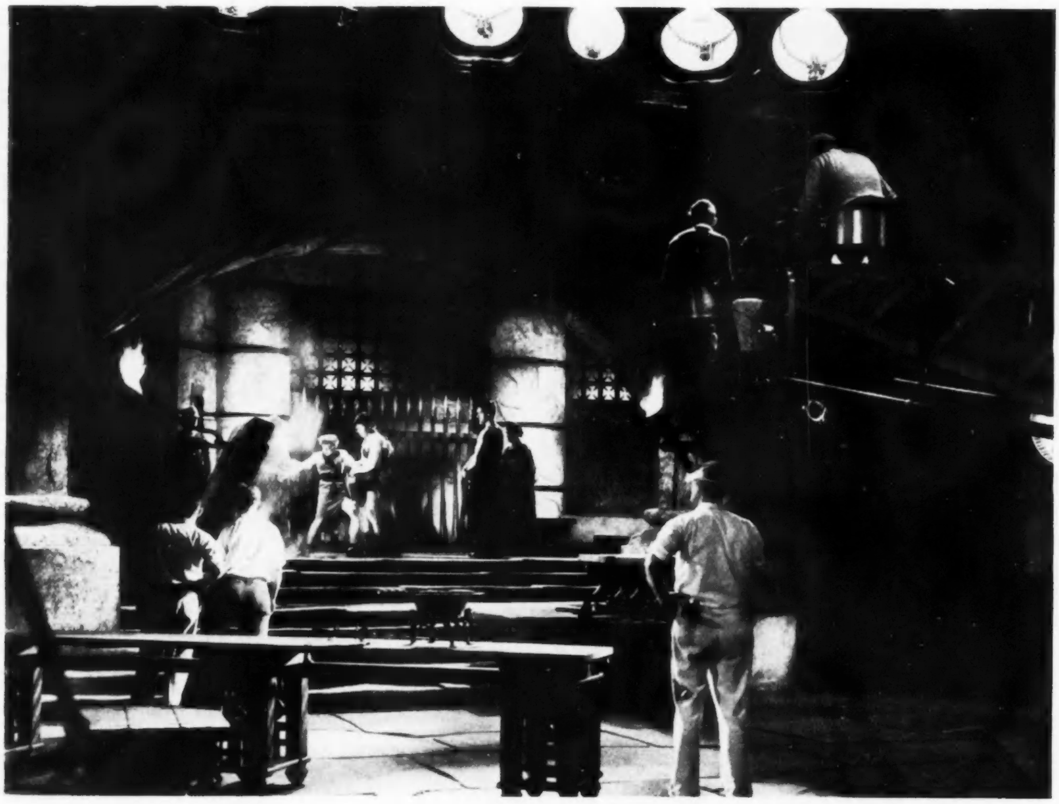
ANCIENT ROME IN HOLLYWOOD: POPPÆA'S BATH OF MILK

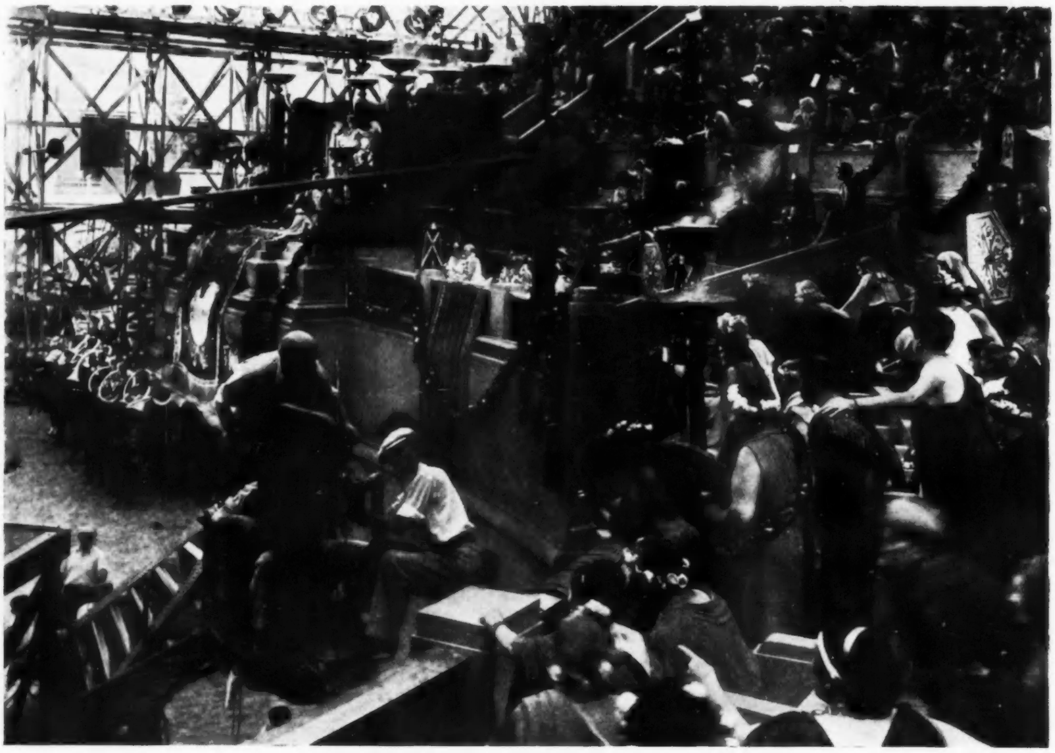


Five hundred gallons of milk, strewn with rose petals, were used for the Imperial bath of Poppæa (played by Claudette Colbert). The bath was constructed upon data unearthed during recent excavations. Approximately 15½ feet long, 7 feet wide and 5 feet deep, it was built of Roman tiles faced with marble. Milk spouts into it from a lion's head. On the facing page is reproduced the interior of Nero's Palace of Gold. Here we see the Prefect of Rome (Fredric March) pleading for the Christian girl, Mercia (Elissa Landi). On the right of Nero is the Empress Poppæa. It is interesting to note that Charles Laughton, who plays the rôle of Nero, has had his nose transformed into a Roman one by the judicious use of wax make-up. These two lavish settings again demonstrate the scope for the extensive employment of architects in our film industry.


IMPERATORVM ROMANORVM
AVE CÆSAR

ANCIENT ROME IN HOLLYWOOD





Branded by fire! Here is shown the shooting of a dungeon scene in which a Christian boy is being tortured by Roman soldiers. Note the director and camera-man up aloft on their girder-ladder on the right and the powerful arc lamps illuminating the set. Approximately 14,000 ampères were consumed by the 329 giant lamps used for lighting the arena scene; some of these can be seen in the photograph below, taken looking towards Nero's throne, with Mr. De Mille and the camera-man once more shooting a close-up from their mobile stand.

LETTERS FROM READERS

In a Land of Plenty

SIR,—As one of the unemployed, allow me to thank and congratulate you for your New Year Issue.

It is essential that the gravity of the problem of unemployment, and all that it entails, should be brought to the notice of the nation.

Unemployment to the nation is what tubercular disease is to the individual; it is gradually and insidiously eating its way into the vitals of the nation.

An Irishman once said: "People only open their eyes when their brains are bashed out." Unfortunately, that, to a large extent, is true.

I know an individual whose services were dispensed with, owing to slackness; his employers said they were sorry. He replied:

"I am sorry for myself, but I am sorrier for you."

"Why?" they asked.

He replied, "You pay rent for your offices, rent for the space I have occupied. You have no one now occupying that space; the consequence is that you are getting no return for your outlay. You are losing that amount. Small, I admit—only a leak, a sign of weakness; but, if that leak extends the bank may give way. In other words, your business is declining. I shall be totally unemployed, but you will be relatively unemployed, and unless you take steps to check that tendency you yourselves may be overwhelmed."

For ten years I was officially employed—I say officially—at one of the County Asylums. When I look round and see poverty, want, destitution and despair existing, unnecessarily, in a Land of Plenty, I am almost led to believe that there is more sanity in insanity than there is in sanity.

If the present Government administered the whole of the country in the same way as lunatic asylums are at present administered, the administration would be less brutal than it is now.

There is a tendency to view the unemployment question from a maudlin and sentimental standpoint. That is absolutely wrong. Unemployment is a dangerous, insidious, and will be ultimately a fatal, national disease. I would ask everyone to look at it from a personal standpoint, before they themselves become defenceless and engulfed.

As one of the unemployed I do not ask for charity. I want no one to give me a pair of their old trousers, or an orange. What I do ask is for everyone to treat the problem as an individual problem, and to realize that they of themselves are skating on very thin ice. By doing this, they will be assisting the unemployed, who are but the shock troops in an economic war—a war in which no one will win and all will be losers, and therefore a state of things which should be brought to a speedy and immediate termination.

When one considers all the sentimental tosh and tripe that has been uttered regarding unemployment, I feel I cannot conclude without thanking all the contributors to this admirable issue for having, in the limited space at their disposal, shown that the problem is not insuperable if honesty, integrity, and effort is brought to bear upon the subject. A. W. WYATT

[*This letter is given point by the fact that Mr. Wyatt is a member of an illustrious architectural family, being a descendant of the great James Wyatt.* —ED., *A.J.*]

Blowing Hot and Cold

SIR,—I feel very grateful to Mr. A. H. Dungay for his very kindly reference to my letter in last week's issue of the JOURNAL, but I do not follow him when he says it was contradictory, and after careful thought the only conclusion I can come to is that he has got so frightfully cold he has become frozen. The weather is undoubtedly very trying just at the present time.

GERALD MCMICHAEL

The R.I.B.A. Building

SIR,—There are loyalties to family, friends and immediate associates, and in a wider sense to the general community and one's country.

I submit that loyalty to the architectural profession as a whole, and to the public, demands a further consideration of the façade to Portland Place, an illustration of which appeared in your JOURNAL for December 7, 1932.

There seems to be a grave lack of proportion and correlation between the terrific hole in the centre, surrounded by smaller holes, to the total surface area, and the same exaggerated disproportion between the small figures perched on the slender columns and the bas-relief over the central opening.

Now that it has been decided to curtail the size of the building and to retain the northernmost house, I suggest to the Council of the Institute that they should give heed to Mr. Voysey's suggestion, made, I believe, some twelve months ago in your JOURNAL, that the new building should be treated as an isolated unit. This house should be pulled down to make way for a court and garden (imagination can suggest a charming architectural treatment). Would Mr. Wornum not welcome such an opportunity? Additional light would also become available.

The façade as designed can never form a portion of a general scheme and the logical treatment would now appear to be an isolated building.

F. WORTHINGTON SIMON
(THE BRITISH CLUB, ALASSIO)

Information Sheets

SIR,—We consider the idea of the Information Sheets, of which you publish the first in this week's issue of the JOURNAL, generally to be excellent.

In our office we have certain tabulated information on various crafts, trades, and so on, which prove to be very useful.

A system which you propose, accompanied by clear drawings, should be of very great value to any architect's office as a standard reference.

We might suggest the following:—

(*a*) The sheets be of stiff paper.
(*b*) A binding margin allowed.
(*c*) Printing to be black on white or grey paper.
(*d*) Any special points regarding the illustrations be printed on the back of sheet so as to avoid overcrowding the drawings.

WILLIAM AND EDWARD HUNT

[*With regard to the suggestions made by the above correspondents:* (*a*) *It has been found by experimenting with both stiff and flimsy papers that the latter is more suitable for its purpose.* (*b*) *A binding margin is allowed.* (*c*) *This question is really a matter of opinion.* (*d*) *Points regarding the information sheets* are *printed on the back of each.*—ED., *A.J.*]

SIR,—I was pleased to notice in your issue for January 18 the first of a series of Information Sheets. For many years I have wanted technical information that was really at hand when the need arose, and to have a convenient file of these sheets will surely ease the labour of this trying part of our work.

In a similarly concise manner you have in the past so successfully dealt with details of architectural design that I am sure your efforts in the technical field will be equally appreciated and successful.

WALLACE MARCHMENT

SIR,—The action of Sir John Burnet, Tait and Lorne in permitting the publication of their Information Sheets accords with the highest traditions of the profession. Their generous gesture adds yet one more item to the debt which architects and architecture owe to this most happy band of master-craftsmen.

To the enterprise and vision of THE ARCHITECTS' JOURNAL for its part in this undertaking " full marks " are also due.

Every practitioner and each member of his staff will have good cause to be grateful for these Sheets long before their publication has come to an end.

SYDNEY TATCHELL

Roofing Tiles

SIR,—Can you inform me where I can obtain a plain roofing tile (10½ ins. by by 6½ ins.) machine pressed in green with a glazed surface? I have seen some on the outskirts of North London, but have been unable to trace the makers. Perhaps you or some of your readers could give me the information.

W. M.

Carlton House Terrace

A meeting of the Carlton House Terrace Defence Committee will be held at Caxton Hall, Caxton Street, Westminster, S.W., tomorrow, February 2, at 5.30 p.m. The Right Hon. Sir Arthur Steel-Maitland, the chairman of the Committee, will preside. Following is an up-to-date list of the members of the Committee, of which Mr. J. C. Squire is the vice-chairman, and Miss M. I. Batten the secretary:

Sir John Sandeman Allen, M.P.; H. V. Ashley, F.R.I.B.A.; Robert Atkinson, F.R.I.B.A.; T. H. R. Adams, F.R.I.B.A.; C. R. Ashbee, F.R.I.B.A.; M. B. Adams (fifty-one years Editor, *Building News*); Maxwell Ayrton, F.R.I.B.A.; C. B. J. Athoe; Herbert Alexander, R.W.G.S.; Major G. B. J. Athoe; Martin Armstrong; F. N. Astbury, A.R.I.B.A.; Lord Astor.

Sir Alfred Beit, M.P.; Sir Adrian Baillie, M.P.; Sir Robert Bird, M.P.; Alfred Bossom, M.P., F.R.I.B.A.; C. E. Brocklebank, M.P.; P. G. T. Buchan-Hepburn, M.P.,; Sir John Burnet, F.R.I.B.A.; R. Bernays, M.P.; H. Harris Brown; Darcy Braddell, F.R.I.B.A.; L. H. Bucknell, F.R.I.B.A.; H. Buckland, F.R.I.B.A.; Laurence Binyon, Keeper British Museum; Robert Byron; Clive Bell; Hope Bagenal; Muirhead Bone, LL.D.; A. P. Butler; Christian Barman, Editor, *Architectural Review;* John Betjeman, Sub-Editor, *Architectural Review;* Lady Baxter; James Bone, London Editor, *Manchester Guardian;* Gerald Barry, Editor, *Week-End Review;* Gordon Bottomley; Clifford Bax; J. M. Bulloch, LL.D.; Hon. Maurice Baring, O.B.E.; Reginald Blunt, A.K.C.; Lawrence Binyon, C.H.; Miss L. Baylis, C.H.; Leonard Barmit; Rt. Hon. Augustine Birrell, K.C.; E. F. Benson; J. I. C. Bodger; Lord Berwick; Viscount Bearsted; H. Martin Benson; Arnold Bax; John Betts, Joint Editor of *The City Press.*

The Viscount Castlereagh, M.P.; The Marquess of Crewe, P.C., K.G.; Major W. H. Carver, M.P.; Captain H. Crookshank, M.P.; A. C. Caporn, M.P.; Sir George Clausen, R.A.; Beresford Chancellor, F.S.A., HON. A.R.I.B.A.; G. K. Chesterton, F.R.S.L., LL.D. (Edin.), D.LITT. (Ireland); Hon. E. Charteris, K.C.; Prof. R. S. Conway, LITT.D.; R. Cory; W. G. Constable, Director Courtauld Institute of Art; C. R. V. Coutts, F.I.A.; Lord Charnwood; Miss Cazalet, M.P.; Harold Cox; Cyril Carter; Rt. Hon. Sir Austen Chamberlain, K.G., K.C., M.P.; Lord Cushendun, P.C., J.P.; W. D. Caröe, F.R.I.B.A.; Col. C. de W. Crookshank, M.P.; Rev. H. Costley-White, D.D., Headmaster of Winchester School.

Lord Darling; T. L. Dale, F.R.I.B.A.; Walter de la Mare; Guy Dawber, A.R.A., F.S.A., Chairman, C.P.R.E.; John Drinkwater; Sir William Davison, M.P.; The Marquess of Dufferin and Ava; Lord Dickinson; Alfred Denville, M.P.; Major J. Despencer-Robertson, O.B.E., M.P.; Sir Gerald du Maurier.

Viscount Esher, Chairman, S.P.A.B.; Charles Emmott, M.P.; Joseph Emberton, F.R.I.B.A.; Miss M. E. Edwards; Frederick Etchells, F.R.I.B.A.; Sir Edward Elgar, Bt., O.M., K.C.V.O.; Simon Elwes; Capt. G. S. Elliston, M.C., M.P.

Rt. Hon. H. A. L. Fisher, F.R.S., Warden, New College, Oxford; Sir Walter Fletcher, K.B.E., C.B., SC.D., F.R.C.P., F.R.S.; Sir Banister Fletcher, PP.R.I.B.A.; M. Fletcher; E. Maxwell Fry, A.R.I.B.A.; Hanslip Fletcher; M. D. Forbes; Lord Farrar; Sir Johnston Forbes-Robertson; Herbert Furst; Edward B. Fielden, M.P.

Sir E. Graham-Little, M.P., M.D., F.R.C.P.; J. C. M. Guy, M.P., M.C.; Sir Robert Gower, M.P., O.B.E.; Sir Edward German; Mark Gertler; J. L. Garvin, Editor, *The Observer;* John Gloag; R. H. Gleadowe; Professor E. Gardner, Emeritus Prof. of Archæology, University of London; H. A. Gwynne, Editor, *Morning Post;* J. A. Gotch, F.S.A., PP.R.I.B.A.; George Gordon, President, Magdalen College, Oxford; Eric Gill; The Hon. Bryan Guinness; W. J. Galtrey; Commander Grenfell, R.N.; Harley Granville-Barker; H. Goitein, LL.D.; Robert V. Grimston, M.P.; H. G. Griffin; L. H. Gluckstein, M.P.

Dr. A. B. Howitt, M.P., C.V.O.; Christopher Hussey, Assistant Editor, *Country Life;* P. D. Hepwith, F.R.I.B.A.; W. Harvey, F.R.I.B.A.; H. de Cronin Hastings, Editor, *The Architects' Journal;* Oliver Hill, F.R.I.B.A.; W. Heywood, F.R.I.B.A.; Miss M. B. J. Harris; C. Harman Hunt, P.A.S.I., F.A.I.; J. Hayward; E. Hutton; Francis Howard; Ian Hay; Gordon Home; Captain Basil Hall, R.N.; H. Wilson Harris, Editor, *The Spectator;* Rt. Hon. Sir Robert Horne, M.P., G.B.E., K.C.; Viscount Hambleden; Rt. Hon. Sir Ellis Hume-Williams, K.C.; R. Hartley; Rt. Hon. Major J. W. Hills, M.P.; The Marquess of Hartington, M.P.; T. Fleetwood Hesketh, Editor of *The Master Builder;* Julian Huxley.

The Earl of Ilchester; The Earl of Iddesleigh.

Augustus John, R.A., A.R.A.; C. H. James, F.R.I.B.A.; Ernest Jones, M.D.; Sir W. Goscombe John, R.A.

Viscount Knebworth, M.P.; Major-General Sir Alfred Knox, M.P., K.C.B., C.M.G.; J. M. Keynes; Arthur Keen, F.R.I.B.A.; Dame Laura Knight, D.B.E., A.R.A.; J. D. Kendall, Editor, *Architectural Design and Construction;* A. McKnight Kauffer; P. G. Konody; A. B. Knapp-Fisher, F.R.I.B.A.; The Earl of Kenmare, C.V.O.; B. W. Kisson; E. V. Knox, Editor of *Punch;* G. W. Holford Knight, K.C., M.P.

Sir John Lavery, R.A., R.S.A.; Lady Lavery; H. V. Lanchester, F.R.I.B.A.; Robert Lynd; Alan Laurence; The Earl of Lytton, P.C., G.S.C.I., G.C.I.E.; Countess of Lytton; Rt. Hon. G. Locker-Lampson, M.P.; Com. O. Locker-Lampson, M.P., C.M.G., D.S.O.; Philip Lofts; J. A. Lovat-Fraser, M.P.

The Earl of Midleton, K.C.; A. H. E. Molson, M.P.; J. H. F. McEwen, M.P.; T. B. Martin, M.P.; Miss Violet Markham; Rose Macaulay; S. P. B. Mais; A. H. Moberly, F.R.I.B.A.; Sir David Murray, R.A.; G. MacMichael, A.R.I.B.A.; Harrington Mann; Miss Margetson; Raymond McGrath, F.R.I.B.A.; Duncan Miller; Desmond McCarthy, F.R.S.L.; Sir Reginald MacLeod of MacLeod, K.C.B.; H. J. Massingham; D. S. MacColl; Capt. H. MacMillan, M.P.; Edward Maufe, F.R.I.B.A.; G. G. Mitcheson, M.P.; Arthur Mee, Editor of *The Children's Newspaper.*

Godfrey Nicholson, M.P.; Beverley Nichols; Dr. Cyril Norwood, Headmaster of Harrow; Sir Henry Newbolt, C.H.; W. G. Newton, M.C., F.R.I.B.A.; J. G. Noppen; William Nicholson; H. L. Nathan, M.P.; P. J. Noel-Baker; Mrs. Noel-Baker.

Prof. Sir C. W. C. Oman, M.P., K.B.E., F.S.A., Chichele Prof. Mod. History, Oxford; The Countess of Oxford and Asquith; Lord Olivier, K.C.M.G.,C.B.; Basil Oliver, F.R.I.B.A.; P. Oakes.

A. R. Powys, F.R.I.B.A., Sec., S.P.A.B.; W. S. Purchon, A.R.I.B.A.; Dod Procter; Ernest Proctor; Lionel Pearson, F.R.I.B.A.; Sir Philip Pilditch, Bart.; F. Pennington; W. K. Plume, Editor, *The Builder;* A. R. Potter, Sec., The Town Planning Institute; Eric Parker, *The Field;* Lt.-Col. H. E. Pennethorne; Frank Pick.

The Marchioness of Queensberry; C. H. B. Quennell, F.R.I.B.A.

Lord Riddell; Professor A. E. Richardson, F.S.A., F.R.I.B.A., Prof. Arch., London University; Professor C. H. Reilly, Prof. Architecture, University of Liverpool; T. Rayson; S. C. Ramsey, F.R.I.B.A.; M. J. Rendall, LL.D.; Albert Rutherston; Mrs. N. Rowan-Hamilton; Miss E. Rathbone, M.P.; Sir Landon Ronald.

Lord Scone, M.P., B.A., F.Z.S., F.Z.S. (Scot.), M.B.O.U., J.P.; A. A. Somerville, M.P.; Sir N. Stewart Sandeman, Bt. M.P.,; Dame Ethel Smyth, D.B.E., MUS.DOC.; Marshall Sisson, F.R.I.B.A.; Sir Michael Sadler, C.B., K.C.S.I., Master, University College, Oxford; Michael Sadleir; Sir Giles Gilbert Scott, R.A., F.R.I.B.A.; Siegfried Sassoon; Clifford Smith; Sir Arthur Somervell, MUS.DOC.; Mrs. B. Slater; Hon. William Sidney; Wilson Steer; Sir Charles Sherrington, O.M.; Lady Sherrington; Osbert Sitwell; Brig.-Gen. E. L. Spears, M.P., C.B., C.B.E., M.C.; Lord Saye and Sele; T. M. Snow; Viscount and Viscountess Snowden; Sir Leslie Scott, K.C.; Sir Edward Stern; Capt. T. E. Sotheron-Estcourt, M.P.

Alan Stuart Todd, M.P.; Frederick Towndrow, F.R.I.B.A.; Sidney Tatchell, F.R.I.B.A.; Ernest Thesiger; W. J. Turner; Henry Tonks, F.R.C.S., late Prof. Fine Art, London University; T. Tenney, C.B.E.; H. Tomlinson, F.R.I.B.A.; Rupert Thompson; F. Longstreth Thompson, B.SC., F.S.I., A.M.I.C.E.; Sir Andrew T. Taylor, F.S.A., Chairman, London Society; G. M. Trevelyan, O.M., C.B.E., F.B.A.

Eric G. Underwood.

R. Vaughan Williams.

Earl Winterton, M.P.; H. J. S. Wedderburn, M.P.; Commander C. Williams, M.P.; H. C. White, M.P.; Major Maurice Webb, F.R.I.B.A.; J. H. Worthington, O.B.E., F.R.I.B.A.; P. S. Worthington, F.R.I.B.A.; Grey Wornum, F.R.I.B.A.; Clough Williams-Ellis, F.R.I.B.A.; Col. Sir Arnold Wilson, K.C.I.E., D.S.O.; A. R. Wagner, Portcullis Pursuivant; Canon A. T. P. Williams, Headmaster of Winchester; C. G. White; Arnold Whittick; Hugh Walpole, C.B.E.; Sir Henry Wood; G. H. A. Wilson, O.B.E., M.P., Master of Clare College, Cambridge; Sir John Withers, C.B.E., M.P.

Miss. C. Young.

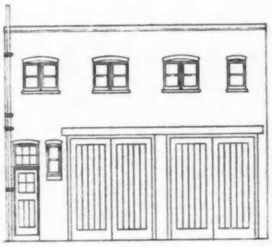
New Standards for Ventilation

Ventilation and the need for new standards will be the subject of a discussion which is to take place at the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, on Tuesday, February 14, at 5.30 p.m.

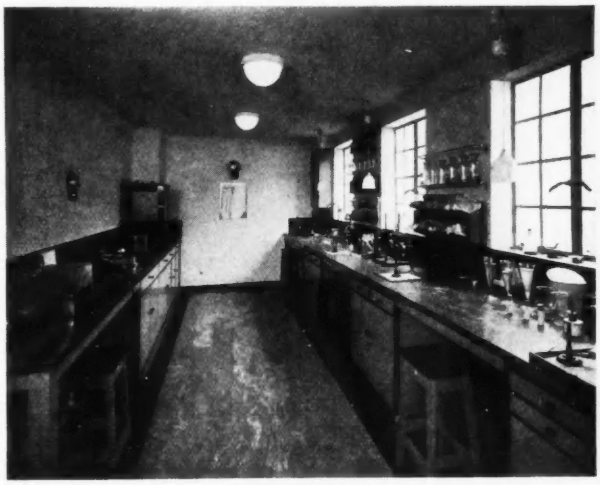
Sir Leonard Hill, LL.D., F.R.S., M.B., will preside, and the discussion will be opened by Dr. J. S. Owens, ASSOC.M.INST.C.E.

BACTERIOLOGIST'S LABORATORY OVER A GARAGE

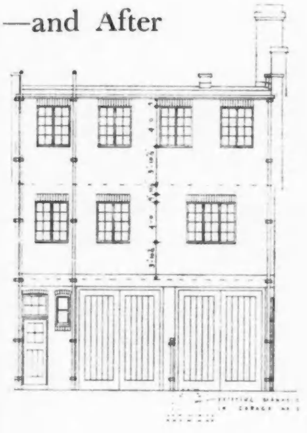
Before—



WEST ELEVATION TO MEWS



—and After

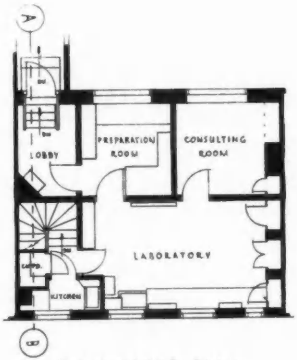


WEST ELEVATION ON TO MEWS

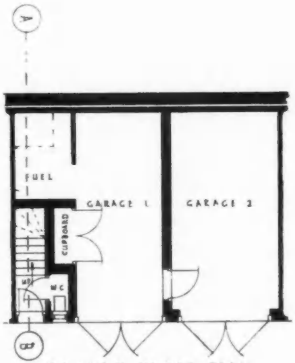
COURTENAY THEOBALD AND DEANE SKURRAY, ARCHITECTS

To meet the needs of a specialist's expanding practice, what had been a chauffeur's flat, at 47 Wimpole Street, was replanned, as to first floor and stairs, and a second story added, as shown in the plans, before (black) and after (grey). An attendant showing in a patient communicates by a bell with a secretary in lab. No. 2, who ushers him into the consulting room. The doctor is in close touch with his assistants in lab. No. 2, and they, in their turn, with the second floor, by telephone and hand-lift, used for sending down the results of experiments or other preparations required.

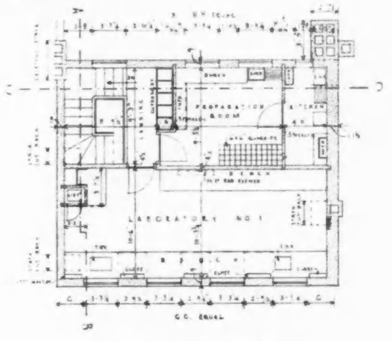
All floors are paved with rubber with a wide black border and wood teak skirting. Every available space is used for cupboards and shelves, each designed for a definite purpose. All doors are flush, and cupboards and drawer frames are edged with teak. The bench in lab. No. 1, where a dark background is required for microscopic observation, is covered with waxed teak and egg-shell black tiling; that in lab. No. 2 with white opalite and white glazed tiling. Shelves are of plate glass with chromium-plated brackets; arched taps and other sanitary fittings are also chromium-plated. The staircase walls and ceilings are enamel painted. The stairs are of reinforced concrete, with teak treads and risers.


A
LOBBY
PREPARATION ROOM
CONSULTING ROOM
LABORATORY
KITCHEN
B

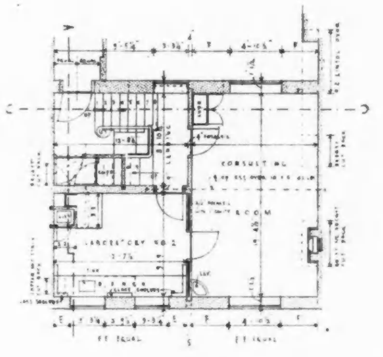
FIRST FLOOR PLAN


A
FUEL
GARAGE 1
GARAGE 2
CUPBOARD
W.C.
B

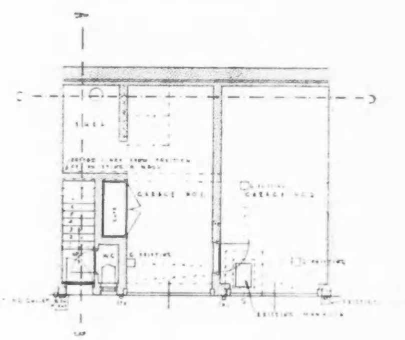
GROUND FLOOR PLAN


PREPARATION ROOM
LABORATORY NO. 1

SECOND FLOOR PLAN


CONSULTING ROOM
LABORATORY NO. 2

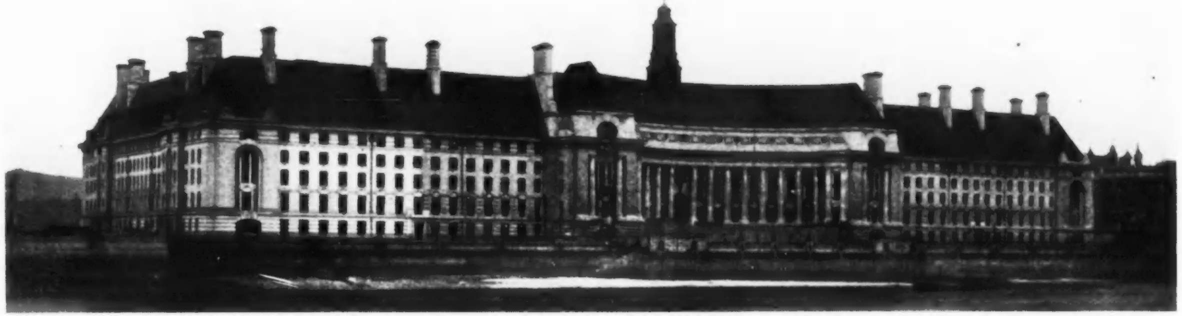
FIRST FLOOR PLAN

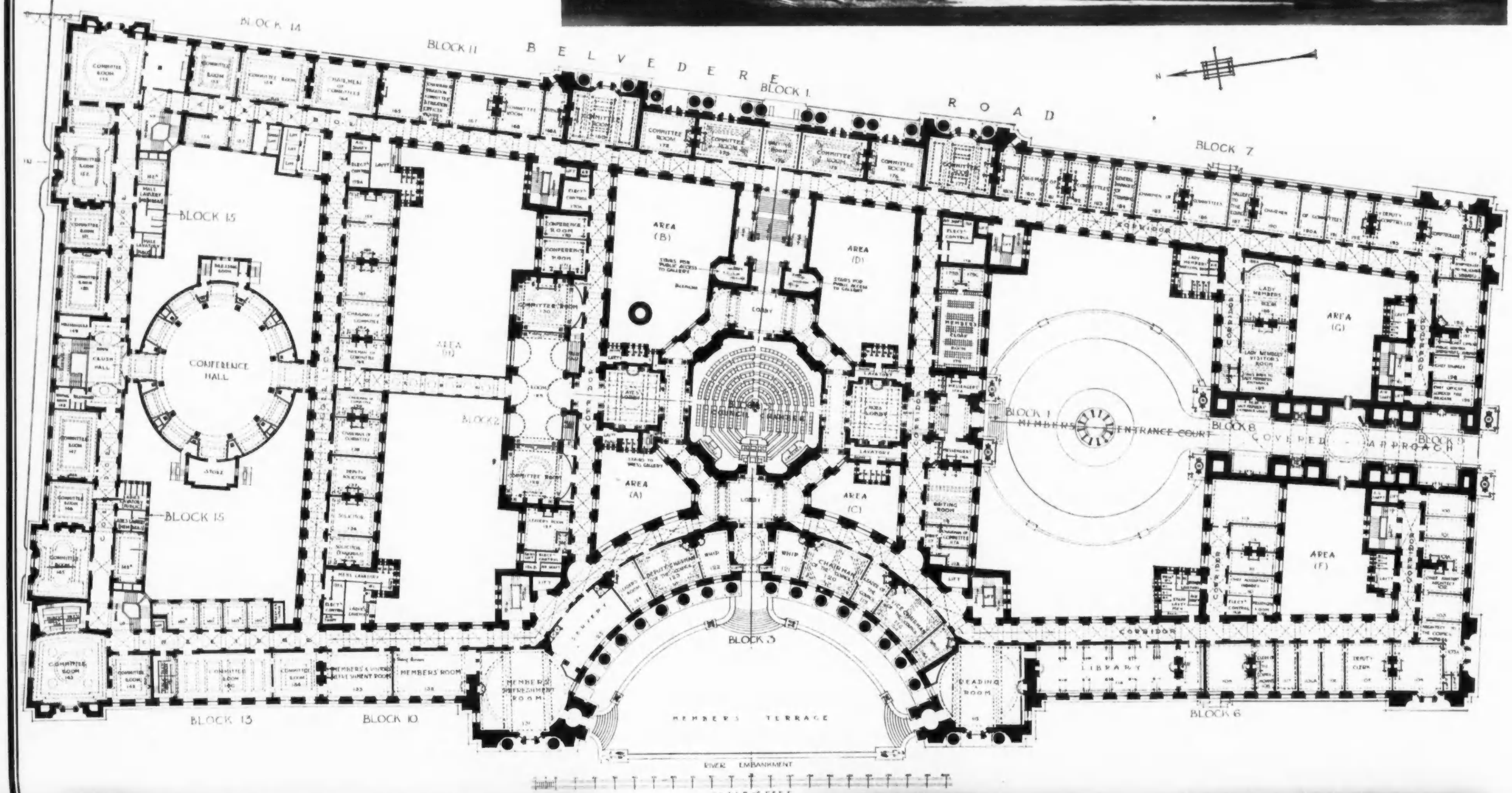

GARAGE NO. 1
GARAGE NO. 2

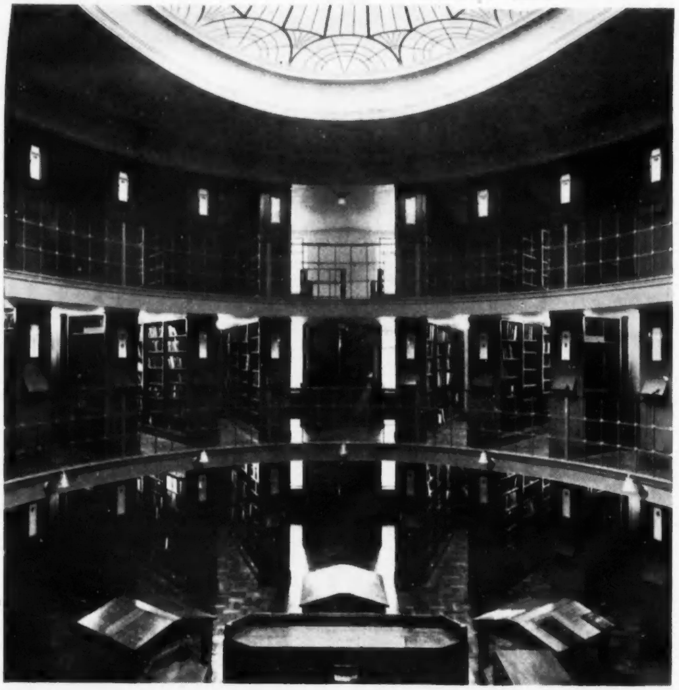
GROUND FLOOR PLAN

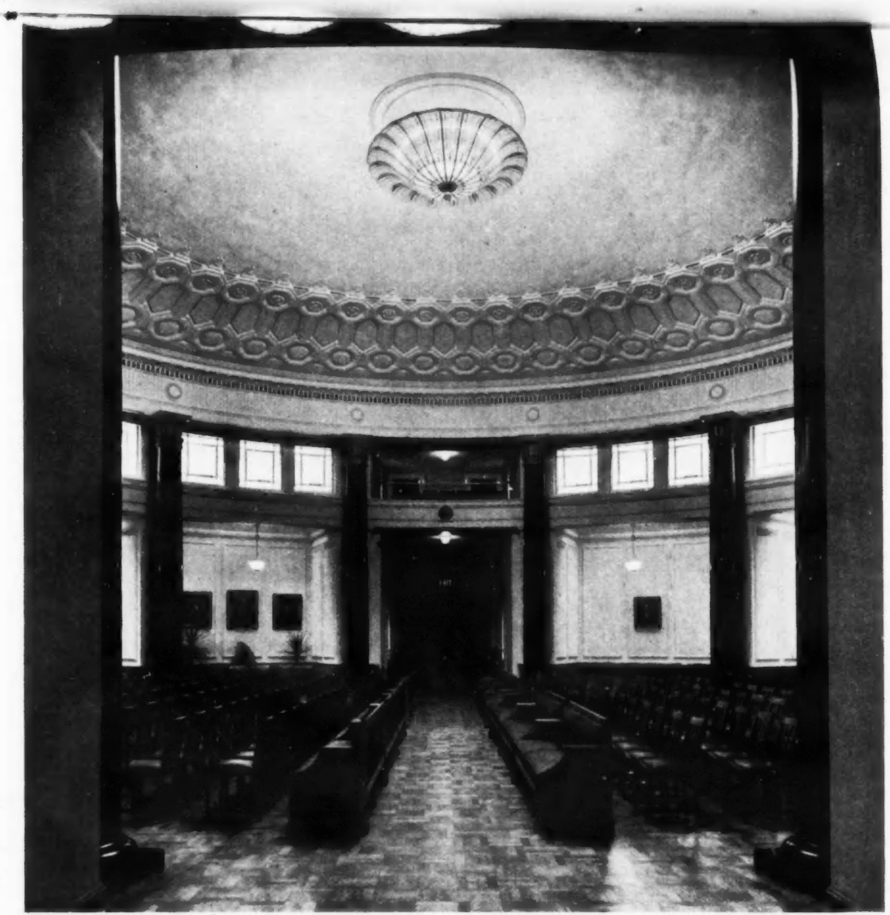
LONDON COUNTY HALL • NORTH WING • BY RALPH KNOTT AND E. STONE COLLINS

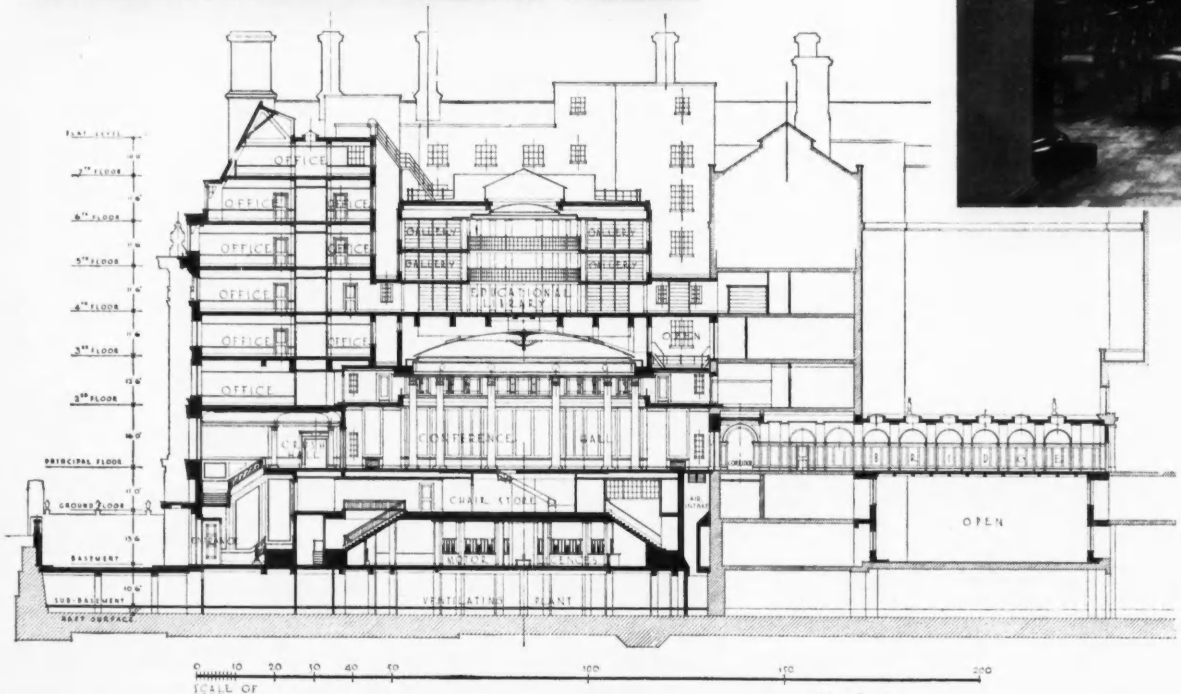
[*This photograph was taken from across the river by means of an infra-red plate, in the misty weather of last Friday, when the details of the building was invisible to the eye.*—ED., *A.J.*]




BLOCK 14
BLOCK 11
BELVEDERE ROAD
BLOCK 1
BLOCK 7
N
BLOCK 15
CONFERENCE HALL
AREA (B)
AREA (D)
AREA (A)
AREA (C)
BLOCK 2
LOBBY
COUNCIL CHAMBER
BLOCK 1
MEMBERS' ENTRANCE COURT
BLOCK 8
COVERED APPROACH
BLOCK 9
AREA (G)
AREA (F)
LADY MEMBERS' VISITORS' ROOM
CORRIDOR
WHIP
CHAIRMAN
BLOCK 3
MEMBERS' TERRACE
MEMBERS' REFRESHMENT ROOM
READING ROOM
LIBRARY
MEMBERS' ROOM
BLOCK 13
BLOCK 10
BLOCK 6
RIVER EMBANKMENT
SCALE OF FEET





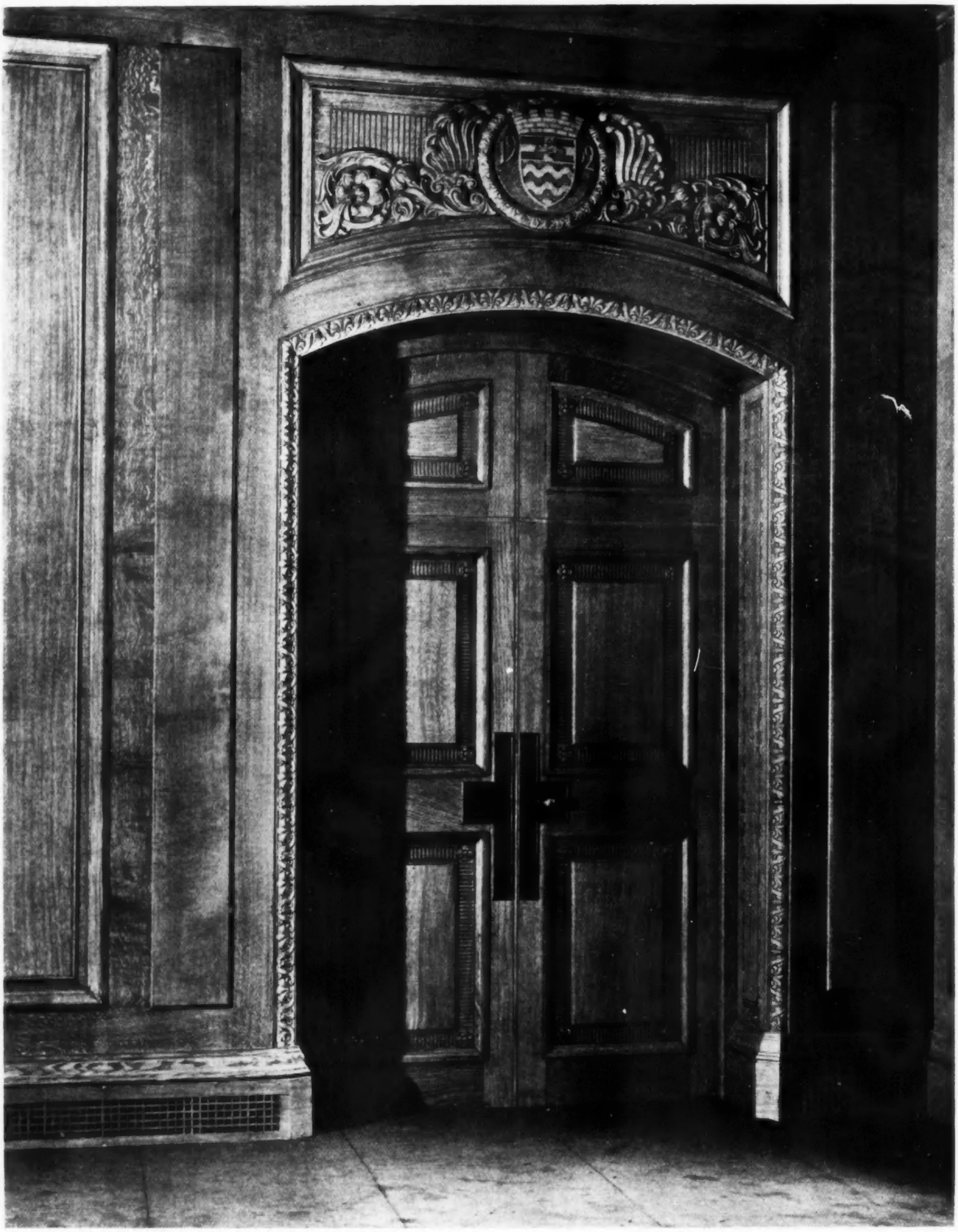

FLAT LEVEL
10' 0"
7TH FLOOR
11' 6"
6TH FLOOR
11' 6"
5TH FLOOR
11' 6"
4TH FLOOR
11' 6"
3RD FLOOR
13' 6"
2ND FLOOR
16' 0"
PRINCIPAL FLOOR
11' 0"
GROUND FLOOR
13' 6"
BASEMENT
10' 6"
SUB-BASEMENT
RAFT SURFACE
OFFICE
GALLERY
EDUCATIONAL LIBRARY
OPEN
CRUSH HALL
CONFERENCE HALL
CHAIR STORE
ENTRANCE
MOTOR
ENGINES
VENTILATING PLANT
OPEN
0 10 20 30 40 50 100 150 200
SCALE OF FEET

SECTION

London County Hall was opened by the King, accompanied by the Queen, in July, 1922, rather more than ten years after his Majesty had laid the foundation stone. There is to be no official opening of the northern wing, but, to mark its completion, the Prime Minister will be entertained at luncheon by the Chairman on March 1 next, in the new conference hall, illustrated above.

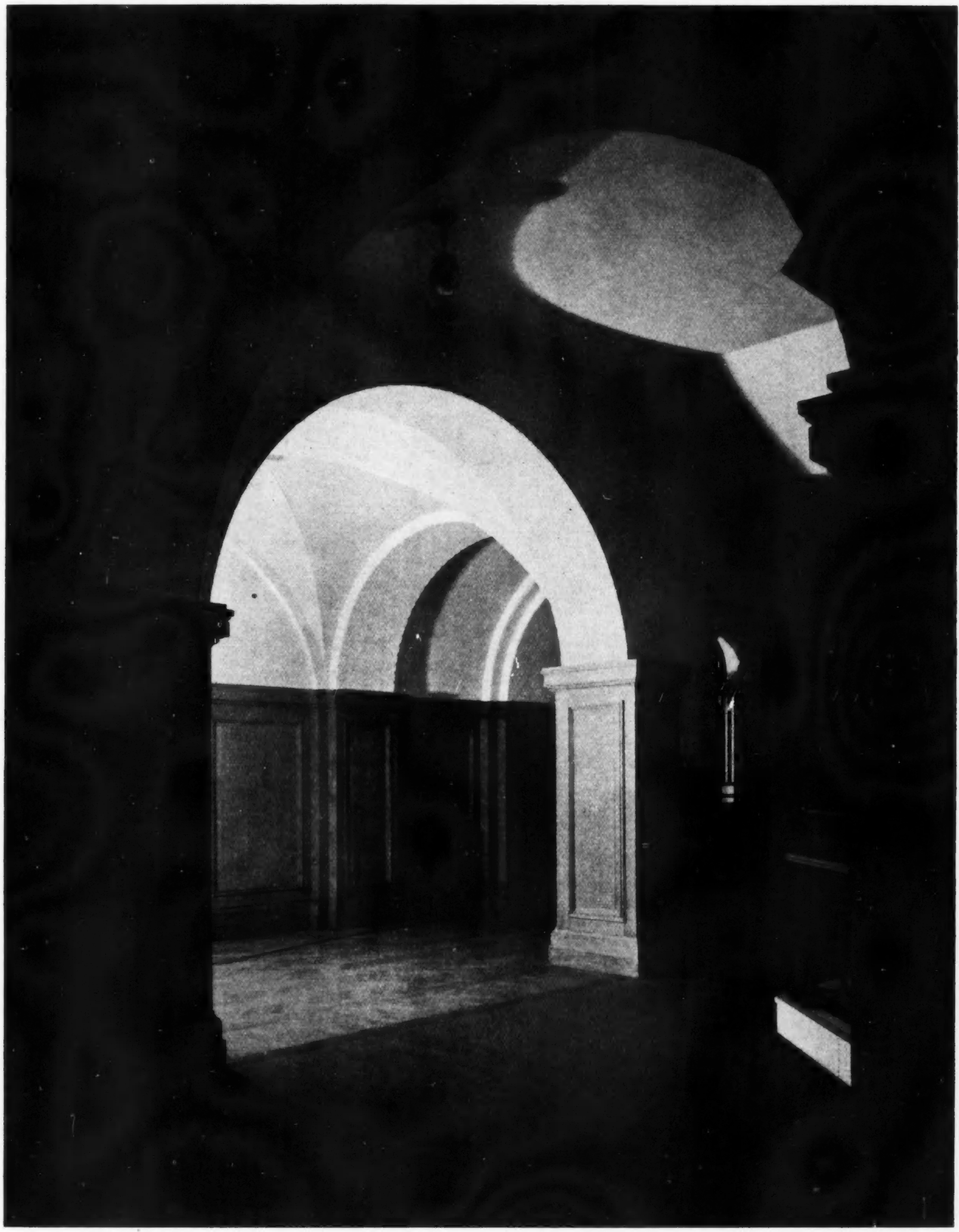
This is the central apartment of the new wing, which consists of blocks 13, 14 and 15, and its relation to the remainder of the building is seen in the plan on the facing page. It has over it the library for 80,000 volumes, also shown, and is surrounded by a number of committee rooms. There have been considerable modifications of the original design with which the late Ralph Knott won the competition (and a prize of £30,000), for requirements have changed in the intervening twenty-six years; after his death, in 1929, the work was carried on by his lifelong friend and partner, E. Stone Collins, who, in partnership with Llewellyn Roberts, has practically designed the whole of this new section. Its cost approaches £700,000, bringing up the total expenditure to nearly £4,000,000, and it adds some 200 rooms to the existing 700.

LONDON COUNTY HALL • THE NEW NORTH WING •



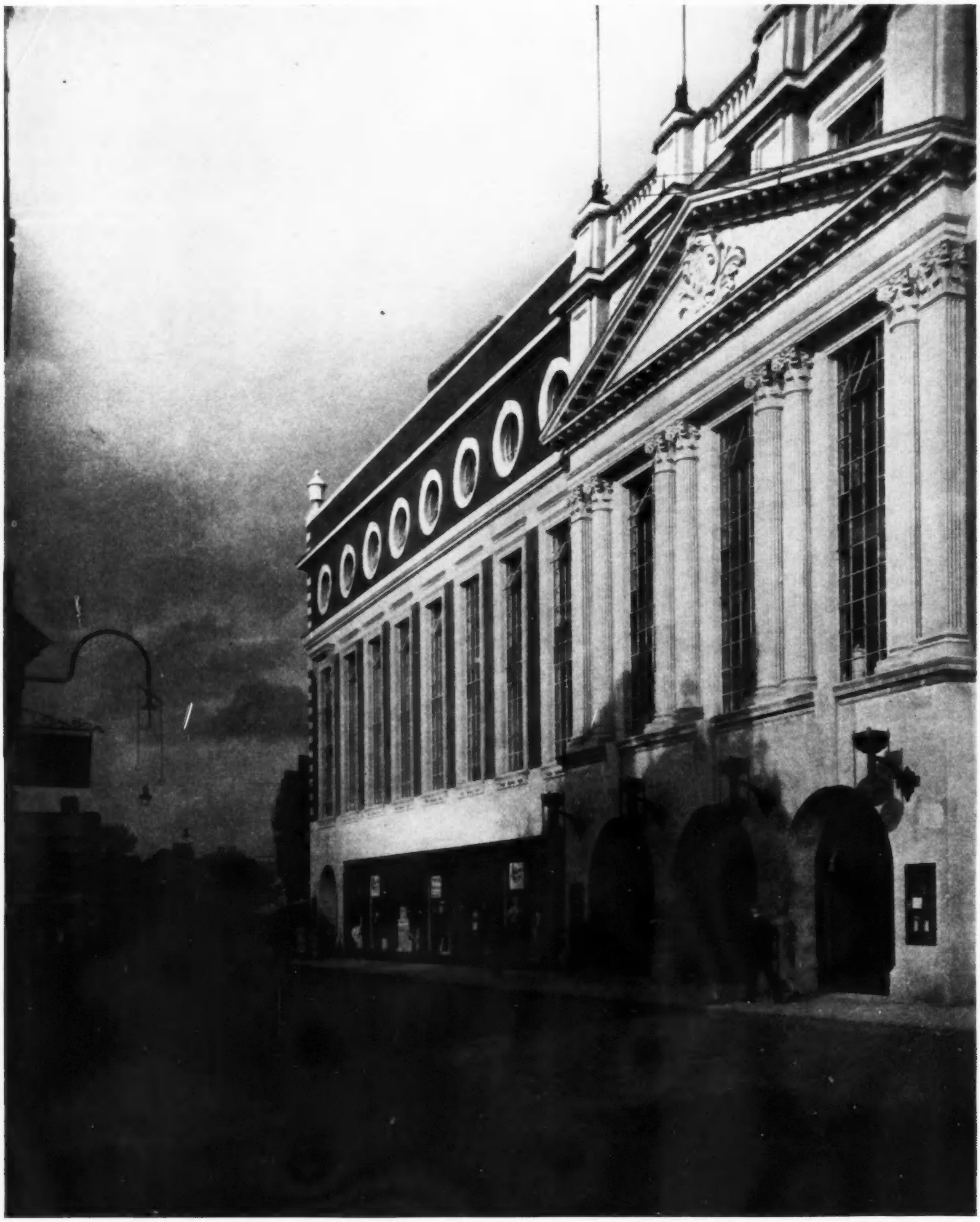
An oak doorway in one of the committee rooms, carved by A. H. Wilkinson.

BY THE LATE RALPH KNOTT AND E. STONE COLLINS

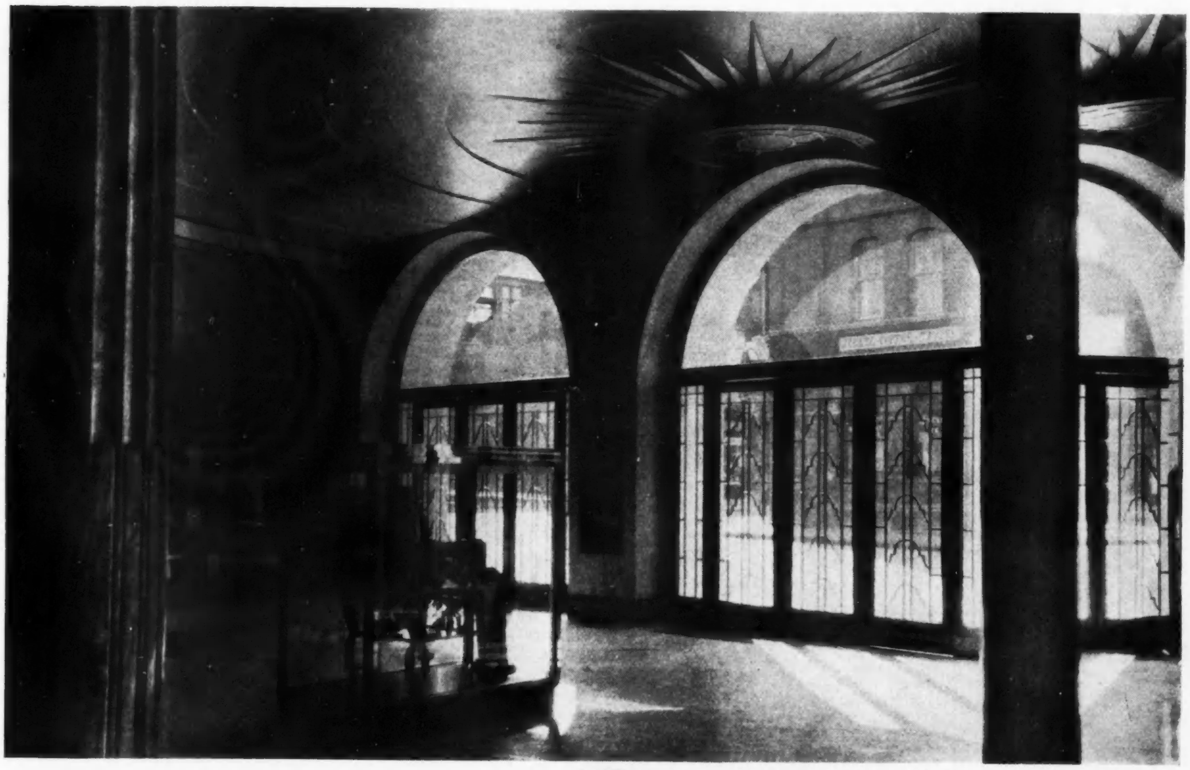


The staircase landing on the principal floor, at the north-east corner of the new extension.

BENTALL'S STORE KINGSTON-UPON-THAMES:

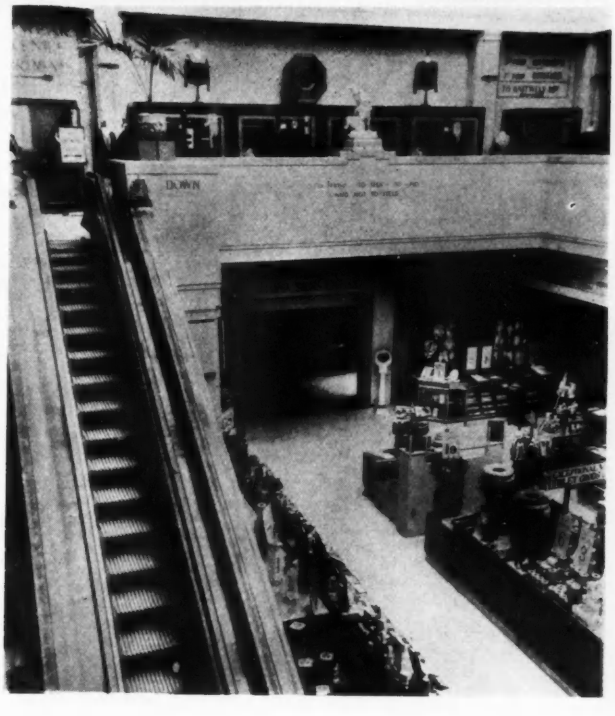


DESIGNED BY SIR ASTON WEBB AND SON

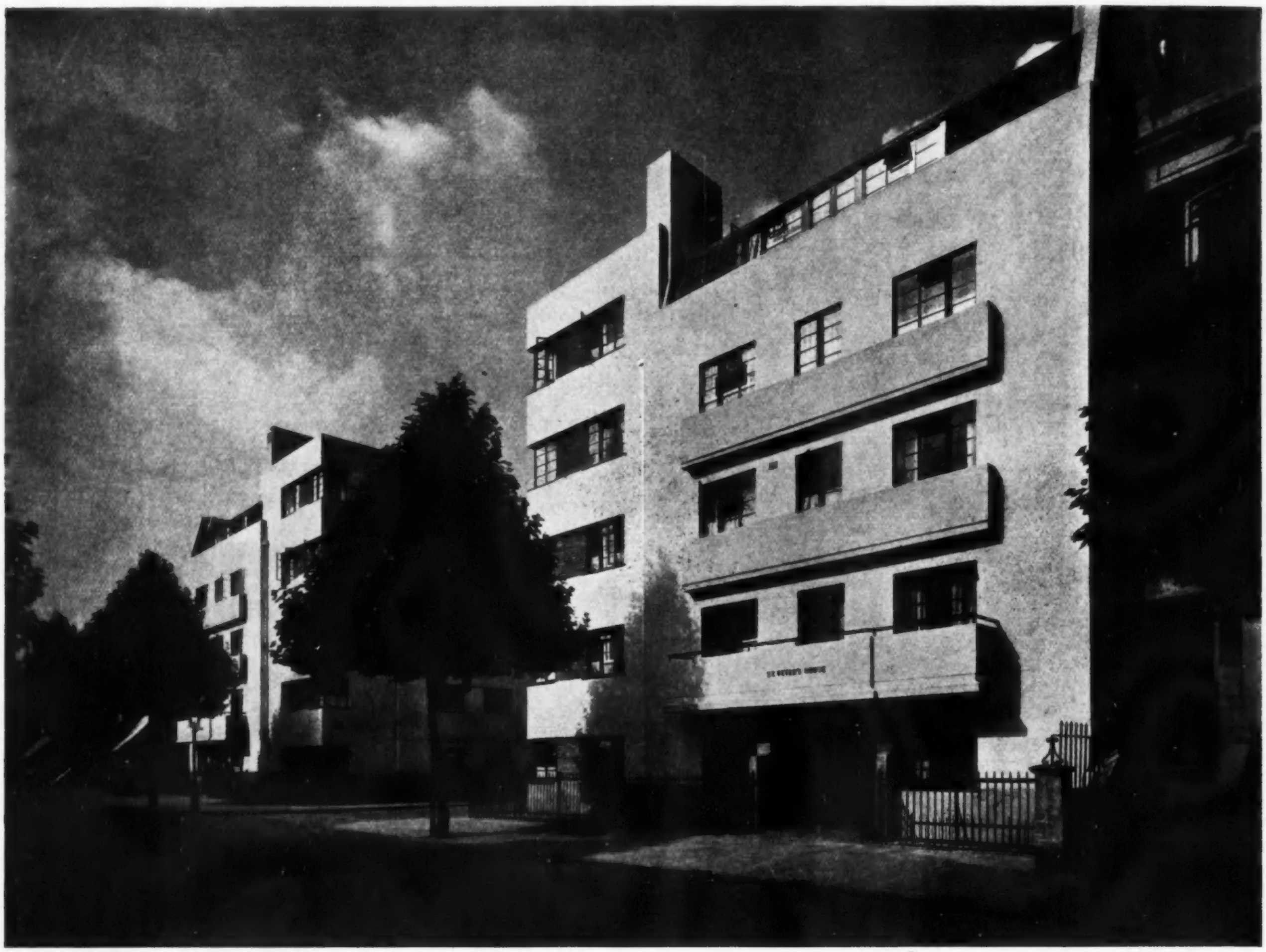


As will be seen from the plan reproduced on the last page of the four-page supplement with this issue, the site of these extensive premises, taken as a whole, has some resemblance to a triangle, with its base fronting Clarence Street, Kingston, and a long side facing Wood Street. In the course of a year's work there has been erected the new central block, with its entrance in Wood Street, now illustrated; the apex and the base of the triangle are to be remodelled in due course. The views on the facing page and above show the Wood Street entrance from without and within; the supplement includes a detail drawing of its centre bay.

This store, which has grown, under two generations of the same family, from a small haberdashery shop on the same site, is probably the largest of its kind in the satellite towns of London. A staff of 2,500 is provided for. The fact that it is outside the area administered by the L.C.C. has facilitated certain arrangements, among the most significant of which is the substitution of escalators for the usual main staircase; stairs and lifts are, however, provided. A large central open space, lit by a great laylight above, thus effectively displays the show-space on the ground floor, and also gives views of those on the three floors above. There is a restaurant seating 700 people.



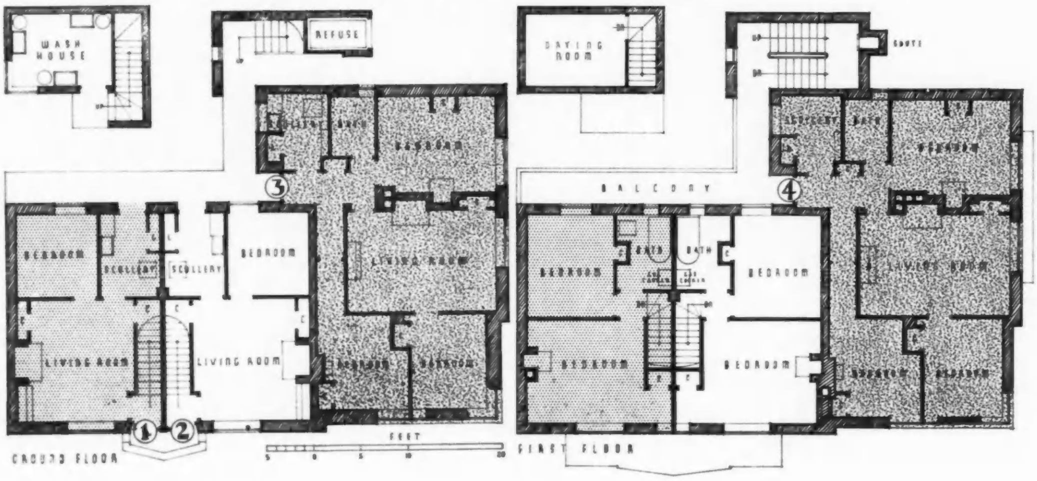
WORKING CLASS FLATS AT KENSINGTON: BY



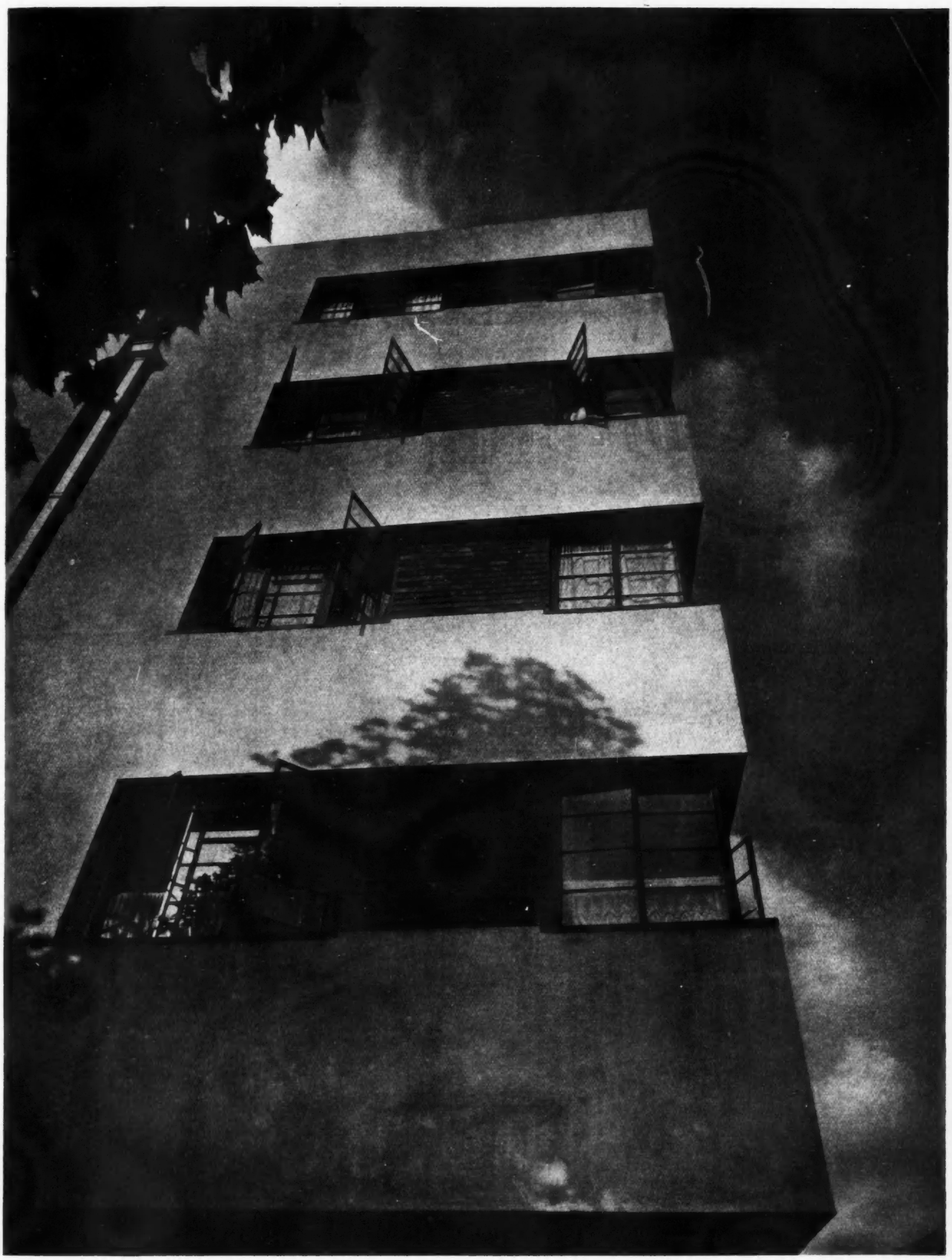
These flats are situated in Silchester Road, North Kensington. They are built of brick externally, conforming to the requirements of the L.C.C., and are rendered with cream Portland cement. Internal stanchions and steel joists are used to support the filler-joist floors, with steel cantilevers for the angle windows.

Each flat contains a living-room, three bedrooms, a bathroom and scullery. There are also built-in cupboards to all the rooms and a built-in dresser in the living-room. One block has a communal wash-house with large drying room over; the other an individual copper in scullery.

The flats are fully illustrated and described in the February issue of THE ARCHITECTURAL REVIEW.


WASH HOUSE
REFUSE
DRYING ROOM
CHUTE
BALCONY
SCULLERY
BATH
BEDROOM
LIVING ROOM
SCULLERY
SCULLERY
BEDROOM
LIVING ROOM
BEDROOM
BEDROOM
BATH
BATH
BEDROOM
BEDROOM
BEDROOM
BEDROOM
LIVING ROOM
BEDROOM
BEDROOM
①
②
③
④
FEET
5 0 5 10 20
GROUND FLOOR
FIRST FLOOR

S. CAMERON KIRBY (T. Smith Shearer and S. Cameron Kirby)



QUESTIONS THAT ARISE

Squash Rackets Court

¶ D. S. writes: "*Would you please advise me as to the best material for the walls and floor for a squash rackets court and also supply any other particulars of interest.*

"*Is a concrete floor satisfactory; or, alternatively, a jointless floor? If boards are best, is there any other board as good as maple, without its disadvantage of swelling and lifting at the joints?*

"*Is the wall finish in cement and parian satisfactory, or again, if boards, can plywood be used and how can the jointing difficulty be overcome? I want the best method for each surface regardless of cost.*"

The floor should be resilient, so that neither concrete nor a jointless composition would be suitable—they might also suffer from sweating. There is no boarding so generally suitable as maple, and if laid in narrow widths, with provision for expansion next walls, there ought to be no trouble from swelling and lifting.

The walls should be finished with non-sweating plaster, a speciality made by one or two firms whose names could be obtained from The Sports Press, 43-44 Shoe Lane, E.C.4. The portion of the wall under the playboard should be covered with sheet metal or similar resonant material to signify when the ball is out of play. There should be no skirting, cove, or angle fillet on the playing surface, and all doors must be flush and must not have any projecting ironmongery.

Presumably the querist is acquainted with the planning, lighting and arrangement for spectators.

E. G.

Sound Insulation

¶ W. and J. write: "*We have a glazed screen to erect and are anxious to make it as sound-resisting as we can without going to the extent of double glazing, or incurring too much expense in other ways. Would you please let us know whether any noticeable benefit would be derived from using plate glass bedded in washleather instead of sheet glass. Also would you let us have any other information as to simple and inexpensive expedients.*"

The principal requirements for sound insulation in construction are:—

A: Mass.
B: Rigidity.
C: Laminated and separated construction.

In the case in question, it is not possible to rely upon mass or laminated construction, in which inertia effects of rigid lamination are combined with the sound absorption effects of flexible porous interiors.

Great care should, however, be taken:

1: To make the construction reasonably airtight.

2: To make the construction rigid. This is of very considerable importance and deep sections for the studding or vertical members of the frame should be adopted with the object of increasing the resistance of the screen to deflection under acoustic pressures.

3: Heavy plate glass set in washleather is preferable to sheet glass and small panes are preferable to large panes, provided the framing is rigid.

If a high degree of sound insulation is required, such as that necessary to insulate ordinary conversation, which is of an average level 60 db. above threshhold, rigid laminated construction should be adopted, with double glazing, each outer surface being entirely independent without structural contact or bridging pieces. The interior air space should be loosely filled with a sound absorbing quilt of eelgrass, asbestos blanket or acoustic down.

Half measures in soundproof construction are always disappointing.

C. W. G.

SOCIETIES AND INSTITUTIONS

MANCHESTER ARCHITECTS AT DINNER

THE annual dinner of the Manchester Society of Architects was held on Friday, January 20, at the Masonic Temple, Manchester.

Mr. J. Hubert Worthington, O.B.E., M.A., F.R.I.B.A., President of the Manchester Society of Architects, proposed the toast of the R.I.B.A., coupling with it the names of Sir Raymond and Lady Unwin. He spoke of the great and widespread influence of the Institute, and referred to its educational work and its many activities of public service. Mr. Worthington also referred to the recent death of his predecessor in office, Mr. J. Theo. Halliday. The Society had never had a better president, nor had Manchester ever had a more public-spirited architect to help it in an advisory manner.

Sir Raymond Unwin, in his reply, said: *The R.I.B.A. are about to contribute £20,000 to the Chancellor of the Exchequer, for, in proceeding with our new building, this amount will be saved to the country in unemployment pay, and this fact has largely influenced the Institute in making its decision.*

I am proposing to call a conference in London to see what part can be played by the Building Industry in setting the wheels of commerce in motion again. I am not certain that it is the best thing for architecture and the Building Industry that the subject of housing should be so much a political one. I would like to see created a great Housing Board which would handle the problem consistently and in conjunction with the improvement of old houses and slum clearance. As the basis of family life there should be a decent house for each family.

In the past architects have kept apart from builders, and both have kept apart from the makers of materials. Today they are trying to create a Council for the whole building trade, who should meet in an effort to make a more efficient industry for carrying out the building works which the country require.

Other speakers included Major Harry Barnes, F.R.I.B.A., the Bishop of Middleton, Mr. Francis Jones, F.R.I.B.A., and Mr. T. D. Barlow, President of the Manchester Chamber of Commerce.

NOTTS., DERBY AND LINCOLN ARCHITECTS' ANNUAL DINNER

The annual dinner of the Nottingham, Derby and Lincoln Architectural Society was held at Nottingham on January 19. The President, Mr. T. Cecil Howitt, D.S.O., F.R.I.B.A., who presided, in proposing the toast of "The Nottingham, Derby and Lincoln Architectural Society," said:—

Each year the work of the building contractor becomes more and more the work of a specialist, very similar in a way to the American methods. This indicates very clearly that the specialist who has devoted the whole of his time to one particular subject is obviously more equipped to deal with the problem that any person with just a casual knowledge. I would specially draw the attention of our civic representatives to this point so that, when they have a big engineering problem, they will see that it is carried out by a specialist engineer in that particular work, and, when they have an architectural problem, that they carry it out with an efficient and registered architect. This is the day of specialists.

When any new building is completed the owner is naturally so proud of it as compared with the accommodation it has replaced that it seems a most successful scheme. The real point in examining this new building is to ask whether it could have been made more efficient in arrangement, more attractive to look at, and erected at any less cost.

In my opinion the building of the future will still be erected with a steel frame. Electrical welding is, however, now playing such a prominent part that when this steel frame is welded into a monolith, its weight of metal and cost can be reduced some 30 to 40 per cent., thus marrying together the views of the steel specialist with those of the concrete specialist, and considerably reducing the cost of our buildings. The difficulty of keeping local bye-laws up to date is the biggest obstacle in producing more economic construction.

Other speakers included Sir Raymond Unwin, P.R.I.B.A., the Lord Mayors of

Nottingham and Lincoln, Messrs. Charles H. Calvert, A.R.I.B.A., H. A. Dickman, F.R.I.B.A., N. Denham Davis and Major Harry Barnes, F.R.I.B.A.

MASTER CARVERS' ASSOCIATION

The 35th annual dinner of The Master Carvers' Association was held at the Connaught Rooms, on Tuesday, January 24. The President, Mr. P. G. Bentham, A.R.B.S., occupied the chair. Mr. A. B. Knapp-Fisher, F.R.I.B.A., proposed the toast of the Association. Mr. W. Aumonier, in proposing the toast of "The Visitors," paid a tribute to the Architectural Press—represented by Mr. Maurice Regan. He expressed the appreciation of the Master Carvers for the great encouragement and stimulus the Architectural Press had given to the industrial arts of England.

Amongst the guests present were the following :—

Messrs. F. R. Yerbury, HON. A.R.I.B.A., A. B. Knapp-Fisher, F.R.I.B.A., E. Stone Collins, F.R.I.B.A. ; J. L. Denman, F.R.I.B.A. ; L. A. Culliford, F.R.I.B.A. ; Maurice Regan ; J. Stooke-Vaughan ; Lawrence Wright, B.A.ARCH. A.R.I.B.A. ; F. A. Richards, M.A., F.R.I.B.A. ; Colin Farmer, A.R.I.B.A. ; F. T. Bush, A.R.I.B.A. ; Wheeler Carmichael, A.R.I.B.A. ; and Col. J. E. Dixon-Spain, F.R.I.B.A.

LAW REPORT

OFFICIAL REFEREE AND AN UNNECESSARY ACTION

G. J. Abell v. *Imperial Hotel, Exmouth (1916), Ltd.—Official Referees' Court (High Court of Justice). Before Sir Francis Newbolt, K.C.*

THIS was an action in which the plaintiff, Mr. G. J. Abell, of Exmouth, sued as owner of the Imperial Hotel, Exmouth, to recover possession of the premises from the lessees, the Imperial Hotel, Exmouth (1916), Ltd., on the ground of breach of the covenant to repair.

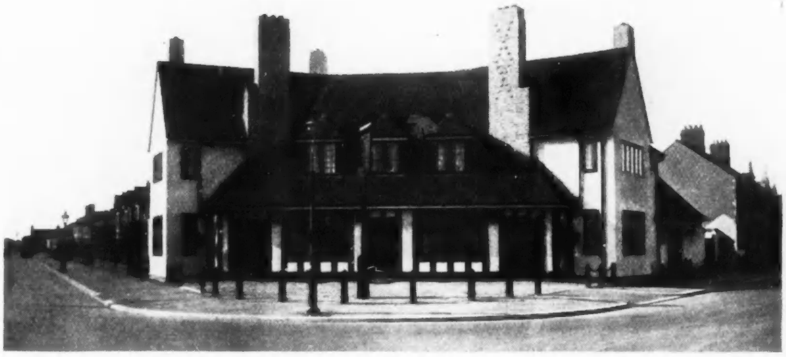
Mr. Croom Johnson, K.C., said his client considered that the defendants had not only failed to keep the premises in repair but had not carried out a notice which had been served upon them to carry out certain repairs.

Mr. Cave, K.C., for the defendants, denied the plaintiff's allegation, and said during the last five years the defendants had spent £2,000 in repairs. In 1929 his clients were served with a schedule of dilapidations and as the result of an action the defendants had carried out the repairs they undertook to do and paid £70 in settlement of the claim. His clients' reply to the present action was that the repairs now demanded were substantially the same as those covered in the High Court action, and under the circumstances, defendants were entitled to relief from forfeiture. In any case defendants had paid into Court £35 in satisfaction of plaintiff's claim and for the sake of peace.

Evidence was called for the defence that the hotel was now in a first class condition.

The learned official referee, in giving judgment, said the law was different now from what it was before March, 1928, as a lessor could not now obtain any damages for breaches of covenants for repair which did not diminish the value of the reversion. Here the hotel was a large one, held under lease at a rental of £500 per annum, and there had been two actions by the plaintiff for repair, who, being a builder, was familiar with such business. The claim to possession was hopeless and had been abandoned. The evidence was conclusive that the plaintiff could not recover damages. So far as he could see, the defendants were anxious to satisfy the lessor's demands and in his view the bringing of a second action against defendants within such a short period was vexatious and unnecessary. He had had evidence which showed that the hotel was in good condition, with no damage to the reversion, and therefore the plaintiff was not entitled to forfeiture. He considered the action premature and vexatious and he was sure if the plaintiff had met the defendants in a friendly way there need not have been any legal proceedings. He could not but think that plaintiff's real aim was to turn out the defendants or to harass them so that they would go. He gave judgment for defendants on the claim and counter-claim, with costs, and made an order for the money in Court to be paid out to defendants.

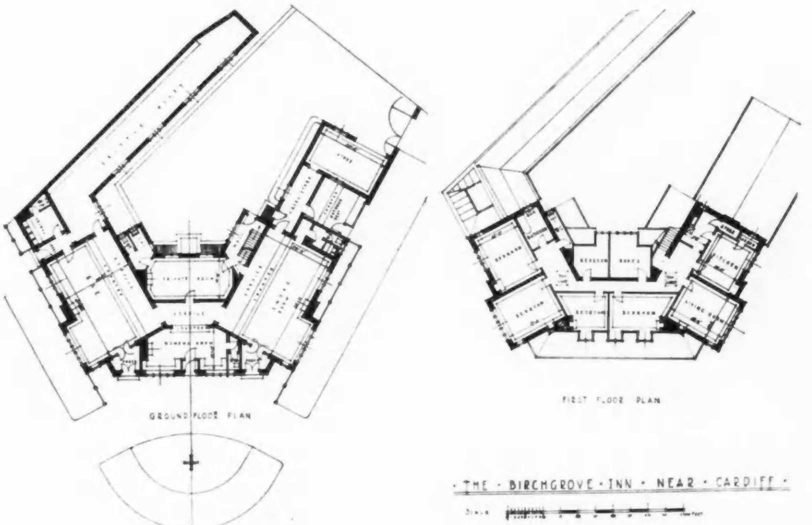
BIRCHGROVE INN, CARDIFF



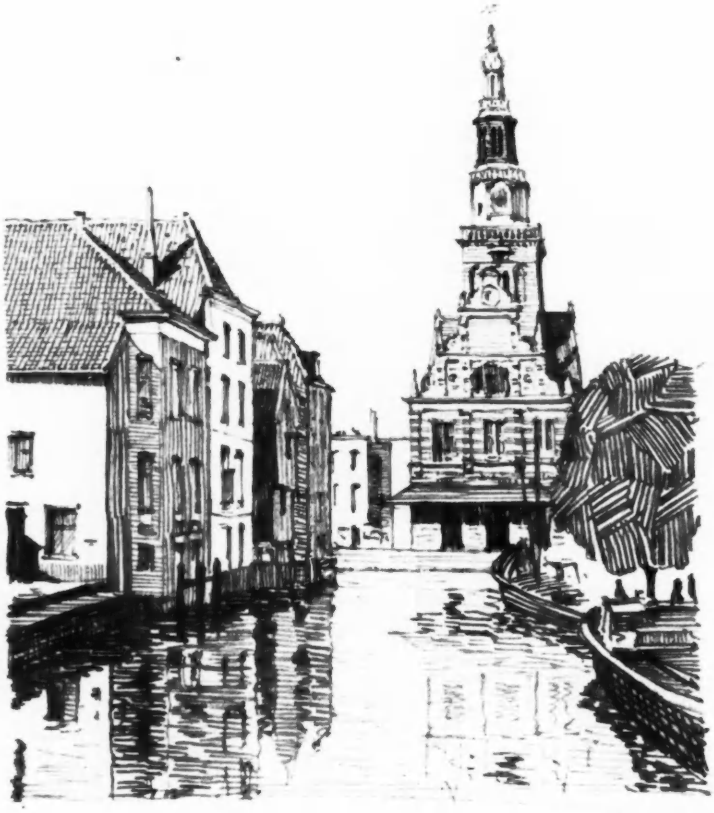
DESIGNED BY IVOR JONES AND PERCY THOMAS

This new inn, at the junction of four roads just outside the City of Cardiff, replaces an old building set right on a corner dangerous to motor traffic. The accommodation for the public is entirely on the ground floor, and consists of a large public bar, a smoke room, and a separate bar for women. A skittle alley is arranged adjoining the public bar, so that it can be served by the same attendant. An off-licence department is provided, and the building is planned so that the landlord has a private room on the ground floor and also exercises complete control and supervision of the services from behind the counter. The first floor is devoted to private accommodation for the landlord and his staff, with a separate entrance at the rear.

The building is constructed of brickwork, finished with stucco in white cement. The roofs are of hand-made sand-faced tiles, and the chimneys of brindled bricks. The windows throughout are metal casements in oak frames, fixed flush with the stucco. The interiors of all the public rooms are panelled in oak, with oak settles, window seats and bar fittings.



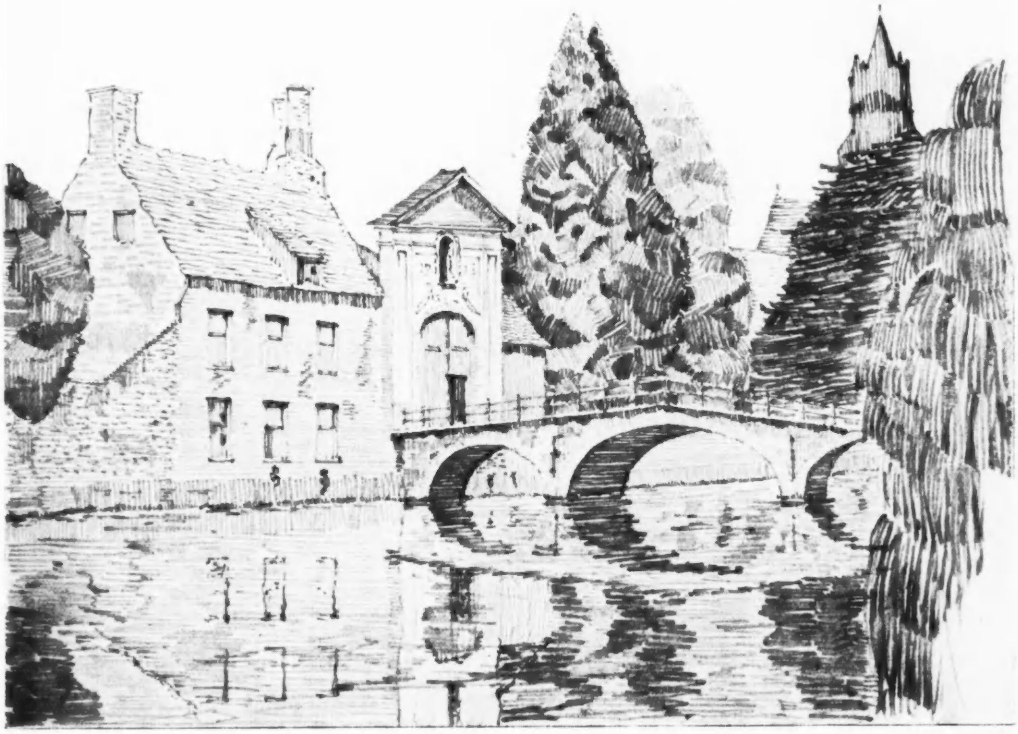
THE
SKETCH
CLUB



(6″ × 4¼″)
Weigh-House and Waterway, Alkmaar, Holland.

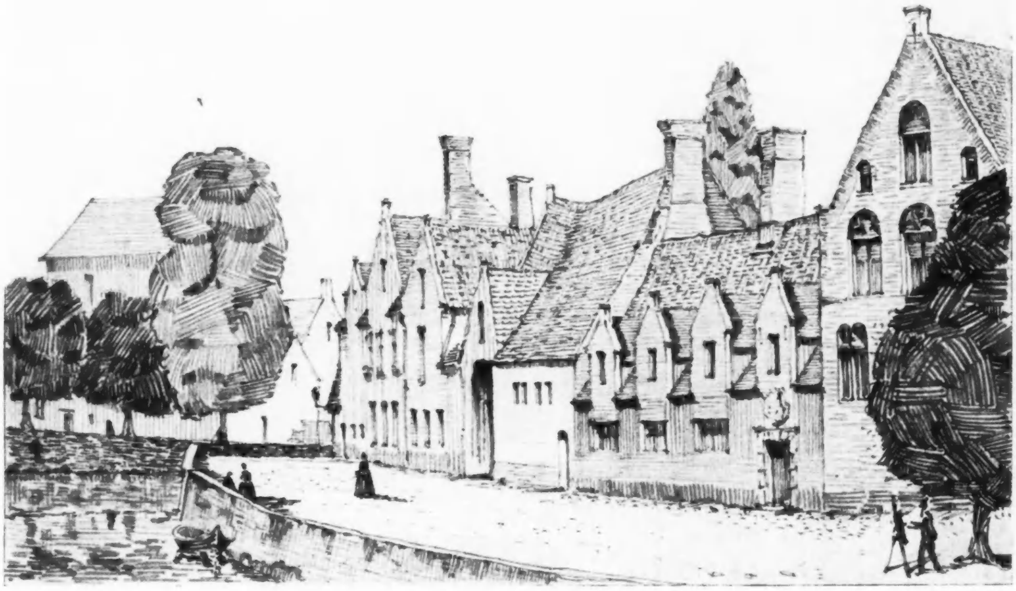
SIXTY-FIRST SESSION

PENCIL DRAWINGS BY JOHN MANSEL



(5⅛″ × 6″)

Entrance to the Béguinage, Bruges, Belgium.



(5¼″ × 7¾″)

The Maison du Pélican, Bruges, Belgium.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

Laboratory, 47 Wimpole Street, W.1 (page 173). General contractors, E. H. Burgess. Sub-contractors : Tyler and Freeman, electrical work ; Leyland and Birmingham Rubber Co., Ltd., rubber flooring ; Crittall Manufacturing Co., Ltd., windows ; Waygood-Otis, Ltd., lifts ; Considere Construction Co., Ltd., reinforced concrete staircase ; Carter & Co., tiling ; Allenson, Ltd., joinery ; J. P. White, doors ; Leeds Fireclay Co., Ltd., sanitary fittings ; Baird and Tatlock, sinks and sanitary fittings ; Jas. Gibbons, Ltd., door furniture.

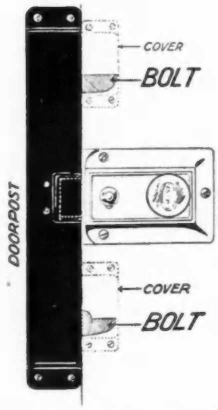
Completion of the London County Hall : Section D (pages 174-177). Generalcontractors, Gee, Walker and Slater, Ltd. Surveyors : J. Leaning and Sons and J. Rider, Hunt & Co. Stone carving : C. H. Mabey. Wood carving : A. H. Wilkinson. Consulting engineers for steelwork : Whitaker, Hall and Owen. Sub-contractors: Holloway Bros. (London), Ltd., extension of the raft foundation and the erection of the retaining walls ; Henry Hope and Sons, Ltd., steel casement windows and door furniture ; A. D. Dawnay and Sons, Ltd., constructional steel ; Fenning & Co., Ltd., granite ; Ames and Finnis, roofing tiles ; Morris-Singer Co., cast lead gutters, rain water pipes and heads ; South Western Stone Co., Ltd., Portland stone ; J. A. King & Co., Ltd., pavement lights ; Acme Flooring and Paving Co. (1904), Ltd., wood block flooring ; F. Braby & Co., Ltd., copper covering to dormers ; James Walker, Ltd., decorative plasterwork ; J. Whitehead and Sons, Ltd., Hopton Wood stone ; Birmingham Guild, Ltd., bronze work ; Luxfer, Ltd., galleries and book stacks in the education library ; Bellman, Ivey and Carter, Ltd., scagliola marble columns ; H. H. Martyn & Co., Ltd., wrot-iron gates and railings ; Paint and Cellulose Spraying Co., Ltd., special decorations in the conference hall ; Patent Impermeable Millboard Co., Ltd., acoustic panelling in the conference hall ; May Acoustics, Ltd., "Maycoustic" felt ; Best and Lloyd, Ltd., Galsworthy, Ltd., and Osler and Faraday, Ltd., electric light fittings to main floor ; D. Burkle and Sons, Ltd., joinery ; General Electric Co., Ltd., Edison Swan Electric Co., Ltd., and James Gibbons, Ltd., electric light fittings ; James Gibbons, Ltd., roadway gates, window grilles, railings and hardware ; Joseph Avery & Co., dark blinds ; Waygood-Otis, Ltd., electric lifts ; Hobbs, Hart & Co., Ltd., locks ; Gillett and Johnson, Ltd., electric clocks ; Roneo, Ltd., card index cabinets ; Robert Adams, floor springs ; Blunt and Wray, Ltd., skeleton clock dials ; Richard Crittall & Co. Ltd., Norris Warming Co., Ltd., G. N. Haden and Sons, Ltd., and J. Jeffreys & Co., Ltd., main heating and ventilation, hot water services and steam ; Shanks & Co., Ltd., sanitary fittings ; Burn Bros. (London), Ltd., drainage fittings ; Benham and Sons, Ltd., cooking apparatus ; Keystone Paint and Varnish Co., Ltd., "Kenstona" paint, etc. ; Ferodo, Ltd., stair treads ; Haywards, Ltd., escape stairs ; A. L. Gibson & Co., Ltd., revolving shutters ; Mather and Platt, Ltd., storage tanks ; British Vacuum Cleaner and Engineering Co., Ltd., vacuum cleaning plant ; Automatic Sprinkler Co., Ltd., sprinklers.

Bentall's Store, Kingston-on-Thames (pages 178-9 and supplement). General contractors, John Mowlem & Co., Ltd. ; L. A. Turner, carving. Sub-contractors : Redpath, Brown & Co., Ltd., steel construction ; Art Marble, Stone and Mosaic Co., Ltd., marble floor and steel linings ; Diespeker & Co., Ltd., hollow tile floors and concrete beam casings ; Automatic Sprinkler Co., Ltd., fire sprinkler installation ; Bath and Portland Stone Firms, Ltd., stone facing ; Lawford Asphalte Co., Ltd., asphalt ; Tucker Armoured Plywood Co., Ltd., armoured plywood stanchion casings ; Samuel Haskins and Bros., Ltd., fireproof shutters ; Electrical Installations, Ltd., electrical installation ; Davidson & Co., Ltd. heating and ventilating ; F. Sage & Co., Ltd., shop fronts and bronze balustrades ; Crittall Manufacturing Co., Ltd., and F. A. Norris & Co., Ltd., metal sashes ; Morris-Singer Co., laylights and ornamental metal glazed door panels ; Haywards, Ltd., metal lantern lights ; Aldous and Campbell, Ltd., service lifts ; Merryweather and Sons, Ltd., hydraulically operated metal raising partitions ; May Acoustics, Ltd., acoustic plastering ; Adrian Stokes & Co., wrot-iron balustrades ; Frazzi, Ltd., Paropa roof covering ; Carter & Co. (London), Ltd., wall tiling and tile floors ; J. and E. Hall, Ltd., escalators and goods lift ; Dent and Hellyer, Ltd., sanitary fittings ; Lamson Stone Service Co., Ltd., pneumatic cash tubes installation and letter box and chute ; Bostwick Gate and Shutter Co., Ltd., collapsible gates ; Hermon Cawthra, decorative frieze in mannequin hall.

Birchgrove Inn, Cardiff (page 183). General contractors, F. J. Thomas and Sons, Ltd. Sub-contractors : McNeill & Co., Ltd., Leadonite ; Western Trinidad Lake Asphalt Co., Ltd., asphalt ; Phœnix Brick Co., Ltd., bricks ; Thos. Exley and Sons, Ltd., tiles ; Hallett Flooring Co., wood block flooring ; J. G. Proger and Sons, Ltd., central heating ; Leonard Padfield, grates, sanitary fittings and mantels ; S. A. Brain & Co., Ltd., electric wiring ; James Gibbons, Ltd., door furniture ; John Williams and Sons (Cardiff), Ltd., casements and window furniture ; Cardiff Corporation, water supply.

Mr. Percy Leslie Waterhouse, of Epsom, retired architect, left £21,515 (net personalty £18,837).

TRADE NOTES



A drawing of the lock described in the note below.

Automatic Locks, of 9 Berkeley Square, Mayfair, have recently marketed a patent burglar-proof lock. This new lock, it is claimed, not only fastens the catch, but also simultaneously and by the mere slamming of the door securely bolts it top and bottom. The accompanying illustration indicates the working of the bolts. The same key, turned in the same way, operates both lock and bolts, the difference being that whereas with the ordinary door latch it is quite a simple matter to force the door back towards its hinges and so release the catch, with this new lock, as the bolts work in the opposite direction to the latch, any forcing of this kind should defeat its own object.

Besides forcing a door back against its hinges and so releasing its fastening, whether of latch or mortice variety, the commonest line of action for a burglar to take is to cut a hole in the panel of the door, through which the hand may be slipped and so the catch opened from inside. In this new lock, however, this has been circumvented by a dead-lock device. All the householder has to do, when leaving the premises entirely unoccupied, is to put his key in the door, after he has slammed it behind him, and give it a single turn in the opposite direction to that which opens it. This action, it is claimed, renders it impossible to open the door from the inside.

A further device is also incorporated with the complete door set. This is a bolt operated by a key which, after the door has been bolted, is removed. This prevents a burglar, who has made his entry by a window, from securing his get-away by the obvious means of unlatching the front door. This bolt is not shown in the illustration, but forms a very important part of the complete lock. Further particulars are obtainable from the firm at the address given above.

*

We regret that in our last issue the name of Messrs. Rhodes, Brydon and Youatt, of Stockport, was incorrectly printed.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at ACTON: Factory, Standard Road, for Mr. F. E. Simpkins: alterations to factory, Park Royal Road, and factory, Acton Lane, for Mr. F. E. Smpkins: extension to works, Standard Surgical Instrument Manufacturing Co., Ltd., Westfields Road, for Corolite Construction, Ltd.: 17 houses, Willesden Lane, for Mr. W. Atkinson: additions, Park Royal Road, for Mr. W. E. Matchett.

The BERMONDSEY B.C. is to erect 10 cottages in Rotherhithe Street, at a cost of £5,250: 82 flats in Vauban Street, at £44,000: and 11 flats on the Millpond estate, at £6,220.

The Lincoln Street Housing Co., Ltd., is to erect 34 flats in Lincoln Street, BOW.

Plans passed by the CROYDON Corporation: Two houses, Warminster Road, for Mr. P. Richardson; two houses, Bridle Road, for Mr. A. D. Reith; five garages and flat, Spring Park Road, for Mr. H. Miller: 117 houses, Ockley Road and Sheldon Road, for Mr. H. Macintosh: 12 houses, Davidson Road, for Houselands, Ltd.: 24 garages, rear 11 Tavistock Road, for Vesta Finance, Ltd.: five houses, The Glade, for Messrs. Wylie and Berlyn, Ltd.: six houses and two bungalows, Wickham Road, for Mr. R. W. Trent: five houses, Storrington Road, for Mr. F. H. Willcocks.

The CROYDON Corporation has prepared a scheme for electricity development, including the extension of mains, plant and buildings, at a cost of £104,000.

Plans passed by the DEPTFORD B.C.: Offices, Tarry Lane, for Mr. A. Keefe: blocks of flats, Avingdon Road, for Messrs. Gee, Walker and Slater, Ltd.: dwellings, Evelyn Street, for Messrs. Henry Boot and Sons, Ltd.: factory, Mantle Road, for Mr. H. A. Scrase.

The EALING Corporation has approved plans submitted by Greenford Estates, Ltd., Costons Lane, Greenford, for the erection of 72 flats in Wordsworth Avenue: 12 flats in Chaucer Road; 28 flats in Shelley Avenue: and 44 in Shelley Close.

Plans passed at EALING: 43 houses, Clauson Avenue and Russell Road, for Messrs. W. Gradwell & Co.: four houses, Priory Gardens, for Messrs. R. Lancaster and Sons, Ltd.: two bungalows, Marnham Crescent, for Mr. J. M. Wilson: 24 houses, Rydal Crescent, for Messrs. R. Lancaster and Sons, Ltd.; 12 shops, North Circular Road, for Messrs. R. Lancaster and Sons, Ltd.; additions to two shops, Bilton Road, for Messrs. Percy Bilton, Ltd.: 13 houses, Tavistock Avenue, for Mr. A. E. Murdoch; 10 houses, Lynwood Road, for the London and Provincial Building Co.: 10 houses, Westvale Terrace, for Messrs. R. Fielding and Son; nine houses, Bideford Avenue, for Messrs. R. Fielding and Son; 20 houses, Ruislip Road, for Mr. R. A. C. Churchward: five houses, Perivale Lane, for Messrs. W. H. Read & Co., Ltd.; three houses, Corringway, for Messrs. Haymills, Ltd.; 11 shops, Ruislip Road, for The Morris Estates, Ltd.: hall, Green Man Passage, for Mr. E. E. Farrant.

The EAST HAM Corporation has approved revised plans for the erection of 88 houses and flats on the Gooseley Lane site, at an estimated cost of £37,000.

SOUTHERN COUNTIES

Plans passed by the BEXHILL Corporation: Three houses, Southlands Avenue, for Messrs. Bowcock and Jeffery; three houses, Cooden Drive, and development of land off Hastings Road, for Mr. J. E. Maynard: house and shop, Turkey Road, for Mrs. E. L. Earl.

The BRIGHTON Corporation proposes to complete the Whitehawk estate by the erection of a further 280 houses, estimated to cost £300 each.

Plans passed by the BRIGHTON Corporation: Hotel, Lewes Road, North Moulsecoomb, for Kemp Town Brewery Co.; six houses, Hillbrow Road, Withdean, for Mr. T. R. Braybon; eight houses, Henley Road, for Messrs. T. J. Braybon and Son: 18 bungalows, Barrhill Avenue, Patcham, for Messrs. G. Ferguson and Son: church, Colbourne Avenue, Moulsecoomb, for Bishop of Chichester: four houses, Princes Terrace, for Mr. J. W. Holloway.

Plans passed at BOURNEMOUTH: Shops and flats, Exeter Road, for Mr. F. F. Tarrant: two houses, Pensbury Estate, for Mr. J. Park: alterations and additions, 154 Old Christchurch Road, for Messrs. Curry's, Ltd.: offices and stores, Wickham Road, for The Provident Direct Supply Stores; 10 shops, Holdenhurst Road, for Mr. A. S. H. Whitelock: two houses, Wimborne Road, Moordown, for Mr. W. H. Willoughby; offices and works, Richmond Hill, for The Southern Newspapers, Ltd.: two houses, Winston Road, for Mr. L. H. Lockyer: two houses, Winsley Avenue, for Mr. A. Bedford: two shops, Pokesdown Hill, for Mr. H. V. G. Wallis: eight houses, Corhampton Road, for Mr. F. Holt: 13 houses and shops, Pokesdown Hill, Iford Estate, for Mr. W. Carlton: two houses, Oxford Avenue, for Mr. A. Richards: four houses, Bradpole Road, for Mrs. M. E. Lee: house and shop, Tuckton Road, for Mr. Williamson.

Plans passed at DARTFORD: Two houses, Princes Road, for Mr. G. H. Giles: seven houses, Dartford Road and Havelock Road, for Mr. F. F. Marsh; two bungalows, East Hill, for Mr. W. R. Mackney; 152 houses, Hallford Village, for Mr. W. J. Brise.

SOUTH-WESTERN COUNTIES

Plans passed by the PAIGNTON U.D.C.: Four houses, Old Dartmouth Road, for Mr. Collings: eight houses, Marldon Avenue, for Messrs. Coombe and Sons: 35 houses, Dartmouth Road, for Major Waycott; house, Shorton Lane, for Mr. R. C. Rees; six shops, Manor Road, for Mr. Cole.

EASTERN COUNTIES

Plans passed by the YARMOUTH Corporation: Four houses, Suffolk Road, and four houses, Roslyn Road, for Messrs. H. R. Middleton & Co., Ltd.: six houses, Western Road, for Mr. W. Downing; four houses, Bernard Road, for Mr. F. A. Osborne; eight houses, Victoria Road, for Messrs. Moore and Sons: two houses, Arnott Avenue, for Mr. R. Chaston: ten houses, Burgh Road, for Mr. B. G. Beech.

MIDLAND COUNTIES

Plans passed by the KETTERING U.D.C.: Two houses, Russell Street, and seven houses, Cowper Street, for Messrs. F. G. Barlow (Builders), Ltd.: factory alterations, Dalkeith Court, for Messrs. F. H. and H. S. Pochin, Ltd.: 11 garages, off Pytchley Road, for Messrs. A. P. Lewis and Son, Ltd.: two houses, London Road, for Mr. C. W. Miller.

Plans passed at STOKE-ON-TRENT: 19 houses, Ashlands Avenue, Harpfields, for the Harpfield Estate Co.; works, mill, etc., Acres Wood, near Bradeley, for Messrs. Wilkinson Bros.; two houses, Chell Heath Road, Chell Heath, for Mr. N. Hewitt; 28 houses, Bank Top Farm Estate, Burslem, for Messrs. J. H. Broadhurst and Son; four houses, Longton Road, Bucknall, for Mr. A. Lilley; four houses, Blurton Road, Fenton, for Mr. J. Barber; two houses, 'Sneyd Street, Hanley, for Mr. J. Jackson; alterations and additions, Shelton New Road, Basford, for the Co-operative Model Dairy: two houses, Stone Road, Trentham, for Mr. J. E. Robinson: four houses, High Street, Norton, for Mr. J. Smith; four houses, Sandon Road, Meir, for Mr. D. Shone: two houses, Star and Garter Road, Longton, for Messrs. J. E. Simester & Co.; 18 houses, Station Road, Goldenhill, for Messrs. Williams and Davis: conversion of office into shop, Tontine Square, for Messrs. G. Goodson and Son; four houses, Longton Road, Bucknall, for Mr. A. Lilley; alterations to block of houses, Kensington Road, Oakhill, for Mr. E. Jones: 21 houses, New Inn Lane, Trentham, for Mr. A. Perry; eight houses, St. Chad's Street, for Messrs. Taylor, Shaw and Bromley: 20 houses, Bank Hall Road, for Messrs. J. H. Broadhurst and Sons.

Plans passed by the WOLVERHAMPTON Corporation: Two houses, New Road, Oxley, for Mr. P. Gibbins; premises, Snow Hill, for Horton Estate Co.: four houses and shops, Cobden Lane, for Wolverhampton and Dudley Breweries, Ltd.: five shops and houses, Dudley Road, for Messrs. H. and J. N. Patten; two houses, Prestwood Road, for Mr. T. H. Ashbury: 19 houses, Cartwright Street, for Mr. H. Grindley; alterations, Queen Street and Cheapside, for Wolverhampton Freeholders Building Society: house, Trysull Road, for Mr. John Cutler: two shops, Cleveland Street, for Messrs. Billingham, Ltd.: four houses, Manor Road, for Messrs. Pidgeon Bros.; foundry extensions, Bloomsbury Street, for Messrs. C. and B. Smith: shop, Bilston Road, for Mr. A. J. Morris; two shops, Penn Road, for Mr. H. Hitchen; three houses, Rowan Crescent, for Mr. E. Leach; three houses, Bilston Road, for Mr. E. Collins.

NORTHERN COUNTIES

The BOOTLE Corporation has sanctioned a scheme submitted by Messrs. Williams and Kelly for the development of land in Southport Road and Aintree Road by the erection of 83 houses.

Plans passed at BOOTLE: Four houses, Fernhill Avenue; extension of office, Miller's Bridge: conversion of Talbot Hotel, Derby Road, into two houses: four houses, Oxford Road: 17 shops, Stanley Road and Merton Road.

Plans passed at CARLISLE: Seven houses, Duke Street, for Mr. H. Foxall: two houses, St. James's Road, for Messrs. J. and R. Bell, Ltd.: two houses, Warwick Road, for Mr. E. J. Hill; 21 houses, Dale Street, for Mr. S. W. B. Jack; six houses, Scawfell Road, for Mr. W. C. Johnston; house, Brampton Road, for Mr. Tiffen.

Plans passed by the CHESTER Corporation: 25 houses, Canadian Avenue, Hoole, for Messrs Amos, Ltd.: three houses, Brook Lane, Newton, for Mr. W. A. Davies; alterations, Shakespeare Inn, Foregate Street, for Bents Brewery Co., Ltd.

The HYDE Corporation has prepared a modified scheme for the erection of 38 houses on the Back Bower site.

The RAWTENSTALL Corporation has received sanction to borrow £20,400 for the provision of houses on the Lower Carr Farm Estate.

The SHEFFIELD Corporation has passed estimates of £534,680 for the erection of 1,532 houses for the period 1933-34.

The SOUTH SHIELDS Corporation is to proceed with clearance schemes at Laygate Square and Drake's Street.

Plans passed by the SOUTH SHIELDS Corporation: 20 bungalows, Central Avenue, for Mr. F. W. Newby; five houses, Osborne Avenue, house and shop, Eccleston Road, and alterations, Turf Inn, Green Street, for Messrs. T. A. Page and Son: alterations to school, Westoe Village, and flats, John Clay Street, for Mr. Howard Hill.

Plans passed by the STRETFORD U.D.C.: Eight houses, Seymour Grove, for Messrs. Smith and Alcock; flats, Birch Avenue and Stretford Road, for Residential Flats, Ltd.; office extension, Trafford Park Road, for Messrs. M. Kilvert and Sons, Ltd.; shops, 57 and 65, King Street, for Mr. A. Shaftsby.

The TYNEMOUTH Corporation urges the necessity for the provision of a new administration block at the Moor Park Hospital, and is seeking a grant for the scheme, which is estimated to cost £12,000.

WALES

Plans passed at SWANSEA: Four houses, Carmarthen Road, Fforestfach, for Mr. W. Morgan; house and shop, Mayhill Road, for Mr. W. E. Williams; three houses and shops, Llangyfelach Road, Brynhyfryd, for Mr. M. A. Harries; house and shop, Townhill Road, for Mr. C. S. Kenwood.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A_1	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
⅜" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
⅜" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	0	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	0

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
,, green ,,	,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	$\frac{3}{16}$" AA.	$\frac{3}{16}$" A.	$\frac{3}{16}$" B.	¼" AA.	¼" A.	¼" B.	⅜" AA.	⅜" A.	⅜" B.	½" AA.	½" A.	½" B.
Qualities	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES	Per cent.		Per cent.
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					3¾
,, ,, 26 oz. ,, ,, ,,	,,					4½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	†3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay add	,,		3	0
If in underpinning ,,	,,		5	0
Digging, return, fill and ram ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	10	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
½" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1½" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	0
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	6	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	0
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	,,		10½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

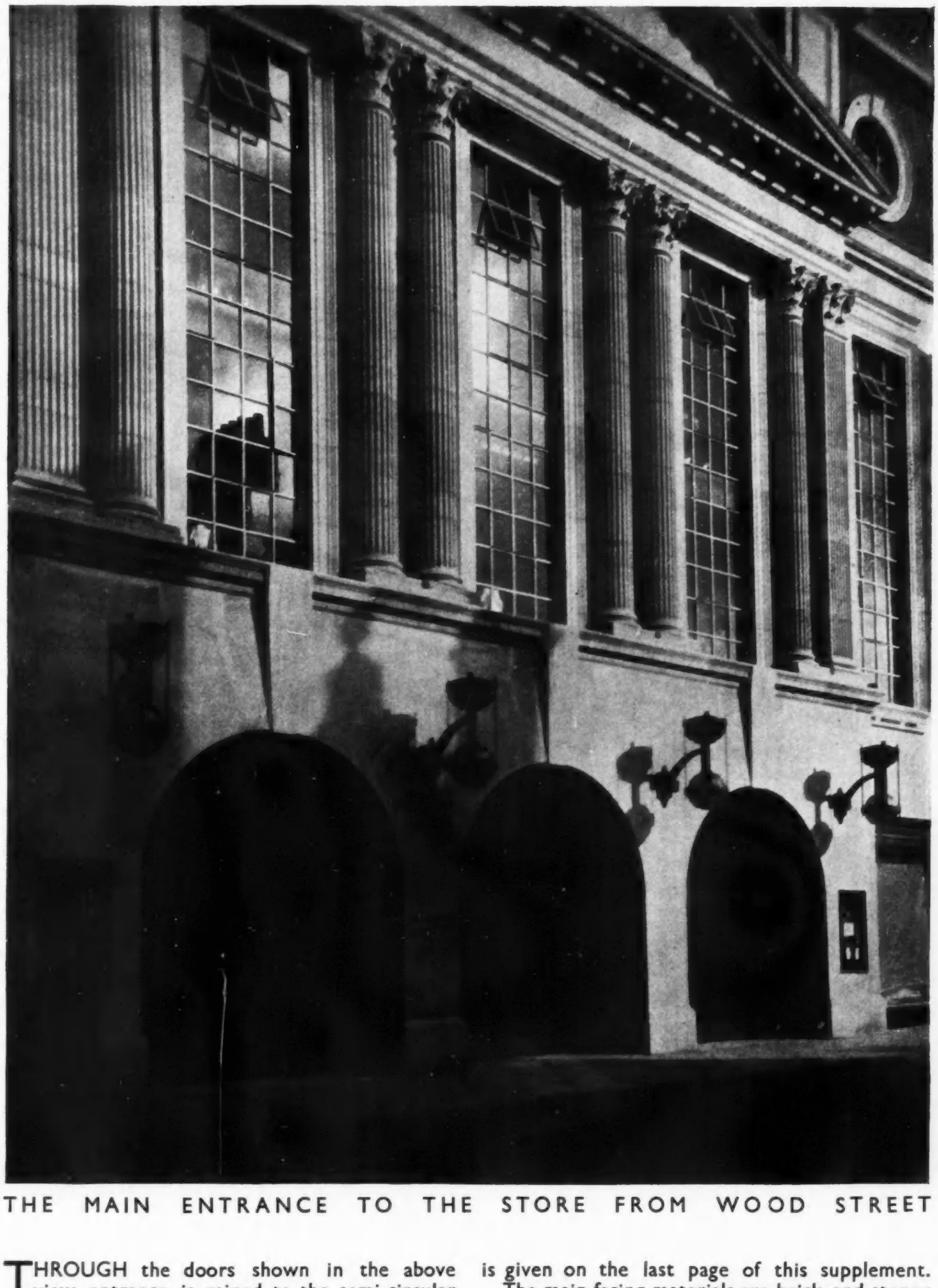
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	,,	2	9

Supplement to THE ARCHITECTS' JOURNAL for February 1, 1933

BENTALL'S, KINGSTON-UPON-THAMES

THE NEW CENTRAL SECTION: : SIR ASTON WEBB AND SON, ARCHITECTS



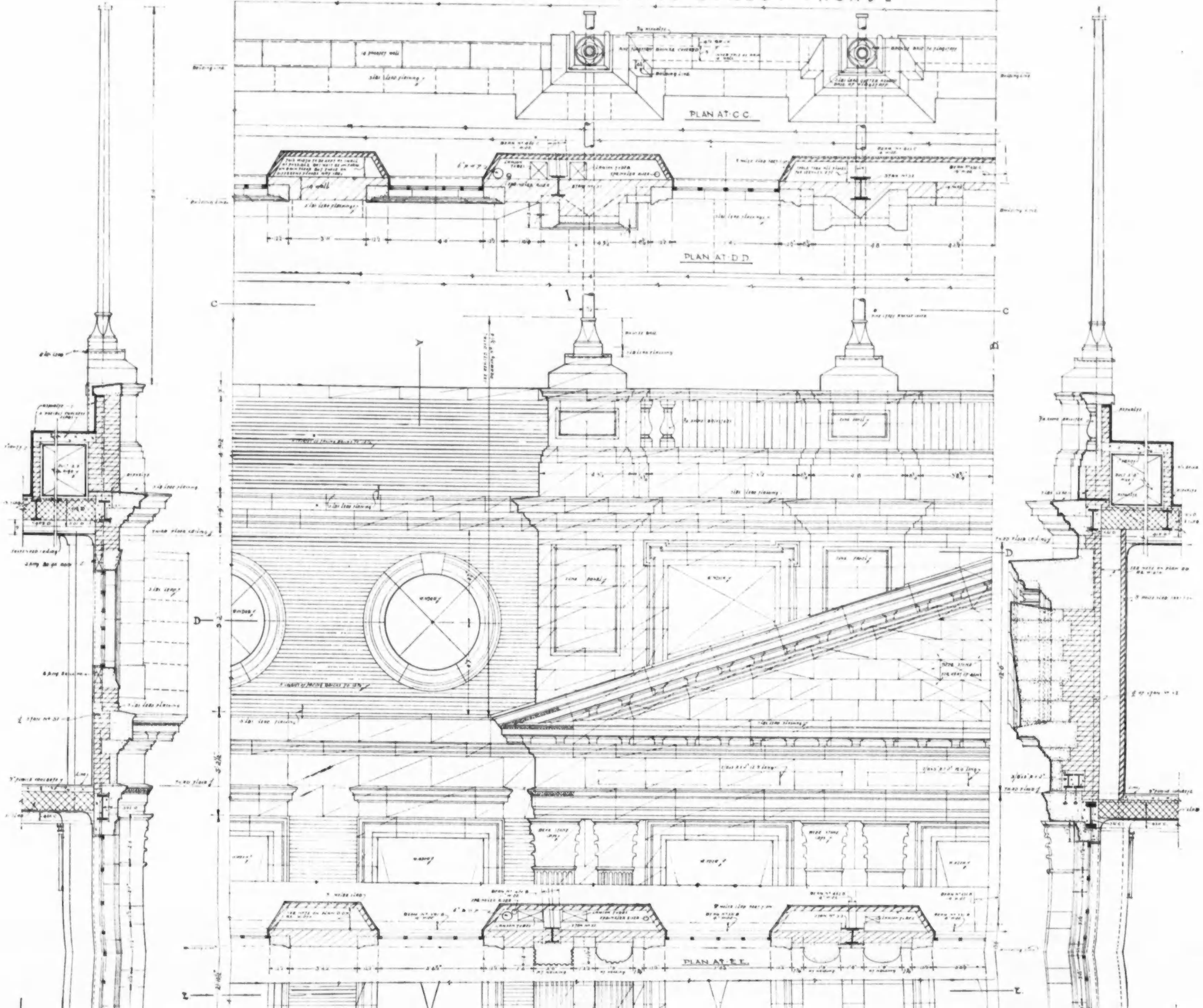
THE MAIN ENTRANCE TO THE STORE FROM WOOD STREET

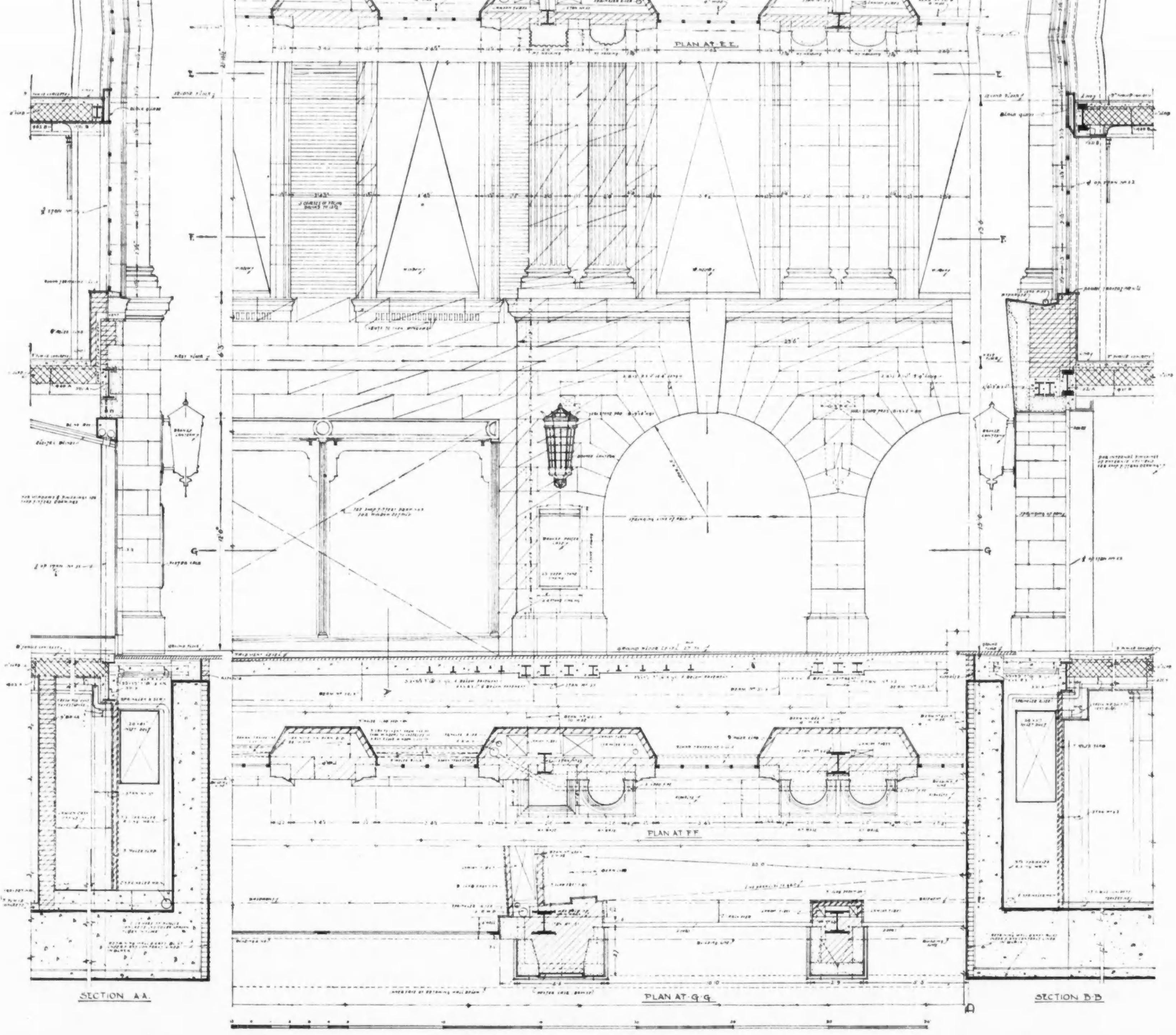
THROUGH the doors shown in the above view entrance is gained to the semi-circular entrance-hall illustrated elsewhere in this issue. The large-scale drawing reproduced overleaf gives details of the centre bay of this façade, while a plan of the whole building, existing and new, is given on the last page of this supplement.

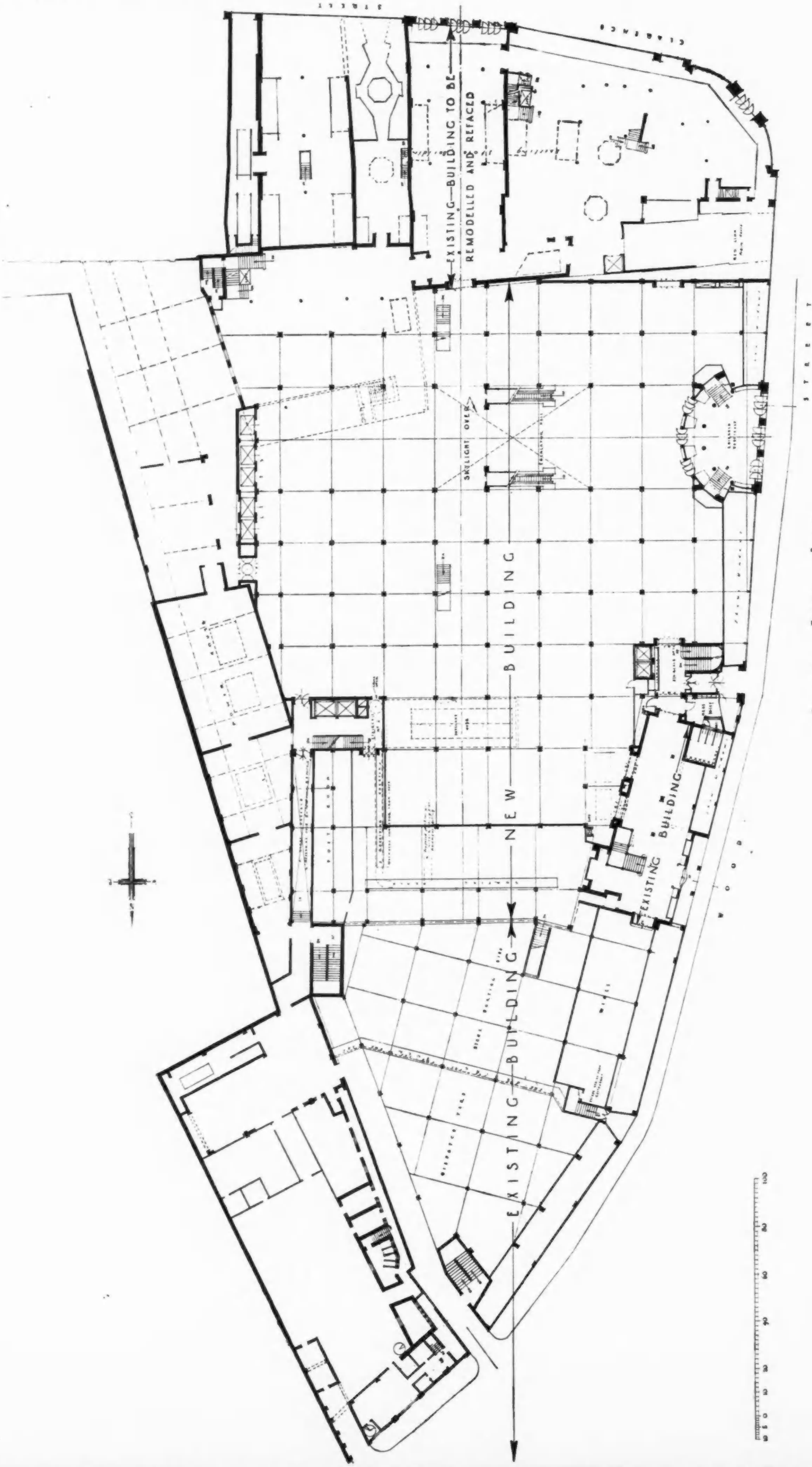
The main facing materials are brick and stone; the capitals to the columns are of Beer Stone. The lanterns and poster cases are of bronze and so are the bases for flagstaffs, which are themselves of pine, bronze-cased.

Supplement to THE ARCHITECTS' JOURNAL for February 1, 1933

· MESSRS BENTALLS LIMITED · KINGSTON · UPON THAMES
HALF INCH DETAIL · CENTRE BAY · WOOD STREET FACADE ·


PLAN AT C.C.
PLAN AT D.D.
PLAN AT E.E.
C
C
D
D
E
E


PLAN AT E-E
E
F
G
SECTION A-A
PLAN AT F-F
PLAN AT G-G
SECTION B-B
D


STREET
CLARENCE
EXISTING—BUILDING TO BE REMODELLED AND REFACED
STREET
SKYLIGHT OVER
NEW BUILDING
EXISTING BUILDING
WOOD
EXISTING—BUILDING
0
10
20
30
40
50
60
70
80
90
100

GROUND FLOOR PLAN

IN

CLASSROOMS :

Area per pupil :
B. of E. recommendation . . . 16 sq. ft.
minimum . . . . 14 sq. ft.
size of desk :
depth. . . . . 29"–31".
width. . . . . 21"–24".
gangways between desks . . . . 15"–16".
space between desks, front of one to back of next. . 2".
distance from front desk to blackboard. . 7'6".

Aspect.. south-east.
pupils face south-west.

ASSEMBLY HALL.

Area per person. . . . . 6 sq. ft.
for fewer than 150 persons . . 8 sq. ft.

GYMNASIUM.

Standard size (class of 30) . . . . . 60'0" × 30'0".
minimum . . . . 50'0" × 25'0".
ceiling, flat . . . . 16'0" high.

LABORATORY. (Physics).

space per pupil. . . . . 32 sq. ft.
tables (in preference to long benches) 3'6" sq.
tables against walls in units . . . . . 6'0" × 2'0".
demonstration benches . . . . 12'0" × 2'0".
minimum length. . 10'0".
Preparation room . . . . 230 sq. ft.

LABORATORY. (Chemistry.)

single benches. . . . . . 2'0" wide. 3'0" workspace
double benches. . . . . 3'6" wide. 4'0" workspace
double benches should be free at both ends.

ART ROOM.

Area per pupil. . . . . 30 sq. ft.
aspect. . . . . north or north-east.

DOMESTIC SCIENCE ROOM.

Area per pupil. . . . . 30 sq. ft.
minimum width of room . . . . 24'0".
tables to be movable . . . . . 6'0" × 2'6" × 2'6" high.
table space . . . per pupil . . . . 3'0".

LECTURE ROOMS.

Area per pupil . . . . 14 sq. ft.
seating in tiers about 2'9" wide, each step 7".
benches, length per pupil 1'10".
width. . . . . 12".

MUSIC (PRACTICE) ROOMS.

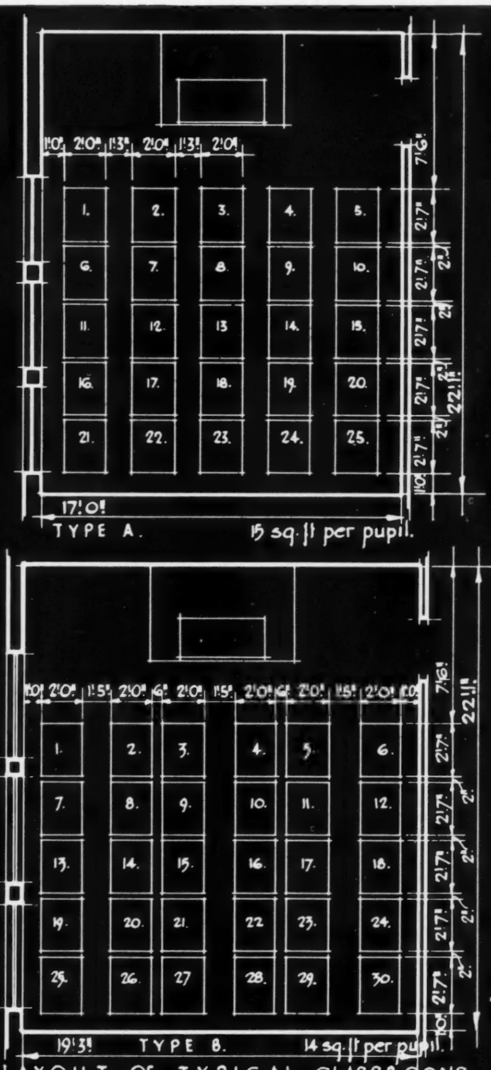
Sound proof rooms . . . . 8'0" × 6'6".

DINING ROOMS.

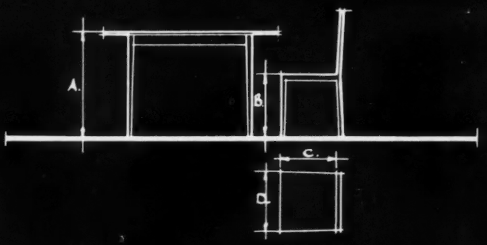
Area per pupil . . . . 8–10 sq. ft.
Length of table per pupil . . . . 1'9"–2'0".

DAY ROOMS.

Area per boarder. . . . . 20'0" sq. ft.


1'0" 2'0" 1'3" 2'0" 1'3" 2'0"
7'6"
2'7"
2'7"
2'7"
2'7"
2'7"
1'0"
2"
22'1"
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
17'0"
TYPE A.
15 sq. ft per pupil.
1'0" 2'0" 1'5" 2'0" 6" 2'0" 1'5" 2'0" 6" 2'0" 1'5" 2'0" 1'0"
7'6"
22'1"
2'7"
2'7"
2'7"
2'7"
2'7"
1'0"
2"
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
19'3"
TYPE B.
14 sq. ft per pupil.

LAYOUT OF TYPICAL CLASSROOMS.



DIMENSIONS OF CHAIRS AND TABLES FOR SCHOOLS.

		A.	B.	C.	D.
children	4–6 years	20"	10"	10"	12"
	6–8	22"	12"	10"	12"
	8–14	24"	14"	13"	14"
	14–18	27"	16"	16"	17"
adults		30"	18"	16"	17"

INFORMATION SHEET : SEATING, AREAS, ETC FOR SCHOOLS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS • 3 • SEATING FOR SCHOOLS

INFORMATION SHEETS

• 3 •

SEATING FOR SCHOOLS

•

LAST week's Information Sheet dealt with the seating in restaurants. This week's is a companion, giving similar data in respect of schools.

The story of how these drawings—in themselves exemplars of the draughtsman's art—came into existence in the office of Sir John Burnet, Tait and Lorne, and of how, far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, has already been told.

The very fact that these Information Sheets, of a type in common use in America and Germany, are new to us here points the need for architects in this country to rationalize the activities in their own offices.

No one can avoid being impressed by the vital character of the information conveyed by these graphic and tabular means in the minimum of space with the maximum of clarity ; they give, at a glance, just those very details which, though known to have been received some time or other, will usually take hours of search to unearth. Needless to say, their value depends on their being up-to-date.

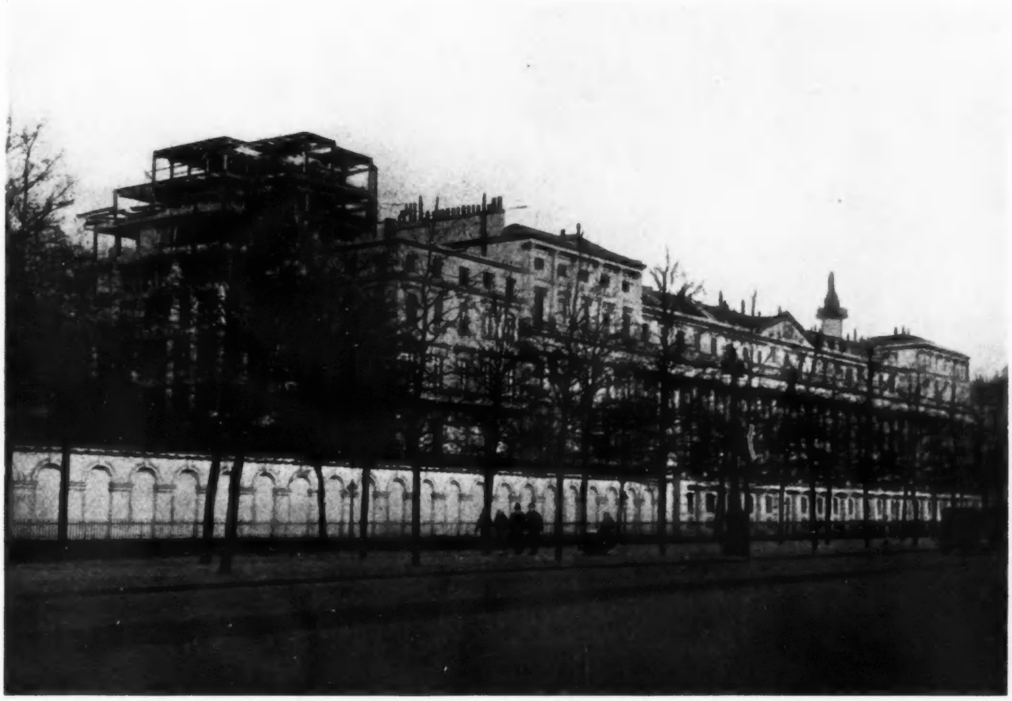
It is arguable that one reason why, in the past, it has not been easy to collate such statistics, has been the reluctance of manufacturers in this country to perceive the advantages to them of standardizing the size and style of their catalogues and lists of goods, and the loose sheets by which, from time to time, they are revised, so as to reduce the architect's problems in compiling a reference library. Standardization in this respect has long been adopted in other countries.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

THE SKELETON ON THE SKY-LINE

CARLTON HOUSE TERRACE OVERTOPPED

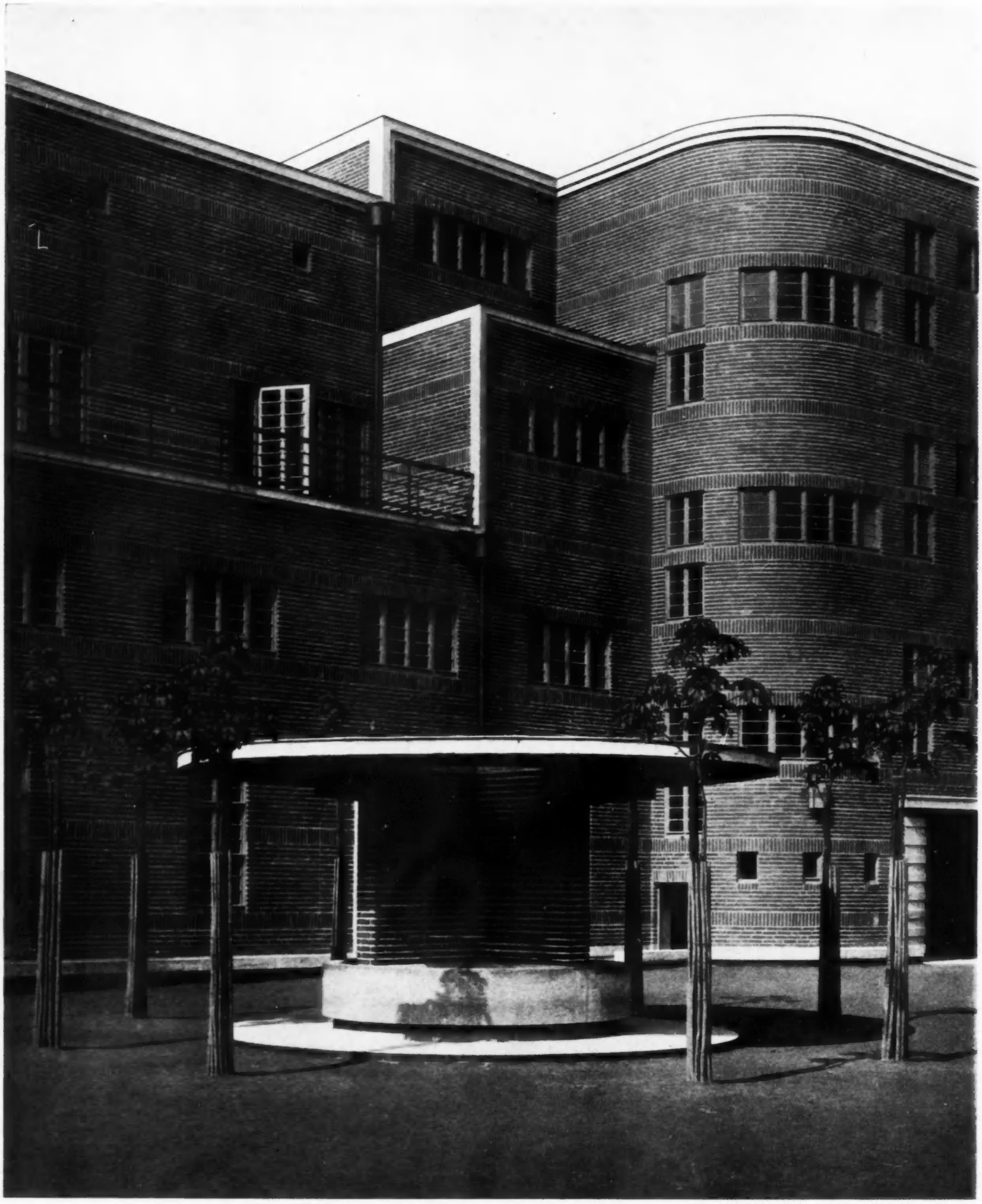


THIS photograph, taken from the Mall last week, shows the steel frame of the new block of offices, designed by Sir Reginald Blomfield for Messrs. Pinchin, Johnson, to occupy the site of No. 4 Carlton Gardens. It disposes, once for all, of the claim that the project entered into with such ill-consideration on the part of the Commissioners of Crown Lands, would not destroy the character of Carlton House Terrace, or be conspicuous from the Mall. It is conspicuous from the Mall, and it will not be the less so when clothed in Portland stone.

It is the immediate object of the Carlton House Terrace Defence Committee, who met, several hundred strong, last week, to secure at least the abandonment of the two uppermost stories and the preservation of the Terrace in its entirety. But the ultimate object of their activities is much wider—to form a permanent body charged with the task of preserving the amenities that remain, and to create fresh ones, in the architectural anatomy of London.

On the question of preserving the Terrace, Viscount Castlerosse, who edits "The Londoner's Log" in "The Sunday Express," allowed him his say, this week, in the words: "No wonder many men wish to preserve Carlton House Terrace. And, believe me, I am not sneering at these excellent folks; there is surely a good deal to be said in their favour. If Carlton House Terrace is preserved it will be a lesson to future architects what to avoid."

This is a pronouncement that can be read in two ways. It should be framed and hung in the office of one London architect.



ASYMMETRICAL FENESTRATION IN A SCHOOL AT FRANKFURT

DESIGNED BY MARTIN ELSAESSER

It is the unexpected placing of the window-voids, accepted without question by the eye, yet giving them almost the semblance of random building blocks, that gives the elevations their individual attraction. The fountain in this forecourt of the school shows the same direct simplicity of line characteristic of the main structure, of which further photographs appear on pages 198-202 of this issue. The classrooms have an outlook over the surrounding landscape; and terraces afford facilities for open-air classes.

THUNDER IN THE AIR

PARLIAMENT has been in recess. Out of the question, then, as anyone can see, to withstand officialdom, to save unblemished the Carlton House Terrace prospect of the Mall. But natural enough that the contractors should have been put to work overtime, in the interim, on the offending block of offices. On the site of No. 4 Carlton Gardens, already the stonework is going up; as for the steel frame-work, that has been erected to its full height, hunching its gaunt and ghastly shoulders to frown down upon London's fairest processional way. Our photograph on the first page shows the position clearly enough.

So much for Sir Reginald Blomfield's assertions that the proposed building would not overlook the Mall. There it stands, thrusting itself upon the wondering gaze of all who, walking in St. James's Park, chance to turn their eyes northwards. Citizens of London—more sharply, citizens from other civilized countries—may rub their eyes in astonishment that such "flagrant and insensate vandalism" can be committed with impunity by any in the world's centre of taste and culture, let alone by the very folk who should set an example as model landlords. But let them reflect. Parliament has been in recess; so nothing *could* be done.

It went into recess shortly after the storm broke. It was early in December that Sir Reginald, in his letter to the *Times*, told an astonished world that the Commissioners of Crown Lands had decided that the Terrace was to be rebuilt at an early date (though how he or they could expect it, with long-term leases of many of the houses still to run, is a mystery); for which reason he would have us not judge his new offices for Messrs. Pinchin, Johnson as a single unit, but as part of a comprehensive scheme—a scheme for which he had been good enough to draw the plans and elevations. Almost immediately he was given the lie, in Parliament, by the statement that there was "no project in being" for rebuilding the Terrace. And there, for the time being, Parliament left it.

Did our legislators fondly hope that, while Members were taking their vacation, the process of building would be automatically stayed, like the process of legislature; or did they, more fondly, imagine that the storm might blow over? Who knows? To seek to analyse the workings of the political mind would be sheer waste of time. Neither event has happened. And for very good reasons.

As to staying the process of building, Major Elliot did nothing to impede it when, in his formal statement on the subject, he announced that "the Government have had the matter very fully under review . . . and feel bound to state that . . . they consider no useful purpose would be served by any further intervention by the Government in the matter of Messrs. Pinchin, Johnson's lease of No. 4 Carlton Gardens." The "further intervention" is good. Evidence is to seek that the Government ever intervened at all. Far from it. They forbade intervention. Sir Arthur Steel-Maitland, M.P. (now chairman of the Carlton House Terrace Defence Committee) sought authority to approach Messrs. Pinchin, Johnson, while there was yet time, with a view to negotiating a settlement; and his offer was refused. Small wonder that he has since given it as his opinion that the Government had not done everything they might to compound for a lease that ought never to have been granted. Small wonder that the process of building the eyesore has been accelerated.

And as to the storm blowing over, it is, in truth, only now blowing up. On January 31 the Minister of Agriculture (*ex officio*, First Commissioner of Crown Lands) issued a statement in which he said: "the Commissioners do not propose to take any further action in regard to the development of Carlton House Terrace until public opinion has had time and opportunity to express itself, and these opinions have been fully considered."

There is no need to give public opinion time and opportunity to express itself. Public opinion has already made both. Its gathering thunder pealed very freely and forcibly at the first meeting, last week, of the Carlton House Terrace Defence Committee, which has now grown to a membership of over four hundred. The Committee means business. It proceeded to elect an Executive of seven Members of the House of Lords, nine Members of the House of Commons and seven non-Parliamentary members, drawn from many walks of life. If that is not an unmistakable expression of public opinion, what is it? No mere passing squall, at all events.

But Parliament is no longer in recess. The deep depression hitherto centred on No. 4 Carlton Gardens bids fair to rage about the Metropolis, provoking such a landslide as will sweep the Crown Commissioners clean off their feet. It is as certain as things can be that the days of their maladministration are numbered.

For, whatever eventually happens along the Mall, what is in view is a permanent Vigilance Committee, designed to keep a wary eye on cracksmen of Carlton Terrace, assassins of the Adelphi, wreckers of Waterloo Bridge, and all such fry as have no soul for the amenities.

Speakers at the first meeting of the Carlton House Terrace Defence Committee : Sir Arthur Steel-Maitland, M.P. (Chairman) ; Mr. J. C. Squire (Vice-chairman) ; Lady Oxford and Asquith (who held up an illustration of the Terrace from "The Architectural Review," displaying which she said, "How dare they try to pull that down!") ; and the Bishop of Southwark.

● NOTES & TOPICS ●

THE MUSTER FOR ACTION

A PACKED hall—a packed gallery—rows of figures standing, hat in hand, uncomfortable yet eager, round the walls—this was the scene at 5.30 on Thursday night, when Sir Arthur Steel-Maitland rose to open the first meeting of the first members of the first committee for the Defence of Carlton House Terrace.

*

As Mr. Squire said later, it was difficult to realize that this was a committee meeting. If the committee at its present size fills the Caxton Hall, it will fill the Albert Hall next time.

*

What does this mean? It means that public opinion is roused. What *Country Life* calls "our unguarded city" is to be left unguarded no longer. A really impressive phalanx of people, drawn from all interests, has formed up, not in order to utter a "strong protest" but to say "*we will not let this sort of thing go on.* We will take action." And action—unfortunately for Mr. A. S. Gaye, the Permanent Commissioner of Crown Lands—there is going to be.

*

Not that the decapitation of Number Four Carlton Gardens, nor even the cold storage of Carlton House Terrace, is the only objective. I suppose even Mr. A. H. Dungay, my coldest reader, will have realized by now that there is more in this disturbance than meets the eye. As Mr. Frank Pick said, "the smallest matter we are invited to consider here is the fate of Number Four Carlton Gardens." About the ultimate objective of this committee I believe something is said elsewhere in this issue.

*

The "platform" itself provided an interesting study in contrasts. Sir Arthur Steel-Maitland, a finely-chiselled patrician; Mr. Squire, a rubicund Mephistopheles; the sharp wiry silhouette of Lady Oxford—all the sharper and wirier against the glorious substantiality of Sir William Davison and Mr. Frank Pick; Lord Esher, dark and *disturbing*; Sir Leslie Scott, legal and dapper. And somewhere out in the Great Beyond, the dim, nearly indistinguishable figure of the Editor of THE ARCHITECTS' JOURNAL.

*

The greatest clap of the afternoon was given when Lady Oxford held up a vast illustration of Carlton House Terrace from *The Architectural Review* and cried: "How dare they try to pull that down!"

The Carlton House affair is a melancholy business, but it has already served one purpose—a noble purpose: it has introduced brightness and amusement into Beachcomber's drab life. And his comments in last Wednesday's *Daily Express* have, in their turn, entertained me, as, indeed, his column seldom fails to do.

*

After all, perhaps what Beachcomber suggests is right. What is all "the Carlton House Terrace fuss" about? Why *not* pull it down? Where is its half-timbering, that it should be reckoned as architecture, or beauty either? Tush!

*

> There is a persistent rumour (he writes) that the first to complain of the new tall building was a gentleman who did a roaring trade in skyscrapers in New York. It was only recently that the architects who had lost the contract began to cry . . . What hurts me is that the whole thing is commercial. Fancy thinking of money!

*

Actually, of course, the "rumour" referred to is incorrect—the agitation started in this JOURNAL, and many minds trained in architectural (not antiquarian) appreciation took up the cause; although men (American as well as British) who have built skyscrapers in New York are as satisfied about the unsuitability of high buildings to London as they are about the beauty of Nash's terrace. What does surprise me is to hear Beachcomber (who usually champions sensibility against commercial encroachment) allow that finance should have any consideration at all—however faulty. His journalism is better than his architecture; he is a better columnist than logician; a finer comic than critic.

*

THE BUILDING INDUSTRIES COUNCIL IN BEING

Tomorrow (Thursday), as some of my readers are aware, the Building Industries National Council comes into being as a constitutional body, and the first step in the mobilization of the Industry, due to the initiative of Sir Raymond Unwin in calling the representative conference of last August, is accomplished.

*

"The costly experience of what was thought to be 'economy,'" says Mr. H. B. Bryant, the secretary, in the course of an interview for the general press, "and the play of sheer expediency with the vital interests of the Building and ancillary Industries, will not again be perpetrated on an unsuspecting industry and public."

Meanwhile, Mr. Bryant, who is also secretary of the Council's Public Relations Committee, tells me that the publicity recently accorded to the movement is showing a healthy influence. The borough surveyors, who have been canvassed by the Committee as to work suspended, are waking up, and their returns are not only coming in by the hundred, ranging over jobs from £250,000 down to £3,000, but are much more detailed.

*

The newspaper cuttings in last week's JOURNAL about "the Building Drive" all over the country were a cheerful sign of the times.

*

The scheme of the building societies for financing repairs and additions for house-owners is another straw which shows clearly enough which way the wind is blowing; and the Prime Minister has bestowed his official blessing on it. This is, I believe, the first occasion on which financial interests have recognized the possibilities of organizing finance for the Building Industry.

*

From this it is not such a very big step to the establishment of close and definite relations between finance and housing.

*

THE HOUSING CONFERENCE

The R.I.B.A. Conference last week provided a variety of interesting speakers, whose utterances were marked by sincerity and purpose.

*

Sir Austen Chamberlain, has, of course, a family tradition of housing work behind him, and spoke feelingly of the human element of this work of reconstruction. So, too, did the Marquess of Salisbury, laying great stress upon the value of reconditioning—the cheaper way of bringing health and happiness into the slums. Owner of vast areas of workmen's dwellings in Liverpool, which he is gradually rehabilitating, he is better fitted than anyone else to press for the less spectacular way of tackling the slums.

*

Lord Balfour of Burleigh supported with an eloquent speech, and others that followed served to show that the resolutions passed had the backing of a keenly interested conference.

*

It was left to Mr. J. M. Keynes to surprise us with a show of figures that made Sir Raymond Unwin's calculations as to the effects of not spending appear modest and diffident. Which was a pity; unless Mr. Keynes is going on to develop his case, and produce very telling evidence in its support.

*

WATERLOO BRIDGE SAVED

The L.C.C. Improvements Committee have at last agreed to the Government solution of the Waterloo Bridge problem; but with bad grace, and reservation.

*

It would look less like sulking on their part if they had been able at any time to produce good town planning reasons to show why six lines of traffic should be brought at great additional expense to debauch into the bottleneck of the Strand.

*

It is some small comfort to Mr. William Muirhead that the sane evidence he gave to Lord Lee's Royal Commission has withstood the opposition of several stormy years.

THE ARCHITECTS' DIARY

Wednesday, February 8

R.I.B.A., 9 *Conduit Street, W.*1. Exhibition of photographs of monuments of Islamic architecture in Persia. Until February 25.

*ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.*1. Winter Exhibition, 1933. 10 a.m. to 6 p.m. Until March 11. 10 *a.m.*

*L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.*1. "Roman Architecture—IV." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

*ILLUMINATING ENGINEERING SOCIETY. At the Polytechnic, Regent Street, W.*1. "Light in the Service of Mankind." By C. C. Paterson. 6 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. At the College of Technology, Manchester. "The Greatest Spans Attainable by Reinforced Concrete Bridges." By T. J. Gueritte. 7 *p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Hotel Russell, W.C. "Warming and the Ventilation of the Masonic Peace Memorial Building, W.C." By Edgar Herring. 2.30 *p.m.*

*INSTITUTE OF FUEL. At Burlington House, Piccadilly, W.*1. "Practice of Heat Insulation." By L. Forster. 6 *p.m.*

*INSTITUTION OF CIVIL ENGINEERS, Great George Street, Westminster, S.W.*1. "Design and Construction of a Covered Concrete Service Reservoir at Plumstead, for the Metropolitan Water Board." By J. H. Tweedie. 6 *p.m.*

*ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.*2. "Design and Form as Applied to the Manufacture of Glassware." By James H. Hogan. 8 *p.m.*

Thursday, February 9

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.*1. "The Creep of Concrete Under Load." By W. H. Glanville and F. G. Thomas. 6.30 *p.m.*

Friday, February 10

*TOWN PLANNING INSTITUTE. At Caxton Hall, Caxton Street, S.W.*1. "The Town and Country Planning Act and the Countryside." By Professor Patrick Abercrombie, F.R.I.B.A. 6 *p.m.*

FACULTY OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. Visit to the Building Centre, 158 New Bond Street, W.1. 6.15 *p.m.*

*L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.*1. "Manor Houses." By R. Minton Taylor, F.R.I.B.A. 6 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce Building, 95 *New Street, Birmingham.* Discussion on "The Nature of Stress in Concrete." To be opened by A. Ashworth, B.SC. 7 *p.m.*

Saturday, February 11

Sunrise 7·23 a.m. Sunset 5·7 p.m.

Tuesday, February 14

ROYAL SANITARY INSTITUTE, 90 *Buckingham Palace Road, S.W.*1. Discussion on "Ventilation and the Need for Standards." To be opened by J. S. Owens, A.M.INST.C.E. 5.30 *p.m*

HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION. At Southampton. Annual Dinner and Dance.

*INSTITUTE OF LANDSCAPE ARCHITECTS. At the Royal Horticultural Hall, S.W.*1. "A Layman's View of Landscape Architecture." By C. E. Hughes. 3.30 *p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. Manchester and District Branch. At the Engineer's Club, Albert Square, Manchester. "Snags in Heating and Hot Water Supply Installations." By A. Hindley. 7 *p.m.*

LONDON SOCIETY. Visit to the Jewish Museum and Central Library, Woburn House, Upper Woburn Place, W.C.1. 3 *p.m.*

—AND NOW RICHMOND BRIDGE

Richmond Bridge is endangered by the washing away of its foundations, and another opportunity for preservation and widening presents itself.

*

In neither case is affection misplaced, for both appear to me to be masterpieces, the loss of which we cannot afford. There is no question of demolition in Richmond or Twickenham, I understand, for both appear to realize the high monetary value of a fine work of art in the forefront of their picture. ASTRAGAL

NEWS

●

POINTS FROM THIS ISSUE

The chief object of making a plan is to avoid waste expenditure of effort and capital *203*
We have reached the point when cheap houses and slum clearance have got to be tackled in real earnest, and as one problem *210*
£30,000,000 spent on housing would probably increase the national income by £60,000,000 in one way and another *211*
So-called functionalism must acquire more psychology and human feeling *213*
The professional builder who organizes a job should be paid . . . like the architect a definite percentage *217*
7 sq. ft. per person is the approximate seating allowance for a theatre .... *Supplement*

●

REFRESHER COURSES

The first of two refresher courses for architects was commenced at the Building Research Station, Watford, on Monday last, and will be concluded on Saturday, February 18. The second will be held from Monday, February 20, to Saturday, March 4.

Broad questions relating to the economics of the building industry, to architectural acoustics, to moisture movement, fire resistance, and to sources of technical information, are to be dealt with by Mr. Zaiman and Mr. Barnett.

Mixed with lectures will be laboratory work. The architects attending the refresher course in building science will have the opportunity to do practical work on concrete, bricks, stones and slates, lime and plaster, bitumens, waterproofers, cast stone, illumination, stone preservers and strength testing. One whole day is to be given to the study of steel-framed buildings.

ARCHITECTS AND ENGINEERS

Mr. J. Hubert Worthington, F.R.I.B.A., speaking at the annual dinner of the Manchester Branch of the Institution of Structural Engineers, held on Wednesday last, emphasized that one of the really significant things of the present time was that engineers and architects were getting closer together rather than farther apart. The rising generation of architects loathed columns hung on buildings, and ornamentation (described by Mr. Worthington as "kippers and onions"). The young architect was absolutely absorbed with functionalism, and thought in terms of engineering. What was wanted was for architecture to have the best of engineering, and engineering to have the best of architecture.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Friday last, February 3, amounted to £1,880 2s. od.
Subscriptions should be addressed to the Honorary Treasurer, Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

THE ARCHITECTURE CLUB

The next supper-discussion of the Architecture Club will be held at the Architectural Association, 34 Bedford Square, W.C., on February 17 at 7.30 p.m. "Architecture and Modern Production" is the subject for discussion, which will be opened by Mr. R. A. Duncan, A.R.I.B.A.

HOUSING CONFERENCE

The following resolutions were passed at the Housing Conference held at the R.I.B.A. last week and attended by a large gathering widely representative of all those interested in various branches of housing :

RESOLUTION NO. 1

Proposed by Sir Raymond Unwin, President R.I.B.A. Seconded by Sir John Mann, K.B.E.

That this Conference, having heard the statements made relative to the changes in the conditions governing the supply of dwellings for the lower paid workers, considers that the proposal to set up a National Public Utility Housing Board should be fully explored, in conjunction with the authorities and interests concerned, and that the assistance of the Minister of Health should be invited.

RESOLUTION NO. 2

Proposed by The Rt. Hon. Lord Balfour of Burleigh. Seconded by Sir Edgar Bonham-Carter, K.C.M.G.

The Conference urges His Majesty's Government to take what steps they can to maintain an adequate provision of dwellings for the lower paid workers by encouraging local authorities in appropriate cases to carry on with the building of dwellings without subsidy, and, where the circumstances require, by developing improvement areas under the 1930 Housing Act on a large scale and dealing rapidly with the overcrowded families in those areas.

A vote of thanks to the Chairman was proposed by Mr. J. Maynard Keynes, C.B., and carried unanimously.

A special article on the Conference is printed on page 208.

WEST YORKSHIRE ARCHITECTS' DINNER

The biennial dinner of the above Society was held at Leeds, on February 2, under the presidency of Mr. B. R. Gribbon.

The Earl of Harewood, in giving the toast of the R.I.B.A., said an important part of the duty of many architects was the designing of small houses which would be within the means of the poorer classes of the community. The amount of land to be allotted to each house was a controversial question. For his part he considered that even an increase of a fifth of an acre per house would tend to throw any scheme over a much larger area, and further from the centre of employment and so create a transport problem, and that was one of the most difficult questions they had to face at the present. With regard to unemployment, a subject on which he felt very deeply, he thought that many builders must have a number of unskilled jobs which they might be able to fill with sturdy youths who would be willing to do a hard day's work for little more than the minimum wage, and he hoped they might use their influence in this direction.

During the proceedings, the R.I.B.A. architecture medal for West Yorkshire, 1931, was presented by Major Barnes to Mr. G. H. Foggitt, of the firm of Chorley, Gribbon, and Foggitt, for the Yorkshire Penny Bank branch building in Headingley, Leeds.

NEWS REEL THEATRE

Mr. Alister G. MacDonald has submitted plans to the Westminster City Council, for a news reel theatre which it is proposed to erect in the Southern Railway Co.'s Victoria Station, adjoining Buckingham Palace Road. The plans have been approved by the Duke of Westminster and the London County Council.

FRENCH REIGNS EXHIBITION

The Three French Reigns Loan Exhibition (Louis XIV, XV and XVI), organized by Sir Philip Sassoon, will be held at 25, Park Lane, W. from, February 21 to April 5 inclusive (11 a.m. to 7 p.m., Sundays included).

We regret that the name of Mr. E. Stone Collins's partner in the work of completing London County Hall was misquoted in last week's issue. It should have appeared as Brian S. Roberts.

R.I.B.A.

PERSIAN ARCHITECTURE

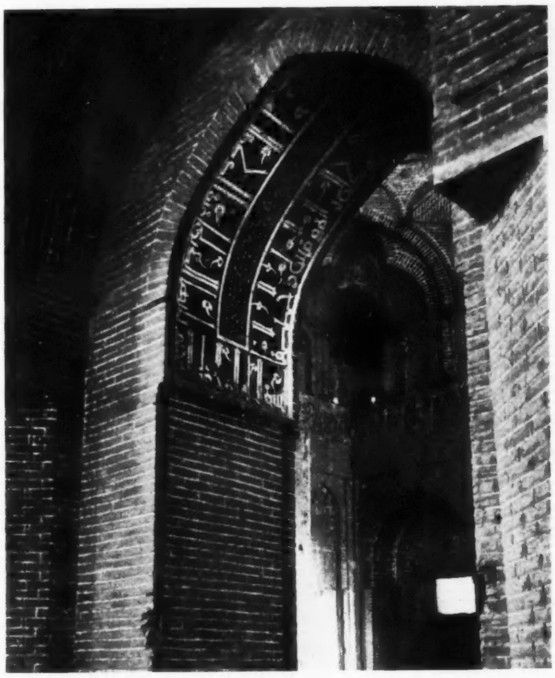
An exhibition of enlarged photographs of monuments of Islamic architecture in Persia, made by Arthur Upham Pope, Director of the American Institute for Persian Art and Archæology, was formally opened at the Institute on Monday afternoon by the American Ambassador.

The material constitutes a systematic survey of some of the earliest and most important monuments of the Islamic period left standing on Persian soil, and represents the first inclusive group of photographs of these monuments to be shown.

It has long been recognized that the architecture of Persia of this period was especially important, not only for its own beauty and for the magnificent solution of difficult structural problems which it exemplifies, but also as a link in the history of European architecture. But it has been impossible to get adequate knowledge of the most important monuments, owing to the fact that all of the greatest buildings are mosques in active use, and it was forbidden on pain of death for a non-believer even to enter these. Occasionally a European has been able to go in for a few moments in disguise, but really careful observation was rendered impossible by the danger of the situation, and photographing, save for a few rare and quite inadequate snapshots, was quite out of the question. Four years ago, however, the Shah permitted Mr. Pope to enter the mosques, providing a Government guard, for the purpose of making a photographic record for scientific study.

The photographs are on an especially large scale, which gives the full effect both of the monumentality of the structures and of the exquisite and infinitely varied detail of the ornamentation.

The exhibition will remain open until Saturday, February 25, between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.).



Ardistan: Masjid-i-Jurneh (Cathedral Mosque) 1135. Looking into the domed sanctuary from the east. From the exhibition of photographs of Persian Architecture, opened by the American Ambassador at the R.I.B.A. on Monday last.

MEMBERSHIP

The 1933 edition of the R.I.B.A. Pamphlet, *Membership of the R.I.B.A.*, has now been published. Copies may be obtained from the Secretary, R.I.B.A., price 1s. each, exclusive of postage.

The pamphlet, in addition to containink information regarding the examinations and membership of the R.I.B.A., contains full particulars with regard to architectural training, scholarships available at the Schools of Architecture recognised for exemption from the R.I.B.A. examinations, a selected list of books on architectural subjects, etc. Maps showing the local distribution of facilities available for architectural education in the British Empire are an important feature of the pamphlet. These maps are accompanied by lists of Schools throughout the countries and by a schedule showing the local distribution of facilities. This schedule gives the R.I.B.A. allied societies and their provinces and states the educational facilities available in the area of each allied society.

COMPETITION NEWS

CEMENT HOUSES

The assessors' award in the Cement Marketing Co., Ltd.'s., competition for four types of houses promoting the artistic uses of cement was first published in a supplement with last week's JOURNAL, issued the day after the award was publicly announced. Extracts from the assessors' comments on some of the premiated designs, reproduced elsewhere in this number, are given below.

TYPE A: A TERRACE THREE-BEDROOM HOUSE COSTING £500 TO BUILD (SUITABLE FOR A SCHEME OF 48 HOUSES IN TERRACES OF 6). First Prize—Thirty guineas: C. A. Charlewood Turner, A.R.I.B.A., of Wrotham, Kent. (See supplement). The living room, open to the hall, permits the use of a screen, curtain, or doors, yet provides a sense of ease and space. The kitchen is well arranged and the bedroom planning excellent. Access to the back door is faulty owing to the necessity of passing the dining recess window, nor would the garden be attractive and private. Access from house to garden is through the kitchen, which is not ideal. No provision for tank storage space or access thereto is shown.

The external walls are specified to be of precast pumice concrete blocks, rendered externally with coloured cements and finished internally with Hydralime plaster. The hood to the front door is to be of reinforced concrete. The kitchen floor is to be surfaced with Cullamix, coarse grading.

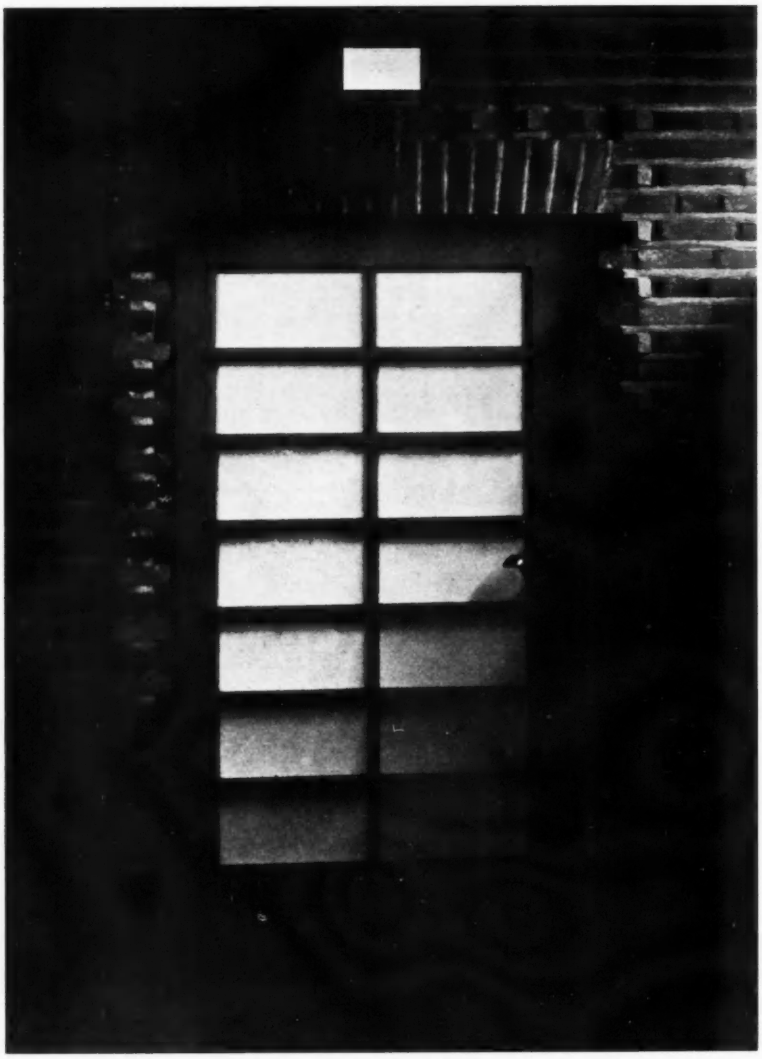
TYPE A: SPECIAL PRIZE—FIFTEEN GUINEAS. By E. Wamsley Lewis, A.R.I.B.A., of Weymouth. (See page 213.) The front service yard is a very commendable feature, ensuring privacy to the back gardens; as is also the sun porch. There is only one W.C. downstairs, but there is room for a fitting in the bathroom with rearrangement.

This scheme is one of the few submitted in which, with a single large living room, the kitchen is treated as combined cooking and dining space. The bedrooms are very well planned from the standpoint of furniture and fitting.

The walls are of 4 in. reinforced concrete but the system of construction does not appear practicable. The specification offers grounds for criticism on the score of insufficient information. Coloured cement is specified for the outside walls and Hydralime plaster for the inner walls. The construction would not provide for concealment of services, etc., and no provision is shown for storage tank.

The figure of 9d. per cu. ft. is optimistic.

TYPE A: SECOND PRIZE—FIFTEEN GUINEAS. By C. P. Greenwood and Ivan Williams, of Wolverhampton. (See supplement.) The kitchen might be better arranged as regards its fittings to permit of its occasional use as a dining room. The corner window in the living room would give an unfortunate view of any hedge or fence separating the back gardens; the view down the length of the garden is the



The Konrad Haenisch School, Frankfurt-on-Maine • By Martin Elsaesser. Craftsmanship in a brick doorway in the building illustrated on the following pages.

one usually desired. The support of the main wall over the single-story flat on the rear elevation is not fully explained. The passages through the building giving access to back doors, which face each other, are too narrow. This might have been avoided by planning the doors differently in each house.

The houses are specified of brick construction with 9 in. external walls, rendered with cream Cullamix, fine grading, the slightly projecting plinth and architrave around the external walls being of dark grey Cullamix. The parapet coping is of precast stone, projecting 9 in. and sprayed with Tintocrete of dark grey colour. All floors on the ground floor, other than that in the living room, to be finished with red Cullamix, coarse grading. Hydralime is specified for internal plastering.

TYPE B: SEMI-DETACHED THREE-BEDROOM HOUSE COSTING £600 TO BUILD. First Prize—Thirty guineas. William A. Funnell, of Purley. (See supplement.) A very pleasant plan, but with its main room only 10 ft. 6 in. wide and a dining room in which the door is awkwardly placed. The dining and living rooms might have been reversed in position, placing the former next to the kitchen. The hall, on the other hand, is very ample.

The walls, which are of 9 in. brickwork, are rendered on a water-repellent cement mortar with Snowcrete, the entrance door and hood being in concrete sprayed with Tintocrete. Cullamix coarse grading is specified for finishing the concrete floors of entrance hall and kitchen. Hydralime is to be used for internal plastering.

TYPE D: DETACHED FOUR-BEDROOM HOUSE WITH GARAGE INCORPORATED OR DETACHED, COSTING £1,000 TO BUILD. First prize—Thirty guineas. By J. W. Davidson, of Sheffield. All dining and bedrooms have south aspect, and furniture is well provided for, though the bedrooms would bear further study. The kitchen, with its maid's recess, is both workable and pleasant, and all other items of service are well considered. The large first floor landing would be useful, as it is large enough to be furnished, but the arrangement of bedroom and cupboard doors giving on to it might be bettered.

The cost of 1s. is a fairly reasonable assumption. A good point of this scheme is that the garage could be omitted for later addition if required. The walls are specified to be of 9 in. concrete blocks, treated externally with water-repellent cement and rendered with Cullamix, fine grading (yellow stone colour), and finished with a wood float. All parapets to have 2 in. green concrete tiles set in cement.

The hall, staircase and first floor landing are to be treated with Tintocrete to approved colours. Cullamix, coarse grading, is to be used in the form of pre-cast tiles for the hall, and to be laid *in situ* as a finish to the floors of kitchen and bathroom.

Hydralime is to be used for rendering internal walls and ceilings.

TYPE D: SECOND PRIZE, EX AEQUO—FIFTEEN GUINEAS. By E. Maxwell Fry, B.Arch., A.R.I.B.A. (Adams Thompson & Fry), of London. Unfortunately the house is a little expensive for the sum allowed. The living rooms face south as well as the bedrooms; the detail planning of the latter is the best submitted. The fenestration of the main living room requires consideration in conjunction with the furnishing. The "L" of this room would appear more suitable as a study or sitting recess, with perhaps a fireplace, while the piano might be placed in the larger "reception" area. The door to the garden seems at present crowded between window and suggested location for piano, and would interfere with sitting arrangements, which might focus around the former. The kitchen is small, table space is lacking, and the service lobby is unworkable. The omission of fireplaces is a reasonable conception but there is little doubt that in the living room a fireplace is generally welcome.

The outer walls are of cavity blocks, lined on the inner face with insulating boards; externally they are to be treated by rendering with Cullamix, fine grading, in shades of yellow and brown, whilst Snowcrete is also to be introduced, as well as a mixture of black Portland cement and black basalt.

Concrete tiles 2 ft. square, finished with Cullamix, coarse grading, are to be used for the floors to hall and kitchen, whilst the stairs and landing, which are in reinforced concrete, are to be finished in Cullamix and bedded into and on to the walls.

HENRY SAXON SNELL PRIZE

The Henry Saxon Snell Prize was founded to encourage improvements in the construction or adaptation of sanitary appliances, and is to be awarded by the Council of the Royal Sanitary Institute at intervals of three years, the funds being provided by the legacy left by the late Henry Saxon Snell.

The Prize for 1933 will consist of fifty guineas and a medal of the Institute, and is offered for an essay, 5,000 words in length, on "Suggestions for Improvements in Apparatus and Appliances for dealing with House Refuse."

Essays must be delivered on or before September 30, 1933, addressed to the Secretary of the Royal Sanitary Institute, 90 Buckingham Palace Road, London, S.W.1, from whom full particulars of the competition are obtainable.

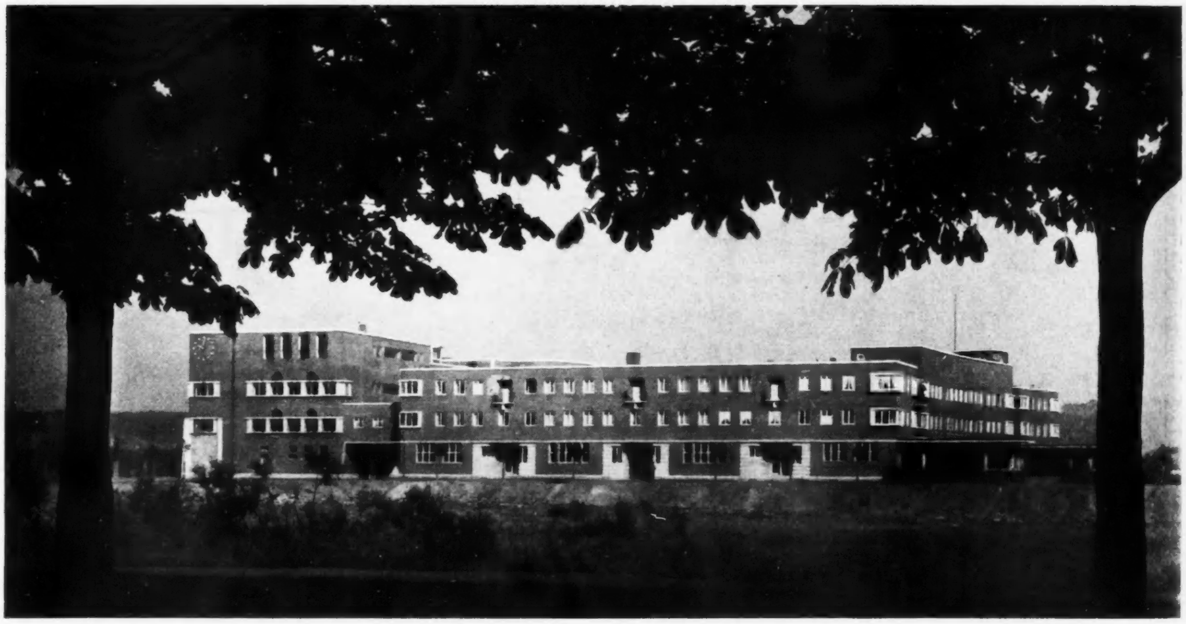
Competitions Open

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First prize, £50.

May 31.—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

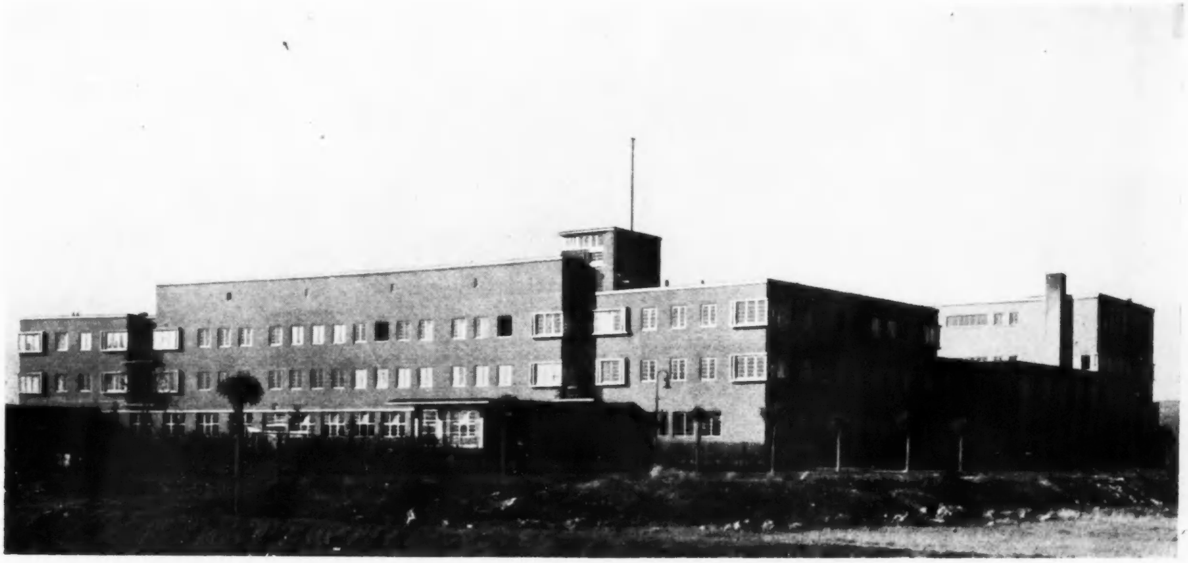
Full Particulars of the above competitions were published in our issue for February 1 last, and December 7, 1932, respectively.

SCHOOL AT FRANKFURT : BY MARTIN ELSAESSER

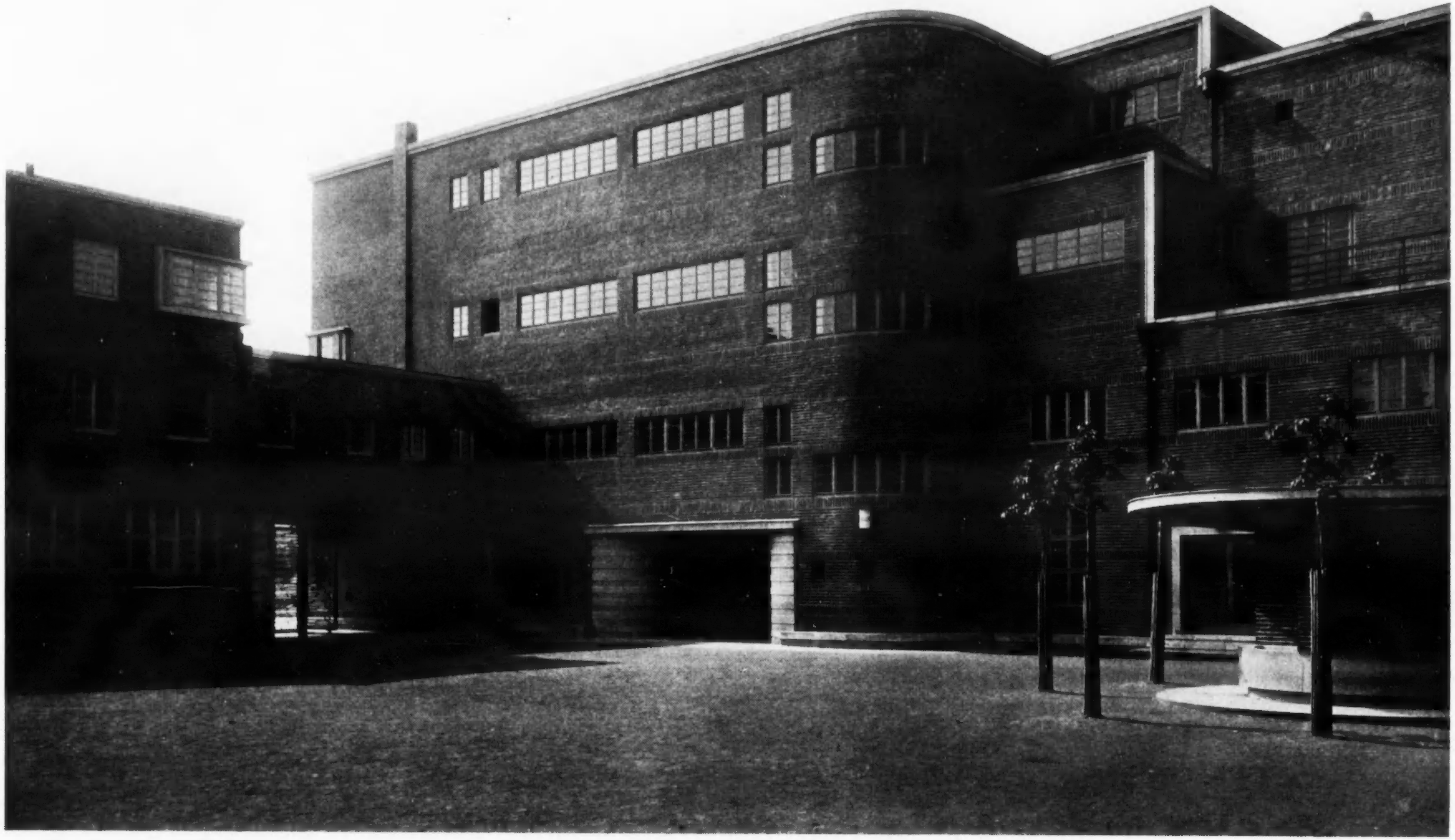


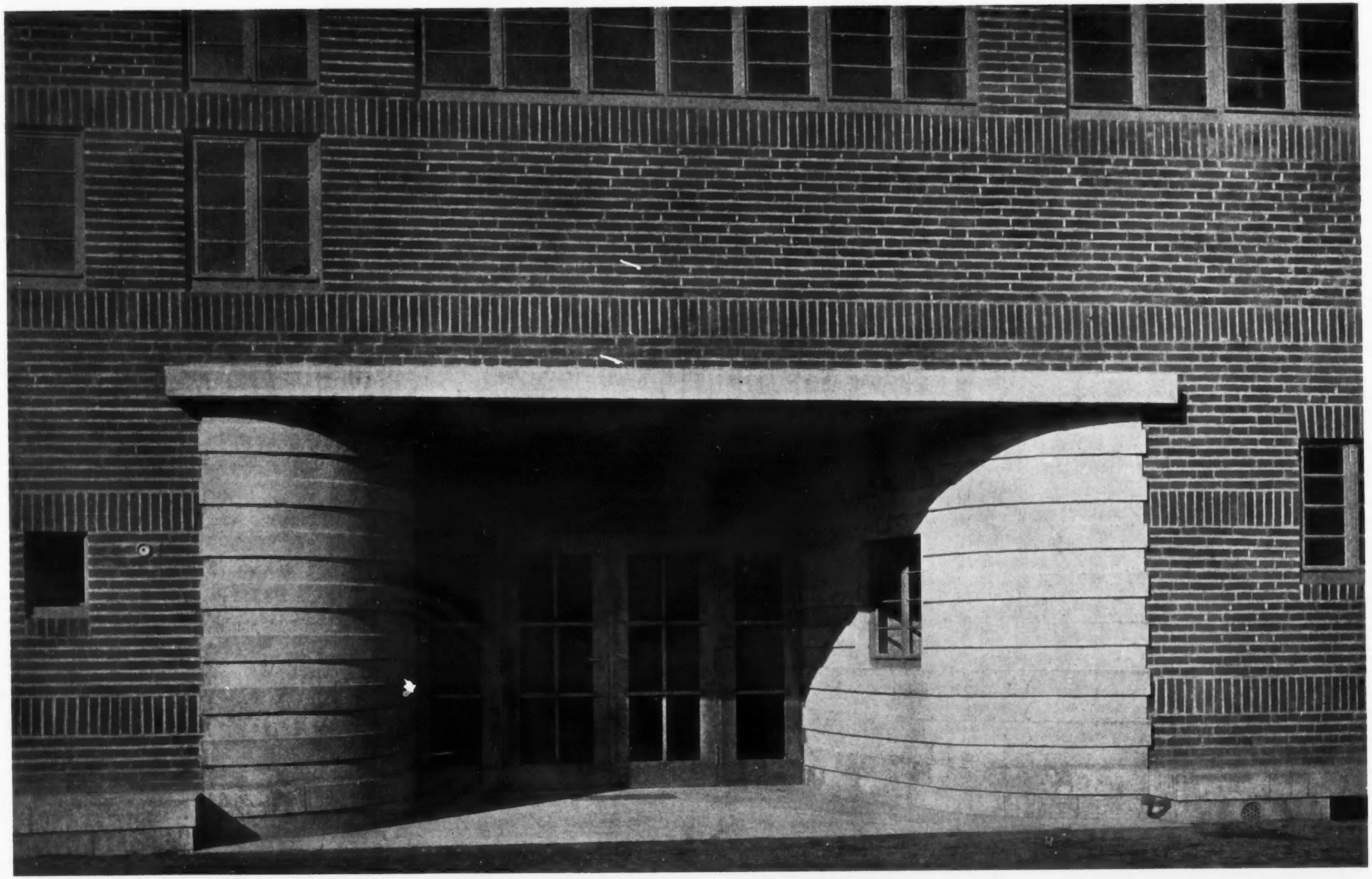
In designing the exterior of the Konrad Haenisch School at Frankfurt-on-Maine, of which the south and east fronts are illustrated on this page, no particular innovations were made ; the elevations show the clean rectangularity dictated by the need for economy of construction in modern Germany ; neither has the fact that dwelling-houses are included in the group been concealed. The internal arrangements, however, mark certain reforms. The large hall is intended for use also as lecture-theatre and concert-hall ; the gymnasium, with its changing rooms and baths, has a separate entrance for gymnastic clubs ; there are a nursery, kindergarten and crêche, with terraces, covered-in play-hall, paddling-pool and welfare rooms.

Though a sparing use has been made of limestone tiles, the structural material is mainly brick ; the illustration on the opposite page, and the frontispiece to this issue, show the expert craftsmanship with which the medium has been handled. On the following pages are further views of the building.



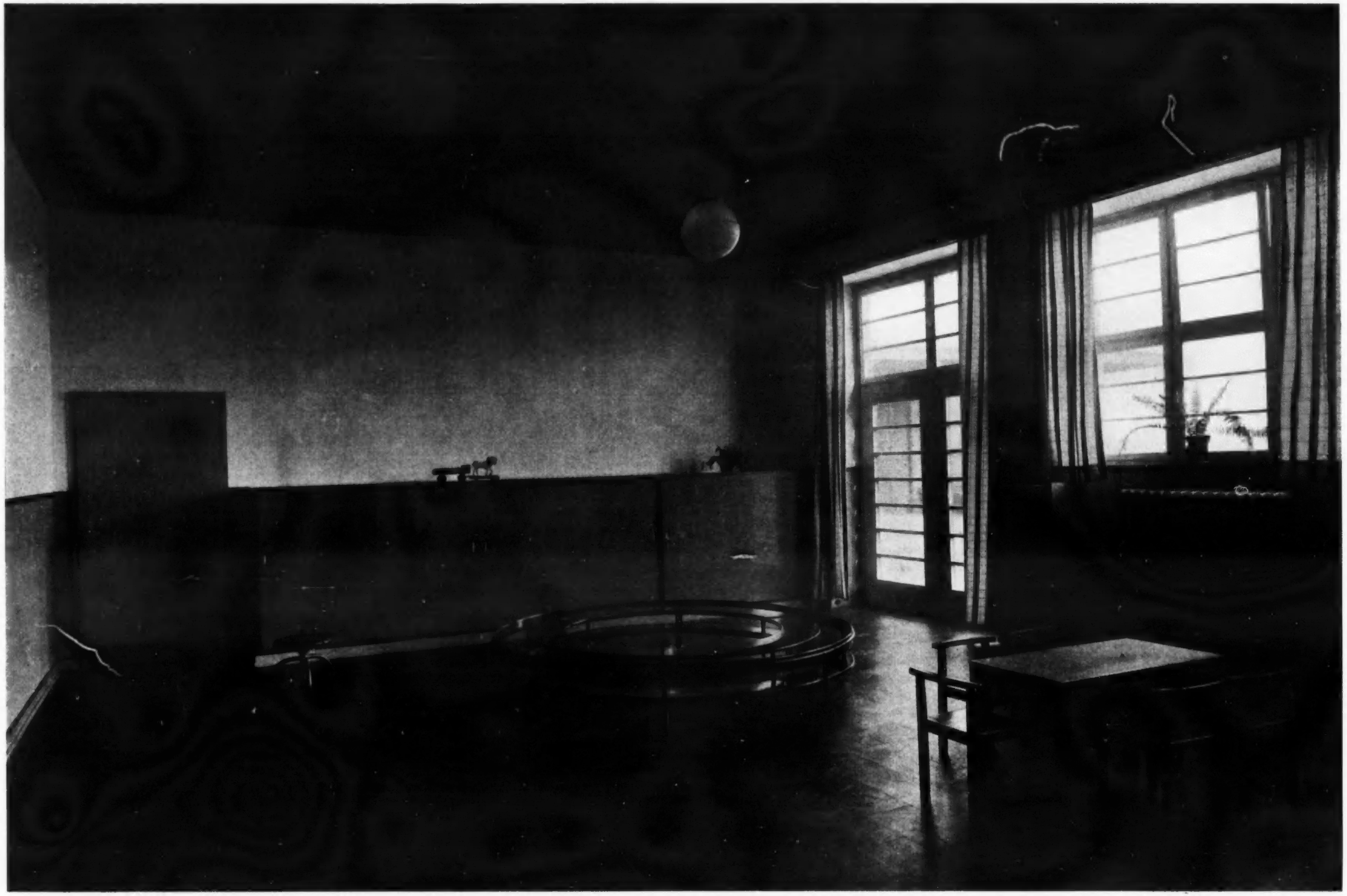
THE KONRAD HAENISCH SCHOOL, FRANKFURT : BY MARTIN ELSAESSER





The upper view is taken from the school playground, and shows one of the entrance doorways ; the lower view is a detail of the patterned brickwork surrounding a companion entrance.

THE KONRAD HAENISCH SCHOOL, FRANKFURT : BY MARTIN ELSAESSER



A kindergarten room, with circular bench-table for infants ; on the school-implement cupboard stands a model toy.

LETTERS FROM READERS

A National Planning Board

SIR,—Knowing nothing of the organization and difficulties of the Building Industry, I propose to submit to you the general reflections to which a study of your interesting New Year issue gave rise in my mind.

The remarks of mine which you quote had immediate reference to industries which were suffering in their efficiency and earning power by unrestricted internal competition: they had a remoter reference to the world difficulties created by unrestricted international competition in the marketing of such a product, for instance, as coal.

Building is clearly an industry which, regarded as a whole, is sheltered from foreign competition; foreign labour cannot design or erect our buildings, though it may supply some of the raw materials. I am unaware whether or not the efficiency of building (or of some of the manufacturing industries dependent on building) is being affected by excessive competition internally, involving loss of profit and waste of capital, or whether its progress is hampered by exactly the contrary defect—a rigidity of high costs which makes its production and services expensive in relation to the general level of costs in the community. In other words, I have not the knowledge which would tell me whether the Industry as a whole resembles, say, the coal industry or the railway industry in this country. In this connection I note that the table of comparative prices given in your New Year issue gives 1914 prices in relatively few cases. But if, in fact, there are defects in the economic structure of the subsidiary building trades, any constructive programme for the industry as a whole would have to be based on rationalization—merely another name for planning—of those trades, which would call for examination by a rather different kind of Planning Board from the main one to which you direct attention.

Assuming, however, that the Industry as a whole is healthy, not over-equipped with capital or labour, and capable of producing at an economic price, its main trouble at the present minute, as your pages bear witness, is a consumer's strike. Personally, I have much sympathy with the views which you express as to the economic effect of a drastic restriction in building programmes, but plainly what is required to alleviate that situation is a Propaganda Board rather than a Planning Board.

I do, however, see one direction in which the Building Industry can initiate or collaborate in national planning, directed to orderly development in the future rather than the immediate present. The chief object of making a plan is to avoid waste expenditure of effort and capital. How much waste has been involved in the last ten years in the construction of new factories and whole housing districts in the south of England while acres of building have been becoming derelict in the north? Does this not provide a chance for planning—of a kind, be it noted, that may conflict with the immediate interests of the Building Industry? And is not the necessity for this planning, which requires a board which must comprise much more than building interests, reinforced by the approaching decline in population, to which attention is directed in an article in a recent issue of *The Times*? This decline, and even more the change in the age structure of the population by which it must necessarily be accompanied, will involve very considerable changes in the kind of buildings and class of construction which will be required in the next twenty years.

ANDREW McFADYEAN

[*The point to which Sir Andrew McFadyean draws attention in his last paragraph is exactly the one that leads many thoughtful people to feel that a National Planning Board—of some kind—is inevitable.*—ED., *A.J.*]

The Winchester Cut

SIR,—Can any of your thousands of readers clearly explain "The Winchester Cut" in weather tiling to the verge up a gable head.

Is this "cut" still used today, and what is the necessity, if any, for it?

No textbooks describe it fully—they simply state that "some tiles up under the verge must be cut fan-shaped."

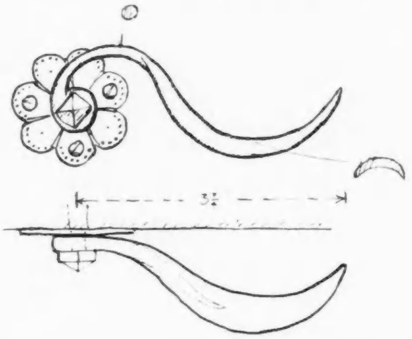
ERNEST W. FAGG

Door Handle Design

SIR,—In these days the shelves of the architect's office groan under an endless array of catalogues. These are mostly very depressing publications and we look in vain amongst the products of the machine for any indication of that friendly human spirit which we find in old craftsmanship.

In nothing is this more noticeable than in door furniture, which is all characterized by the slick shop finish and smart appearance which vulgarizes most modern productions. The old flattish door knobs are discarded for spherical forms like impaled billiards balls, and the pock-marked, so-called "antique" latches are equally repulsive.

The lever type of handle, too, of which there are many beautiful models, in old Swiss houses especially, is only to be had in debased patterns. I enclose a sketch of a handle the design of which is based on the old patterns. Is it too much to hope that some manufacturer might be prepared to supply it at a reasonable price and with a finish which will suggest that it has been made by human hands and not with the soulless perfection of machinery?



M. H. BAILLIE SCOTT

Unemployment

SIR,—I was extremely interested in your leader on Unemployment in the last issue of the JOURNAL, and I should like to draw your attention, and possibly the attention of Mr. S. P. B. Mais—if he is not already aware of it—to what Stuttgart is doing, in the way of building for the unemployed. While this affects neither the ultimate problem of unemployment nor the revival of industry, it *does* do something to ameliorate the immediate hardships and degradations of the unemployed who cannot be left to starve and deteriorate, while the world works out a leisurely "cure."

The enclosed quotation is from the *Monthly Labor Review* published by the U.S. Department of Labour.

H. J. C. CUNNINGHAM

In accordance with the national emergency decree of October 8, 1931, the Stuttgart City Council had by November of that year formulated plans for erecting settlements on the outskirts of the city for labourers of the community and their families, with the two-fold purpose of affording economic relief to the overburdened city welfare bureau and of placing in a new social environment unemployed heads of families who were not expected to find remunerative employment in the near future, *if ever, under existing economic conditions*.

The above-mentioned decree provided that, in cases where cities made land available for settlements, the State, through the German Building and Land Bank, would grant loans through municipal guarantors to unemployed for the purchase of building material for the dwellings to be erected up to 2,500 marks ($595). In Stuttgart the original intention of the emergency decree was modified to the extent that instead of the city accepting loans from the Building and Land Bank, guaranty corporations were formed with municipal approval, which take loans from the Building and Land Bank for the individual builders and future owners of the houses erected. The intermediary capacity of these loan corporations lasts for only the first three years after the first harvest, at which time the tenants take over the loans, pay their interest charges directly to the Land Bank, and obtain title to their lots.

The loans for building material up to 2,500 marks ($595) are granted by the Land Bank at the rate of 5 per cent., including sinking fund, with the exception of the first two years, when they are at the rate of 2 per cent. In addition to this sum, the city of Stuttgart grants loans up to 300 marks ($71·40) for each house, and the labour of the future owners is assessed at 200 marks ($47·60) bringing the total value of the house to 3,000 marks ($714), the maximum limit set by law. In addition, the city provides a lot of 800 square meters in area from its city lands for each house built, which lot is granted at a rental of 3 marks (71·4 cents) per 100 square meters per year to the dweller for the period of 45 years, at the end of which period the ownership of the land reverts to the city. In accordance with the above programme the total charge to each tenant for his house and lot is less than 20 marks ($4·76) per month, which in comparison with 40 marks ($9·52), the average monthly rental paid by the same families for city tenants, shows a substantial saving. An added provision is that the occupants are exempted from all taxes during the period of their occupancy. The erection of the house is carried on by the persons destined to live in it after completion. The membership of the community settlements is chosen by the city welfare bureau, and in its choice care is taken to include, in each construction group of 10 or 12 persons sent out, a sufficient number with the technical ability to superintend the manual labour needed and to perform themselves the more intricate building operations. Each house is built by such a group, one man exchanging his labour for that of another; the group continuing until all the houses, in which the families accounted for therein, have been completed. The laying of gas, electric, and water lines, however, demands more manual labour than a group of ten or a dozen persons could perform. To meet this demand the city has encouraged the voluntary labour service movement (Freiwillige Arbeitsdienst) by accepting the services of those receiving unemployment benefits who offer their labour without compensation for the sake of having something to do. By these methods the settlements are built on city land with national means through the labour of their future owners and with the assistance of the brotherhood of unemployed.

The garden belonging to each house will enable the occupants to keep a few chickens and perhaps a goat, and to raise enough fruit and vegetables to make the family practically self-supporting during the summer months at least, and to raise a supply of such staples as potatoes sufficient for the greater part of the year.

The late Percy Tubbs

We record, with deep regret, the death of Mr. Percy Burnell Tubbs, F.R.I.B.A., senior partner in the firm of Messrs. Percy Tubbs, Son and Duncan, which took place in a London nursing home on Friday last, in his sixty-fifth year.

The third son of the late Henry Thomas Tubbs, J.P., he was educated at Highgate School, and commenced practice in 1894, after being articled to the late W. Patterson and studying in Paris. He designed numerous buildings in London and elsewhere, including premises for Lloyds and Barclays Banks, a housing scheme of flats at Chelsea, new offices for *The Glasgow Herald*, in Fleet Street, and many factories, schools, houses and war memorials. He also carried out some work in France, including a factory at Colombes. He was President of the Society of Architects during 1912-1914, and was largely instrumental in the founding of the First Atelier of Architecture, promoted by the Beaux Arts Committee, being always closely identified with its work; he also took a very active part in the preliminary work which ultimately led to the establishment of the Commission of Fine Art.

During the war Mr. Tubbs gave up much of his time to work for the welfare of troops passing through London, and it was he who invented the scheme whereby soldiers on leave were met at the station by members of the City of London National Guard. His interests apart from architecture included photography, in which he made early experiments in colour work.

He married Alice Maude, younger daughter of the late Frederick Augustus Waite, Barrister-at-Law, had four sons, two of whom served during the late war, one being killed in action.

Carlton House Terrace

At the first meeting of the general committee, held at Caxton Hall on Thursday last, the chairman, Sir Arthur Steel-Maitland, M.P., stated that the immediate object of the Carlton House Terrace Defence Committee was to protect the Mall, the great processional road in the capital.

The Crown Commissioners were allowing to be raised there a "sky-scraping monstrosity," and the Committee had not given up their efforts to get it stopped.

Carlton House Terrace was not an isolated case. Sky-scraping flats would have covered the Crown site of Bute House, if the Cabinet had not heard of the proposal in time and put a stop to it. They all knew what a mess had been made of Regent Street.

The chairman read a large number of letters from distinguished people who supported the protest, including the Archbishops of Canterbury and York, Sir William Llewellyn, President of the Royal Academy, and the late George Moore.

Sir William Llewellyn wrote: It is to be hoped that a much-concerned public will not be much longer kept in ignorance as to the intentions of those with whom a decision rests . . . if those in authority are only reasonable I am sure we shall not be disappointed.

Mr. George Moore wrote, in what was probably his last letter: They have done enough mischief in Park Lane and elsewhere to stay their hands; but no, the moment they see a fine building they form a plot to pull it down. Yesterday it was Park Lane, today it is Carlton House Terrace, and tomorrow it will be the churches in the Strand.

Mr. J. C. Squire, vice-chairman of the Committee, outlined its formation and objects, which are sufficiently well known to our readers. Carlton House Terrace and Gardens were not the end of the issue. When they had finished with that matter, it was to be hoped there would grow out of the movement a permanent vigilance committee to look after the public amenities such as Carlton House Terrace and the Adelphi. They had received among their subscriptions shillings and sixpences from domestic servants.

Two resolutions were carried unanimously by the large, influential and enthusiastic company.

The first, moved the Bishop of Southwark, in the absence of Sir William Llewellyn, condemned the erection of the present building at No. 4 Carlton Gardens, and the lack of regard for the Fine Art Commission, and urged the Government to make a change in the administration of the urban Crown properties, so that Parliamentary and public opinion should have the right to be consulted in the future before drastic alterations were made which prejudiced the amenity of Crown properties.

Mr. Frank Pick seconded, in the absence of Mr. G. K. Chesterton, and Lady Oxford and Asquith, in supporting the motion, urged all present to put all the pressure they could on local Members of Parliament. She said:—

We have seen a number of famous buildings come down and seen hideous buildings and empty flats in their places. We ought not to be led like sheep; in Paris, in Berlin and in Vienna it would not be allowed.

The second resolution, for the appointment of an Executive Committee, was proposed by Sir Leslie Scott, K.C. He said:—

The objects of the Committee should be to devise and recommend machinery which would prevent a repetition of this scandal of the Crown Lands question, and would ensure that due regard should be paid in all urban rebuilding and re-development to the amenity aspect. The Committee might also take suitable steps to bring about necessary legislation, and form an influential and representative body for stimulating public interest and guiding public opinion in urban amenity.

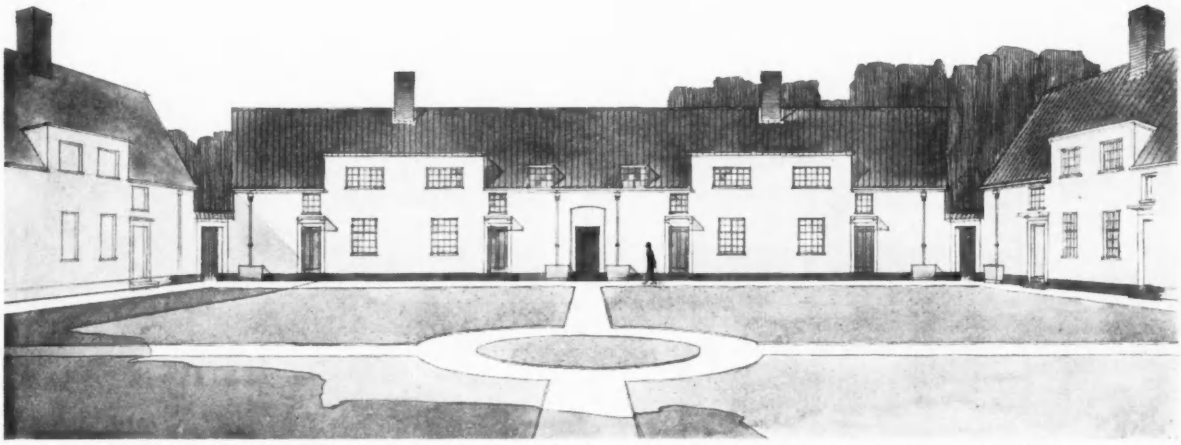
Dr. H. Costley-White, headmaster of Westminster School, seconded.

On the motion of Mr. A. C. Bossom, M.P., votes of thanks were passed to the chairman and vice-chairman.

The names of the Executive Committee preliminarily elected are as follows:—

The Rt. Hon. the Earl of Ilchester, Trustee of the British Museum and National Portrait Gallery; The Rt. Hon. the Earl of Lytton, P.C.S.I., G.C.I.E., President, Garden Cities and Town Planning Association; the Rt. Hon. Viscount Burnham, G.C.M.G., C.H., P.D.; The Rt. Hon. Viscount Esher, Chairman, S.P.A.B.; The Rt. Hon. Lord Conway of Allington; The Rt. Hon. Lord

COTTAGES AT BYFLEET: BY PAKINGTON, ENTHOVEN AND GREY



Perspective drawing of the scheme of twelve houses for the Chertsey Rural District Council, illustrated overleaf.

O'Hagen; The Rt. Hon. Earl Crawford and Balcarres, P.C., K.T.; A. C. Bossom, M.P., F.R.I.B.A.; John Buchan, C.H., M.P.; Capt. H. Crookshank, M.P.; Sir William Davison, M.P., K.B.E.; The Most Honourable The Marquess of Hartington, M.P.; A. H. E. Molson, M.P.; Lord Scone, M.P.; Sir Arthur Steel-Maitland, Bart., P.C., M.P.; The Rt. Hon. Earl Winterton, P.C., M.P.; Sir Lionel Earle, K.C.V.O., C.B., C.M.G., J.P.; J. C. Squire; H. de Cronin Hastings, Editor of THE ARCHITECTS' JOURNAL; Dr. Thomas Adams, F.R.I.B.A.; Frank Pick; Sir William Llewellyn, G.C.V.O., President of the Royal Academy; Sir Raymond Unwin, P.R.I.B.A.

Town Planning Institute

A dinner to the Rt. Hon. Sir Edward Hilton Young, G.B.E., D.S.O., D.SC., M.P., Minister of Health, will be given by the Town Planning Institute at the Savoy Hotel, W.C., on Friday, March 24, at 7.15 for 7.45 p.m. The dinner has been arranged on the eve of the coming into operation of the Town and Country Planning Act, 1932. The price of tickets, obtainable from Mr. Alfred R. Potter, Secretary, 11 Arundel Street, Strand, W.C.2, is 15s. (exclusive of wines).

The annual dinner of the Institution of Electrical Engineers will be held at Grosvenor House, Park Lane, W.1, on Thursday, February 16, under the Presidency of Professor E. W. Marchant, D.SC.

Registration

As pointed out in a circular letter issued by the Architectural Association for the benefit of its members, the Architects' Registration Council of the United Kingdom is prepared to receive applications for admission to the Register of Registered Architects.

A copy of the Council's Regulations, together with the prescribed form of application, containing details of qualifications and procedure, may be obtained, price one shilling, at the Offices of the Council, 18, Abingdon Street, Westminster, London, S.W.1, between the hours of 10 a.m. and 5 p.m. (Saturdays 1 p.m.) or by post if a remittance of one shilling is enclosed.

Courses for Teachers

The Board of Education have arranged a short course of lectures for teachers in recognized technical colleges, art schools, etc., in England and Wales, to be held in London and the provinces during July and August. The subjects to be treated include building, painting and decorating, electrical engineering, etc. The building course (London: July 24 to August 3 inc.) will be conducted by J. L. Manson, H.M.I.

Full particulars of the courses may be obtained from the Secretary, Board of Education, Whitehall, London, S.W.1.

Building Centre Reception

At a reception held at the Building Centre, 158 New Bond Street, W., last week, in connection with the King Edward's Hospital Fund, the guests were received by Viscount Burnham, on behalf of the Fund, and Mr. and Mrs. Sidney Gluckstein, on behalf of the directors of the Centre.

Since the King's Fund miniature hospital has been on exhibition at the Centre, it has been visited by about 10,000 people. The directors handed over a cheque for £200 to the Fund on account of the contributions collected.

The miniature hospital was illustrated in the JOURNAL for January 18.

Industrial Art

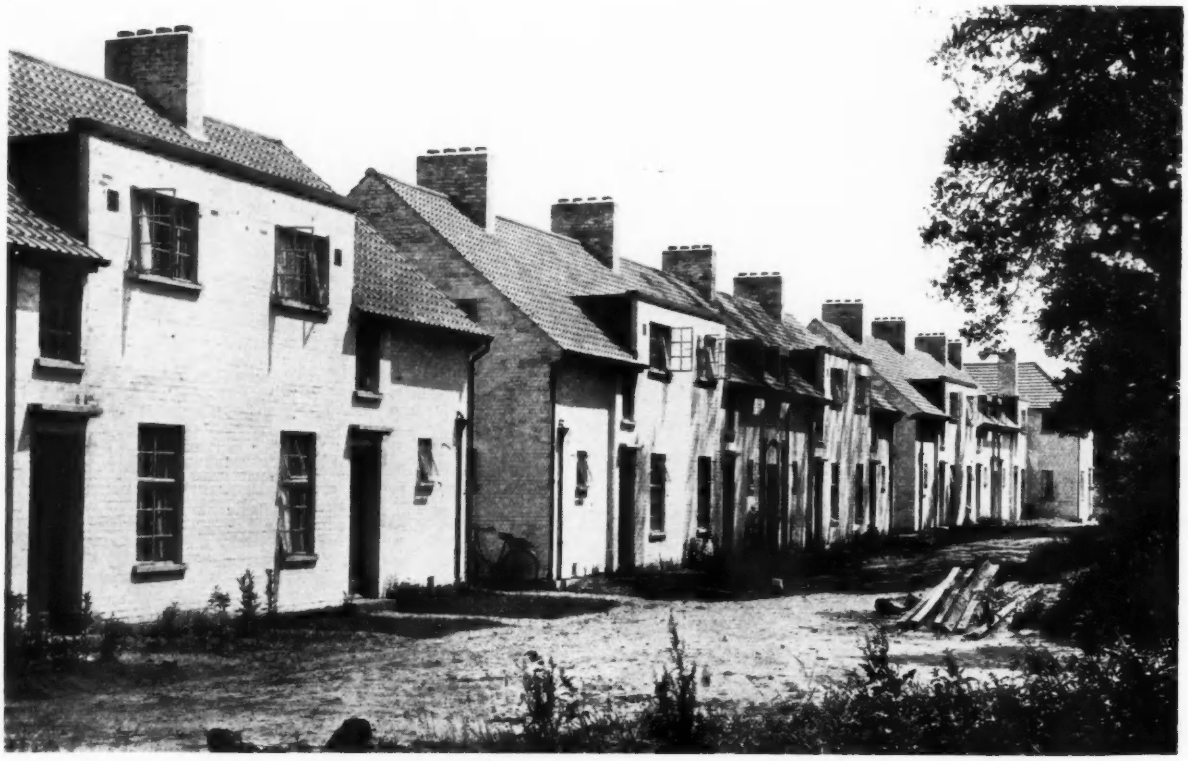
The Council of the British Institute of Industrial Art have elected the following four new Fellows:—Captain J. R. I. Brooke, M.B.E. (Director of the Rural Industries Bureau); Professor E. M. O'R. Dickey (Chief Art Inspector of the Board of Education); Captain C. Geoffrey Holme, M.B.E. (Editor of *The Studio*); and Mr. Keith Murray, A.R.I.B.A. (designer of glass). These elections bring the total number of Fellows to 134.

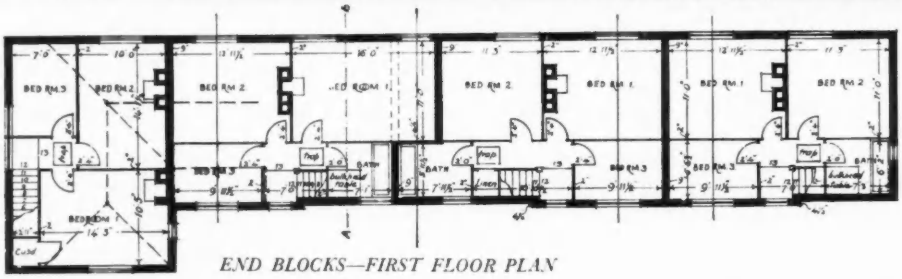
The Brangwyn Panels

The Brangwyn panels, a series of decorative panels designed by Mr. Frank Brangwyn for the redecoration of the Royal Gallery of the House of Lords, are to be exhibited for the first time at the *Daily Mail* Ideal Home Exhibition, which is to be opened by Mrs. Stanley Baldwin at Olympia, London, W., on March 29.

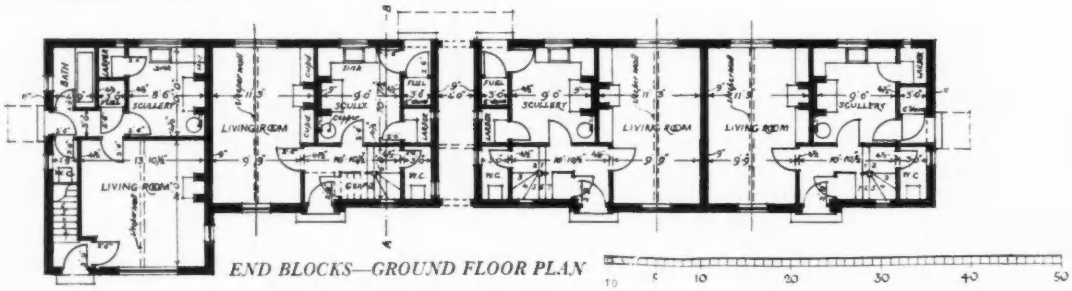
The exhibition will remain open until April 29.

COTTAGES: BY PAKINGTON, ENTHOVEN AND GREY




BED RM.3
BED RM.2
BEDROOM 1
BED ROOM 1
BED RM 2
BED RM 1
BED RM.3
BATH
PROP
LINEN
A
B

END BLOCKS—FIRST FLOOR PLAN


BATH
LARDER
SINK
SCULLERY
SCULLY
LIVING ROOM
FUEL
W.C
COALS
A
B
10
5
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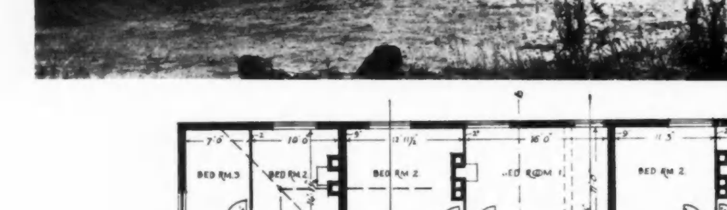
40
50

END BLOCKS—GROUND FLOOR PLAN


F
SC
L.R.
L.R.
SC
F
L
W.C
W.C
REPEAT.

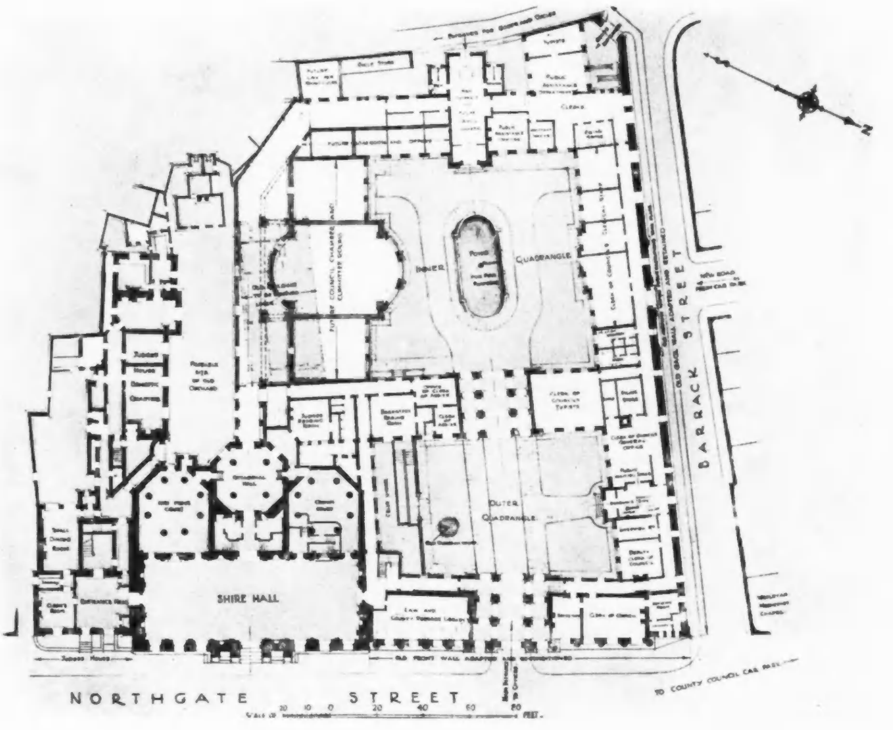
CENTRE BLOCK—GROUND FLOOR PLAN

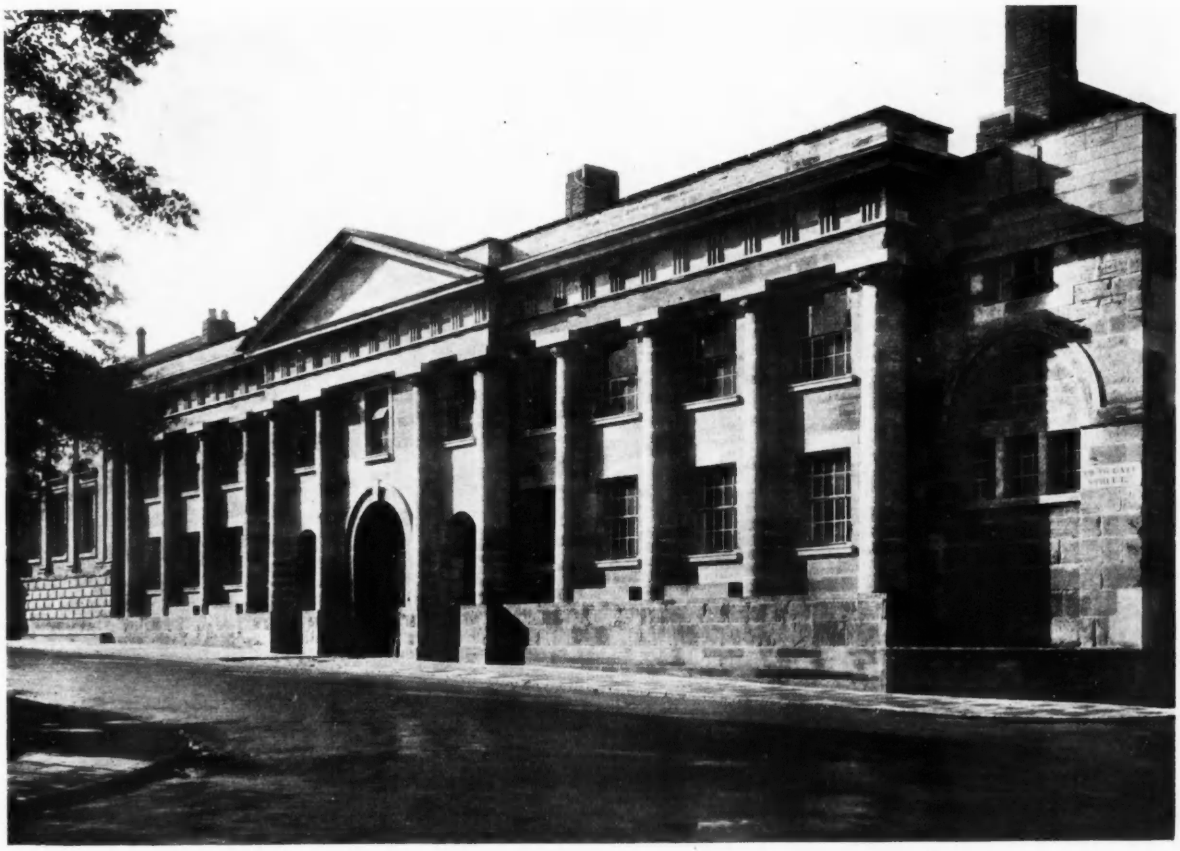
The housing scheme of twelve cottages, in Oyster Lane, Byfleet, Surrey, illustrated here, with a perspective view on the preceding page, was undertaken for the Chertsey R.D.C. The contract price was £6,643 13s. 0d., and the cost per foot cube is given as 1s. 1d.

The cottages are built of colour-washed brick, with orange-red roofs of interlocking tiles. The doors are of the single-panel type, and the windows are metal casements.

WARWICK COUNTY OFFICES: BY A. C. BUNCH

The ancient Shire Hall of Warwick, after many vicissitudes, has been altered and reconditioned, as shown in the view taken from Northgate Street and reproduced below, from designs by the county architect of Warwickshire, to form the entrance-nucleus of the new County Offices. On the adjacent plan the new work is shown in white. The whole of it is of steel-frame construction, cased throughout in concrete, while the majority of the external walling is in brickwork with a 2-ins. cavity. Reconstructed stone has been used for dressings and other masonry features. The timber roof, supported on steel principals, is covered with old Westmorland slates obtained from a demolished mansion, supplemented by grey-greens. The cost, including all services, furniture and fittings, is about £107,000.


INNER
QUADRANGLE
OUTER
QUADRANGLE
SHIRE HALL
OLD GAOL WALL ADAPTED AND RETAINED
OLD FRONT WALL ADAPTED AND RECONDITIONED
BARRACK STREET
NORTHGATE STREET
20 10 0 20 40 60 80
FEET
TO COUNTY COUNCIL CAR PARK



HOUSING PROBLEMS IN 1933

Last Week's Conference

BY E. MAXWELL FRY

THE solution of the housing problem involves the consideration of three major factors—which are: the nature and circumstances of those that are to be housed; the legislative machinery for housing them; and the economic situation in which the operation is carried out. From year to year the character of housing has varied with the alterations apparent in these factors. In the years succeeding the war the dearth of houses was such that the artisan and the higher-paid worker was capable of absorbing some millions of houses before the lower strata were touched, and it has not been until recent years that the pressure of overcrowding in the towns, coupled with more stringent economic conditions, have forced the dual issue of slum clearance and the provision of very small houses into the political forefront.

It might be said that the problem of housing the lower strata of society has been present from the beginning, and has been passed over from expediency rather than from any other cause, and it has only been due to the inability of completed programmes to reduce urban overcrowding in any substantial way that it has been necessary to evolve new legislation to cope with what we may call a new situation, but which is in fact a chronic ailment only now properly diagnosed.

As first contributor of a series of articles upon *A National Housing Programme*, to be published in *The New Statesman and Nation*, Mr. E. D. Simon draws attention to the discrepancy in the machinery proposed by Parliament to deal with the changing situation. The Wheatley Act, framed to deal with the situation as it presented itself at that time, set out to build houses, and paid no attention to the slum problem. The Greenwood Act, coming at a time when slum clearance was looming large upon the horizon, granted a subsidy for any new house built that simultaneously involved the demolition of a slum house. Using Manchester as an example, Mr. Simon points out that the slum problem was such that the operation of the Greenwood Act was powerless to better the situation, since each slum house pulled down left a family bereft of lodging, while there still remained a large unhoused population capable of filling up slum dwellings vacated for new houses built. He makes a plea for the creation of very much greater improvement areas for slum clearance on a scale that might hope within measurable time to lower the number of people without houses, either within or outside urban centres, and the situation he draws upon for his example serves to illustrate very forcibly the acuteness of the need for a long-term programme, and its immensity.

At this moment, while the unhoused population is nearly as great as ever it was, and the state of overcrowding in the towns worse perhaps than it was twenty years ago, we have at our command resources waiting for employment. Building costs are very low, unemployment in the Building Industry is high, and there exists a very strong desire among all sections of this great industry to pool its resources for the benefit of a national regeneration from which the industry should draw benefit. The events of the past two or three years have served to show that no problems are local, and that the well-being of vast sections of the population cannot be left to the play of sectional interests. The time is ripe for action on a national programme.

It is the pressure of these needs forcing us to acknowledge the gravity of the situation that has brought about the Conference on Housing called by the President of the R.I.B.A. and presided over, very fittingly, by Sir Austen Chamberlain, P.C.

The idea of having a conference was to thrash out, as far as a conference of this sort could, the terms of a resolution to be put forward to the Government. It has been felt that to allow housing at this moment to escape from some form of national control would be an act of folly. There are many who believe that housing costs have reached a point when a subsidy is no longer of vital importance; though there are many who doubt whether in practice small houses could be built to be let at economic rents. It has been a temptation to make use of the vast sums invested in building societies for the creation of new houses, but there again there has been present a very healthy doubt as to whether the proposition of building really cheap houses would present itself to capitalists in a favourable light.

If cheap houses are not to form the major part of our next programme, the effort will largely be in vain, for we have reached the point when cheap houses and slum clearance have got to be tackled in real earnest, and as one problem. Control is a matter of as great urgency as ever it was: not only architectural control but financial. It has seemed obvious to those who have gone into the question that houses of the smallest class could be built only on money borrowed at a very low rate, lower probably than the building societies would be prepared for.

Gradually there has evolved, in the minds of those who have considered the newly-presented problem in detail, an organization in the form of a National Public Utility Housing Board—something not entirely Governmental, yet with its funds guaranteed, if necessary, by the State, and paying only a low rate of interest.

The resolution sent up by the Conference urged that such an organization should be very fully explored in conjunction with the authorities and interests concerned, and with the assistance of the Minister of Health.

The Conference went on to add to this a second resolution, urging the Government, while it took steps to maintain an adequate supply of dwellings for lower-paid workers by encouraging the local authorities to build dwellings without subsidy, to facilitate the developing of improvement areas under the 1930 Housing Act on a large scale to deal rapidly with the overcrowded families in these areas.

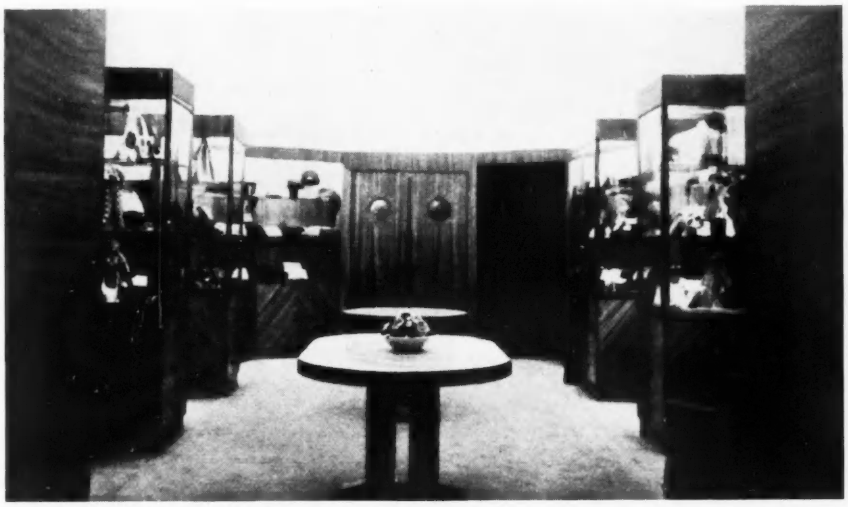
The Conference did little more than explore the outer fringes of matters affected by the resolution passed, but enough was said by Sir Austen Chamberlain and other speakers to indicate the complexity of the situation today, and we have to deal as much with old property as with new.

The Marquess of Salisbury, in particular, emphasized the need for reconditioning, and it will be realized that he speaks with the experience of a large landowner of small property who is very actively engaged in a reconditioning scheme of some magnitude. But a detailed examination is out of place at this point, and it will be better for the purpose of giving this Conference its due weight to look once again at the larger aspects of a national organization. To do this we must return to the problem raised so capably and eloquently by Sir Raymond Unwin, and underlined by Professor J. M. Keynes in the last speech at the Conference.

"We have today," said Mr. Keynes, "a quarter of a million building operatives unemployed. We have a decline in rate of interest and building costs lower than we have experienced since before the War." As a result, the rental to be expected was only 60 per cent. of that which would have been needed five years ago. We have therefore the opportunity now of gaining the fruits of the great Conversion scheme. If it could benefit the Treasury

(Continued on page 211.)

LEATHER HANDBAG SHOWROOM

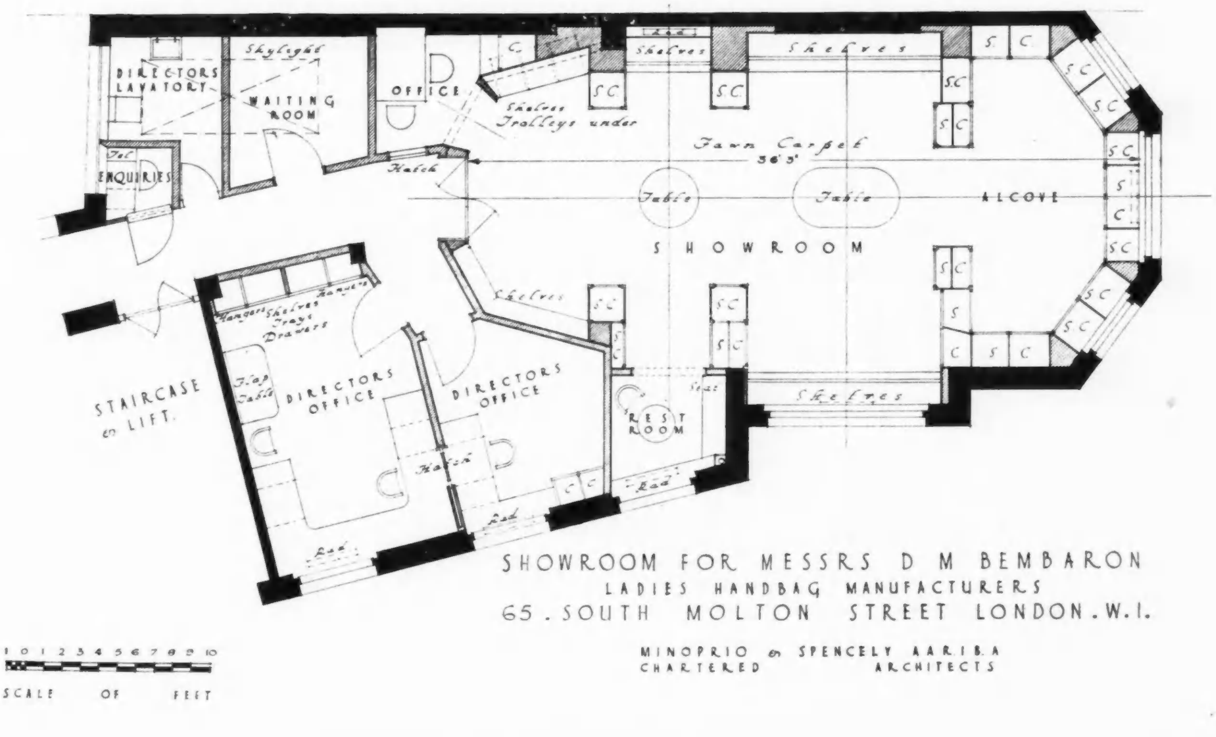


DESIGNED BY MINOPRIO AND SPENCELY

The showroom and offices illustrated here and overleaf were planned, in conjunction with a factory, to meet the needs of an expanding business, in reconstructed three-floor premises at the corner of South Molton Street and Brook Street, W. The factory, accommodating 200 workers, was placed on the two upper floors, and the showroom and private offices on the first floor, with the general offices, stock-room and packing room.

Inside the showroom, seen above, the woodwork is of Australian walnut. The showcases consist of three tiers of drawers, with herring-bone veneer and solid walnut handles, surmounted by open shelves or glass cabinets. They are lit by electric strips hidden behind the projecting canopy. The ceiling is painted with pale blue and white clouds and the walls are a warm buff stippled with pale Indian red. The general lighting is diffused from concealed lamps above the six projecting showcases. Bays are provided in which customers can make their selection of goods. On the right of the door is a small room which can be curtained off for interviews. The room has a greyish-fawn carpet, brown curtains, and grey corduroy upholstery on the chairs.

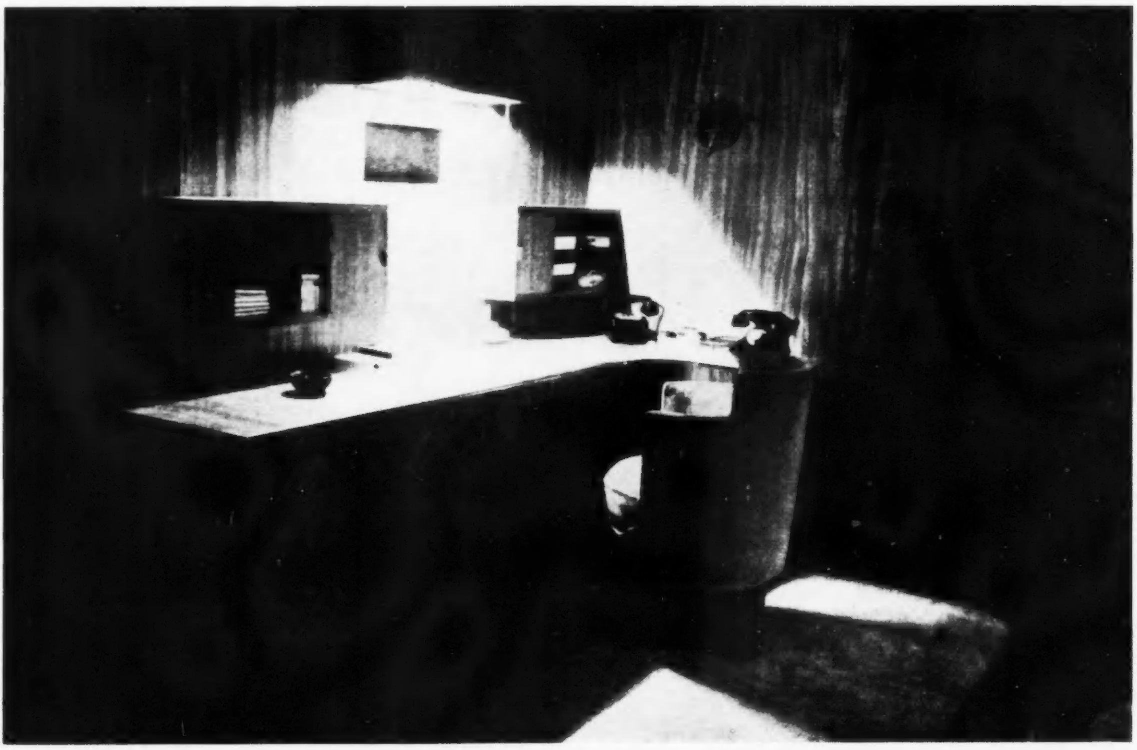
The two private offices are panelled in Australian walnut to a height of 7 ft. 5 ins., and painted above. Both rooms are provided with built-in desks and cupboards. Desk lights are enclosed in boxes placed over the sliding panel between the two rooms. The stud partitions of these offices are sound-proofed with eel-grass quilting.


DIRECTORS LAVATORY
Skylight
WAITING ROOM
OFFICE
C
Shelves
Shelves
S C
S C
S C
S C
Tel
ENQUIRIES
Shelves Trolleys under
Fawn Carpet
36' 3"
Hatch
Table
Table
ALCOVE
S
C
SHOWROOM
Shelves
Hangers
Shelves
Trays
Drawers
STAIRCASE & LIFT
Flap Table
DIRECTORS OFFICE
DIRECTORS OFFICE
Hatch
REST ROOM
Seat
Shelves
Rad
Rad
Rad
Rad
1 0 1 2 3 4 5 6 7 8 9 10
SCALE OF FEET

SHOWROOM FOR MESSRS D M BEMBARON
LADIES HANDBAG MANUFACTURERS
65. SOUTH MOLTON STREET LONDON. W.1.

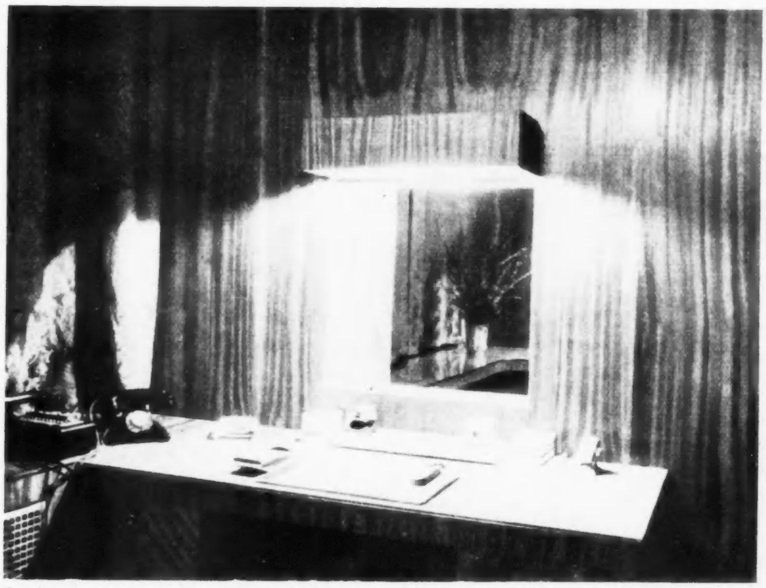
MINOPRIO & SPENCELY A.A.R.I.B.A
CHARTERED ARCHITECTS

LEATHER HANDBAG SHOWROOM • DESIGNED BY



In the larger of the directors' offices: the desk and hatchway; and a view from the doorway.

MINOPRIO AND SPENCELY



In the directors' smaller office: the hatchway, through which is seen a glimpse of the larger office.

by the saving of interest, the whole community should benefit to an even greater extent, for there has been a new level of rates established and we can talk business without having to invoke large elements of subsidy. It was not going to be a question of the community having to make a great sacrifice, for the rest of the people would gain immeasurably if a great movement of this sort was set going. The increased employment would not only help the men at present unemployed; it would help those with whom they would spend the wages they were not now receiving; it would save the Treasury from expending from the dole; and so on. "The figures," said Mr. Keynes, "are staggering."

His conclusion was that if one spent £30,000,000 on housing it would probably increase the national income by £60,000,000 in one way and another; and putting into work about a quarter of a million men, one saved £15,000,000 on the dole. Today, with the high level of taxation and 20 per cent. of the national income returning to the Chancellor of the Exchequer in taxes, this increased income would produce something like £12,000,000 of new taxable revenue, in addition to saving £15,000,000 on the dole. Such a measure as the one proposed, by increasing the national income and also the well-being of the people, would help the Treasury enormously, for 90 per cent. would go back in benefit to it.

Mr. Keynes, in conclusion, said that it was a thing well worth doing, and he was willing to stake any reputation he might have that he was not in error.

More than this, I would, myself, make the point that if our new housing programmes are to be national planning, in the best sense of the word, they must rest upon a basis of town planning. New housing outside the towns, slum clearance, even reconditioning, cannot be isolated from the present need to make workable machines of our towns under modern conditions. The waste involved by unplanned reconstruction is not good to think upon. Probably what we require more than anything else as a ground plan for a new programme is a nationally co-ordinated survey of existing conditions. From this, efficiently carried out, there would emerge a programme well founded on fact to carry us forward for the next decade.

LAW REPORTS

CONTRACTORS' LIABILITY

G. N. Haden and Sons, Ltd. v. *Higgs and Hill, Ltd.—King's Bench Division. Before Mr. Justice Swift*

THIS was an action by G. N. Haden and Sons, Ltd., heating engineers, of Trowbridge, Wilts., against Higgs and Hill, Ltd., builders and contractors, to recover £6,994 for which they alleged the defendants were liable to them in respect of contracts they had entered into during the years 1930-1931 for the supply, delivery, and work of horizontal inlet and extraction ducts from the sub-basement level to the roof of premises in Hereford Gardens, which were being erected for Gamages (West End), Ltd., which company had gone into voluntary liquidation, and for the erection of which building Higgs and Hill, Ltd., had the principal contract.

The defence was that the sub-contract with the plaintiffs expressly provided that the plaintiffs should at no time be entitled to be paid in respect of their work a greater sum than that which had at the time been paid to the contractors (the defendants) under the principal contract in respect of such sub-contract work, and that the final balance should only be payable as, and when, the contractors received their final payment, under their contract, and that as Gamages (West End), Ltd., went into voluntary liquidation and the defendants had not received their final payment under the principal contract, defendants were not liable to pay plaintiffs the sum claimed.

His lordship, after hearing the evidence, in giving judgment, held, upon the construction of the contract which the plaintiffs had entered into with the defendants, that plaintiffs were entitled to be paid by defendants the balance of their account for the plant and material supplied, and the work and labour done. He said the fact was that the defendants had had a settlement with Gamages (West End), Ltd., but it was a very unsatisfactory settlement so far as defendants were concerned. He was of opinion, however, that under the terms of the contract between the plaintiffs and defendants, the plaintiffs were entitled to judgment for the sum claimed with costs.

His lordship granted a stay of execution on terms pending an appeal by the defendants.

INJUNCTION AGAINST SALE REFUSED

Harvey v. *Lloyds Bank Ltd.—Chancery Division. Before Mr. Justice Luxmoore*

THIS was a motion by Mr. Martin Wm. Harvey, lessee of Berkeley Court, a block of shops and flats in Baker Street and Marylebone Road, W., for an interim injunction to restrain the defendants, Lloyds' Bank, Ltd., first mortgagees of the property, from selling it for £520,000 to the Eagle, Star and British Dominions Investment Co., Ltd., the second mortgagees.

Mr. F. E. S. James, for the plaintiff, said his client's case as to the property, which had cost £800,000 to erect, was that it was now worth at least £610,000. His client had not succeeded so far in obtaining a firm offer for the property of more than £520,000. He, however, had had it valued and his valuers put its value at the moment at £620,000.

Mr. W. F. Waite appeared for the Bank, and said his clients had also had a valuation of the property made, and it showed a very different figure to that submitted to the Court by the plaintiff. He added that there was default in payment of the interest and the mortgages 18 months ago.

His lordship said that the plaintiff had not been able to procure a better offer, and the question whether the proposed purchase price was proper could be determined if and when the action came before the Courts for trial. He accordingly refused the plaintiff's motion.

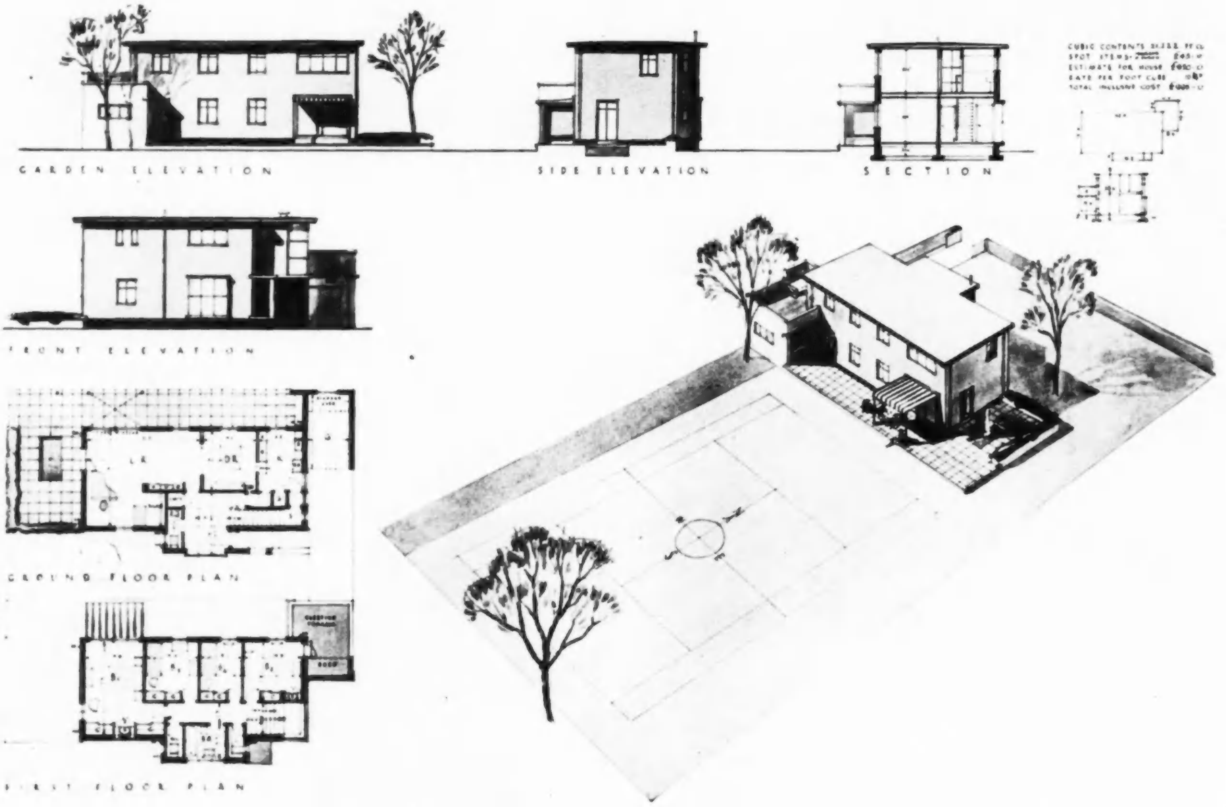
PERPETUAL YEARLY RENT CHARGES EXTINGUISHED

Sykes v. *Williams.—Court of Appeal. Before the Master of the Rolls and Lords Justices Lawrence and Romer*

THIS was an appeal by the defendant, Mr. Edward Williams, from a judgment of Mr. Justice Eve, sitting in the Chancery Division, in favour of the plaintiff, Mr. H. R. Sykes.

In the Court below, the plaintiff sought to recover the possession of a certain

COMPETITION FOR CEMENT HOUSES : DESIGN BY E. MAXWELL FRY



Detached four-bedroom house, with garage incorporated, costing £1,000 to build, excluding profits, land and fees. Awarded one of the two second prizes (fifteen guineas) for Type D of the Cement Marketing Co., Ltd.'s competition. For the assessors' criticism of this design (by E. Maxwell Fry, of Adams, Thompson and Fry) and others reproduced in this week's Supplement, see page 198.

plot of land at Edgeley, near Stockport, and claimed that he was entitled to exercise the power of re-entry in the events that had happened. It appeared that in 1912 plaintiff granted to the defendant a plot of land, creating a perpetual yearly rent charge of £25 upon it and the buildings to be erected thereon. This charge was to be paid half-yearly in March and September, and was to be subject to the usual statutory powers and remedies for its recovery. The defendant covenanted on his part to pay the rent charge. The conveyance contained a power of re-entry should the rent charge be a year in arrear, or upon any breach of the covenants during the lives of Queen Victoria or her survivors and for 21 years after the death of the last survivor.

The plaintiff's case was that four houses had been erected on the land, and that no part of the rent charge had ever been paid.

Defendant in his reply contended that by virtue of the Real Property Limitation Acts, 1833 and 1874, the yearly rent charge and the rights of re-entry were barred. In the alternative defendant sought relief from the forfeiture.

Mr. Justice Eve held that the plaintiff was entitled to the relief he claimed, but he granted relief to the defendant on his paying 10 years' arrears of rent, with interest, and entering into a new deed to pay £25 a year rent.

It was from this decision that the defendant now appealed.

Sir Gerald Hurst, K.C., argued the case for the appellant, and Mr. Henry Johnston for the respondent.

The Court allowed the appeal with costs, holding that in the circumstances of the case the plaintiff was not for the time being the owner of the rent charge.

The Master of the Rolls, in giving judgment, said in this case the important date was in March, 1925, when twelve years had elapsed without payment of the rent charge, as, under the Acts, the right to recover the rent charge and arrears had become extinguished. Then the next point was that the writ in the action was not issued for more than 7 years after that, viz., in 1932. Under these circumstances the Court had to see whether at the date of the writ the rent charge and the powers as to recovery, had been barred and were extinguished. As the respondent's counsel did not challenge that both had gone, what was left? Respondent put forward that there was a proviso in the conveyance for right of re-entry, and that it accrued at each half-year following the non-payment of the money. The proviso only gave respondent the right to re-enter on failure to pay the rent charge. The question was in what sense was the respondent owner of the rent-charge. It had been admitted that everything connected with the charge had been extinguished, and therefore the respondent was not the owner of the rent-charge for the time being. The appeal, therefore, succeeded, and would be allowed with costs.

Lords Justices Lawrence and Romer concurred.

British Museum Appointment

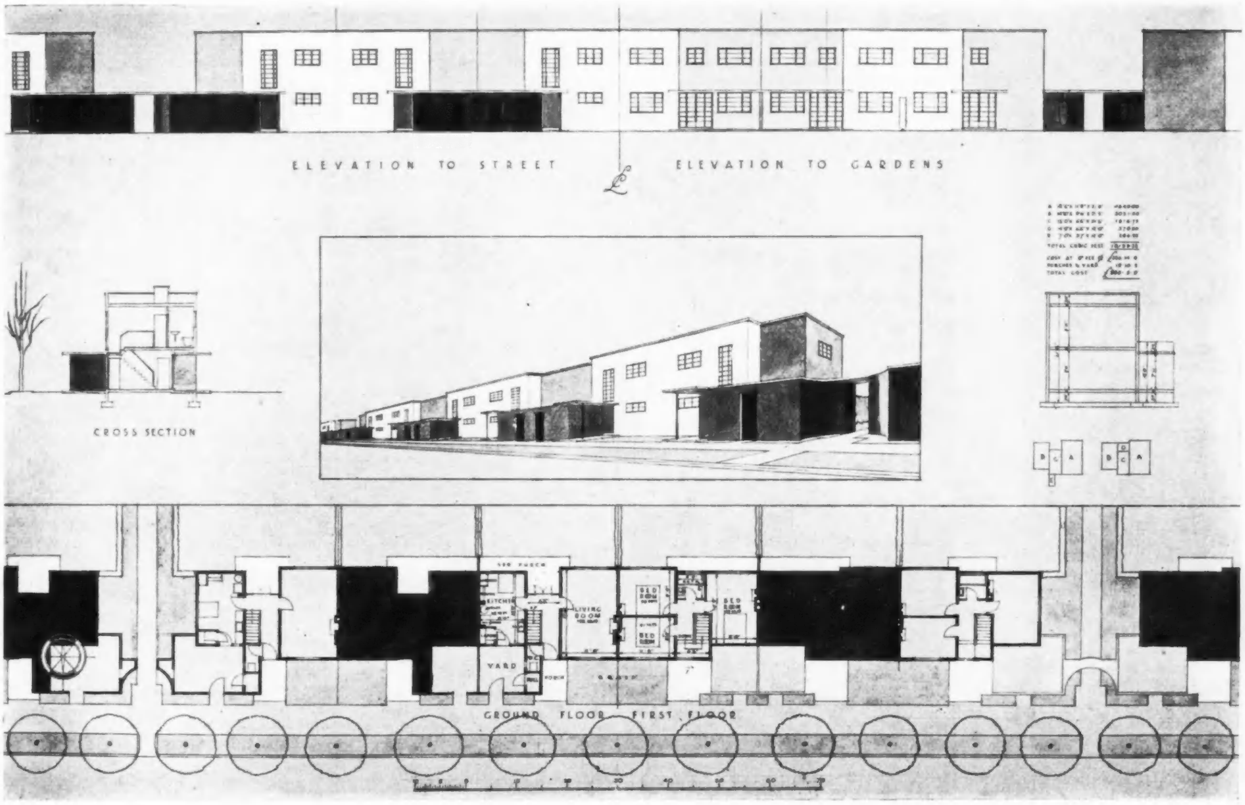
Sir Charles Reed Peers, C.B.E., F.R.I.B.A., Chief Inspector of Ancient Monuments to the Office of Works and the Royal Gold Medalist for 1933, has been elected a Trustee of the British Museum in place of the late Viscount Dillon.

The City of the Future

That sun, air and verdure, in cities of 50,000 to 200,000 inhabitants, living in pleasant and practical dwellings, should characterize the city of the future is the opinion of Sven Markelius, a Swedish architect, given in opening a round-table discussion between a number of Sweden's modern architects, recently broadcast from Stockholm.

The big city will disappear, Mr. Markelius said, and will be spread over a wider area through regional planning

COMPETITION FOR CEMENT HOUSES : DESIGN BY E. WAMSLEY LEWIS



A terrace three-bedroom house, costing £500 to build, and suitable for a scheme of forty-eight houses in terraces of six. The assessors' criticism of this design, awarded a special prize of fifteen guineas in Type A of the Cement Marketing Co., Ltd.'s competition, is given on p. 198.

but held together as an integral unit. The dwellings and working places of the city people will, through a successive reorganization of the big towns, be rationally distributed, and the city of the future will by no means look like the picture given in the famous film fantasy "Metropolis" with gigantic masses of houses and a seething whirlpool of traffic.

Mr. Hakon Ahlberg voiced the opinion that the big cities will continue to grow while the small towns will remain stagnant or disappear. Sven Wallander, the creator of the big Cooperative Rent-payers' Society, with their huge and ultra-modern houses, strongly opposed the garden city idea, saying that the best mode of life is the big apartment house in the city alternating with vacations and week-ends in the country.

Professor E. G. Asplund said that the planning of the city and of the house must start from the primary "cell," the room, but warned against making this cell a prison cell by too much standardization or by too stringent building systems that will finally not leave any space for the individual, whose comfort and home feeling must go ahead of any rationalization. Human beings, he said, must not be changed into military-drilled Tiller girls and so-called functionalism must acquire more psychology and human feeling.

Better Housing Conditions

The St. Pancras House Improvement Society, Ltd., the annual meeting of which was held last month, has succeeded in showing how it is possible by voluntary means to improve housing conditions. The Society has a general fund of over £178,000, much of which has been spent upon erecting blocks of flats in the drab district near Euston Station. The Society's architect is Mr. I. B. M. Hamilton, A.R.I.B.A.

During the last twelve months two new blocks of flats have been opened, providing for 66 familes, and including four one-roomed flats for old people. A contract for two blocks of flats to be built during the next 18 months has been signed.

Of special interest is the attention given to æsthetic details. Coloured bas-reliefs are set in the centre window-arches of each elevation of St. Christopher's Flats. On the top of the posts in the circular drying ground in the courtyards are four-and-twenty blackbirds. A fried fish-shop has been demolished and its place has been taken by a garden extension with a graceful statue of the Virgin and Child. Full use is being made in the flats of the generous gift of window-boxes.

Announcement

Messrs. Ivor F. B. Richards, F. W. Harper and H. A. Bull have commenced practice at 14 St. Andrew's Crescent, Cardiff. They would be pleased to receive manufacturers' catalogues, etc.

In the letterpress beneath the photograph of Mr. Walter Goodesmith, published in our last issue, on the occasion of his being awarded the Portland House Travelling Scholarship for 1932, he was inadvertently stated to be the Chairman of the Atelier of London University. This was a printers' error: the caption should have read, ". . . Chairman of the Members' Committee of the London Atelier."

THE SPECIFICATION WRITER: LIGHT AND HEAT EFFICIENCY IN BUILDINGS

FURTHER extracts are given this week from the Report of the Building Research Board for the year 1931, from which a summary, " Materials Under Test," appeared in the issue for November 2 last. The following are taken from the section headed " Efficiency of Buildings from the Standpoint of the User," which, after all, is the standard by which architects' creations are judged by the majority of people. Part of this section deals with a subject also dealt with in the R.I.B.A. report on the " Orientation of Buildings."

Sun-planning by Means of Models

In the climate of Great Britain it is generally considered desirable that buildings in which human beings dwell and work should receive as much direct sunlight as possible and that sunlight should also flood streets and open spaces. Planning for sunlight has not, however, received the attention which it deserves, and has usually necessitated collaboration with a specialist familiar with the calculation of the direction of sunshine at different hours of the day and seasons of the year for the latitude considered.

In order to facilitate sun planning, a simple apparatus has been devised which shows the direction of sunshine at any hour on any day of the year for all latitudes. This apparatus, which may be termed a heliodon, enables the architect to demonstrate to his clients by means of a model how sunlight has been taken into account in the planning of a proposed building.

The apparatus comprises a board representing the surface of the earth at the site, and a lamp, some distance from the board, representing the sun. The lamp can be moved vertically to positions corresponding to the various days of the year, and the board is mounted on a vertical axis, the inclination to the axis being equal to the latitude. As the board is rotated, a pointer indicates the corresponding hour of the day upon a horizontal scale.

With this apparatus, not only is the study of the insolation of the walls of a building much simplified, but it is possible also to determine with a simple model the manner in which the sun shines into the interior of a room. Furthermore, by means of suitable models, it is possible to study certain problems of town planning. The apparatus is now being manufactured for sale by Messrs. G. Cussons, Ltd., of Manchester.

Two further aspects of " sun planning " are discussed—ultra-violet radiation and the exclusion of the sun's heat from rooms in which it may be undesirable.

With regard to the first the report says :—

During recent years the attention of the public has been increasingly directed to the importance, from a health standpoint, of the ultra-violet radiation which is present in sunshine.

Ordinary window-glass is entirely opaque to this radiation, but special glasses designed to transmit it are now on the market. It is pertinent, therefore, to consider what intensities of therapeutic radiation the special glasses can make available in a room.

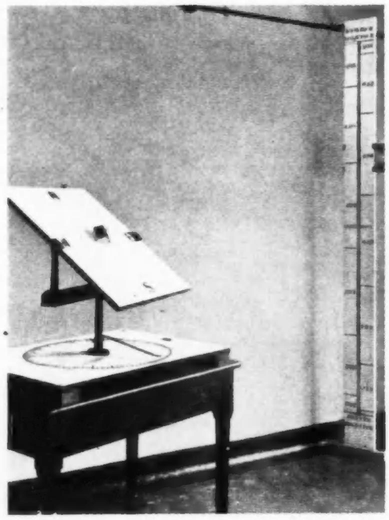


Figure one. The heliodon, with a small house model on the observation board.

With simple fenestrations and with certain assumptions the problem can be attacked mathematically, but in the more complex problems the computation of the radiation received from the sky is virtually precluded by the amount of labour involved. For the investigation of such problems an experimental method has been developed.

A small model of the room in question is fitted with a sheet of sensitized paper in the plane over which the distribution of therapeutic radiation is required, and is placed outside on a day when the sky is uniformly overcast. The photographic record obtained shows the distribution of actinic radiation over the particular plane, and it is possible to derive from the contours of actinic radiation the corresponding contours of therapeutic radiation.

The reflectivities of the internal surfaces of the model for actinic radiation should be the same as those of the actual room for therapeutic radiation. Luckiesh has recently measured the ultra-violet reflectivities of a number of common materials, but information is not yet available in sufficient detail to enable this factor to be taken into account. It is advisable, therefore, to paint the interior of the model black, thus reproducing the condition which has perforce to be assumed in the calculation of radiation intensities. Owing to the neglect of reflected radiation the present estimates of ultra-violet intensities must be somewhat lower than obtain in actual rooms. The experimental method has been tested in the simple case for which calculations have been made and yields results in close agreement with the computed figures.

For the second investigation various methods of treating a clear sheet of glass so as to exclude the solar heat were tried, and the table below shows the results. The "relative temperature excess " refers to the excess of the maximum inside temperature over maximum shade temperature, expressed as a ratio of the corresponding excess beneath the clear glass.

Treatment of specimen.	Relative temperature excess.
Clear	1.00
One coat whitewash below	0.61
White calico below ..	0.57
One coat green distemper above	0.55
One coat whitewash above	0.49
Two coats whitewash below	0.46
White calico above ..	0.40
Two coats whitewash above	0.28

The white calico blinds were placed at a distance of about 1 in. above or below the glass, and, in the former case, free air circulation between calico and glass was permitted.

The efficacy of whitewash as a surface treatment obviously depends in a large degree on the thickness of the layer. Treatment of the under surface of a glass roof is somewhat less efficient than treatment of the upper surface, but may be preferable in wet and dirty atmospheres.

The Heating of Rooms

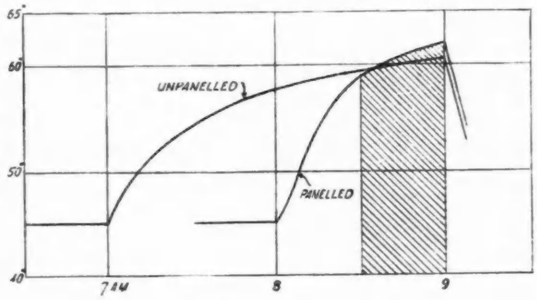
The remainder of this section of the report deals with artificial heating. It is pointed out that with

intermittent heating it is important to reduce the heating-up period to a minimum both for economy and convenience,

and that in this respect some rooms are much more difficult to warm than others. Tests were carried out on a breakfast room, fitted with a gas fire, before and after the walls had been lined with wood panelling.

Without taking the furniture into account, only one-half of the boundary surface of the room was changed by the panelling—the ceiling, window, floor and door were not affected—yet the change in the room is remarkable. The room is now warmer after half-an-hour than it used to be after an hour-and-a-quarter.

Figure two. The effect of panelling on the warming of a room.



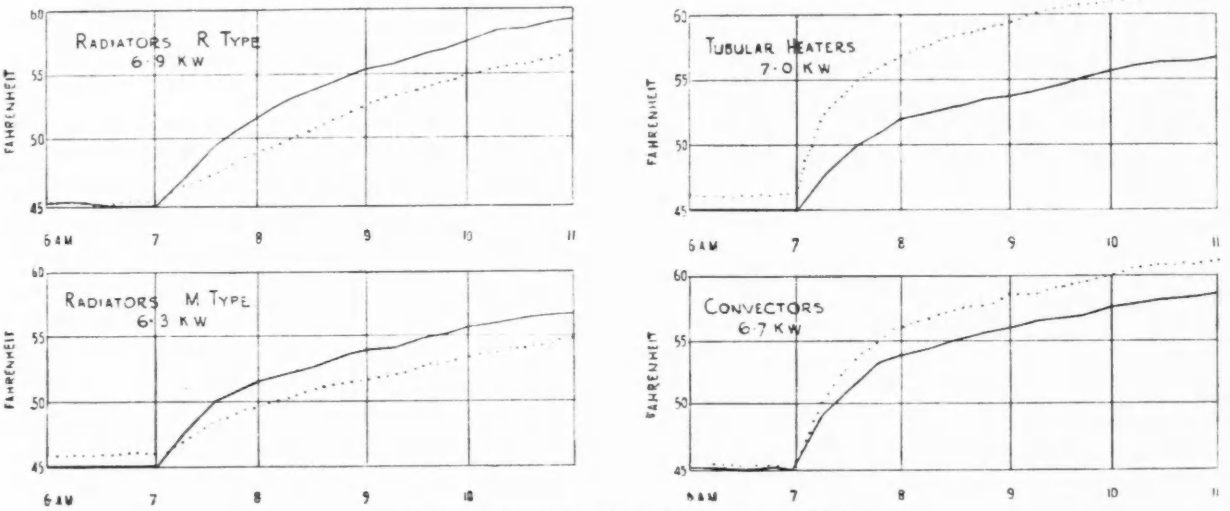


Figure three. Comparison of various systems of heating.

Fig 2 shows records obtained, and is arranged to show the warming for one half-hour occupation. From the practical point of view the important fact is not that one hour's heating now suffices instead of two, but that a fire may reasonably be lit half-an-hour before the room is wanted. The room was formerly uncomfortable unless the fire was lit an hour and a half before breakfast. For the most efficient use of intermittent heating the walls of a room should be lined with wood or other insulation of small thermal capacity.

In the report for 1930, experiments were described which showed that the heat requirements of certain rooms warmed, without ventilation, by an installation of ceiling panels, were approximately 14 per cent. greater than with convective heating. It was pointed out that the relative advantage in the two methods of heating is not likely to remain the same with freely-ventilated rooms and is, indeed, likely to be reversed.

It was desired to obtain some experimental evidence on this point. In the experiments which have been carried out, it was not practicable to use the ceiling panels ; consequently recourse was had to the radiant heating installation previously used. With this it had been found that, without ventilation, the heat requirements of the rooms were some 7 per cent. greater than with convective heating.

Observations have now been made with each room ventilated by means of a small wall ventilator, which was left open continually. This resulted in an increase of 16 per cent. in the amount of convective heating required, but made no measurable difference to the cost of the radiant heating.

The heating of schoolrooms by radiant heat was investigated, using actual classrooms for the tests. Observations of the “ equivalent temperature ” were made with an “ eupatheoscope,” with various conditions of heating and ventilation in the room. These terms may need further explanation, since they are part of the terminology of recent advances in the science of heating. It has been found that the temperature of an environment with air and walls at different temperatures is not easily specified. From the point of view of comfort, it is the rate at which heat is lost from the body which seems to be important. The “ effective temperature ” of an environment has, therefore, been provisionally defined as that temperature of a uniform enclosure in which, in still air, a sizable black body at 75 deg. F. would lose heat at the same rate as in the environment. A scale of equivalent temperature is therefore essentially a refinement of the sensation scale. In terms of our sensations we may say “ It is colder now that the sun has gone in.” or “Come round the corner ; it will be warmer out of the wind.” But when we attempt to express “ how much colder,” or “ how much warmer,” it is necessary to have a scale of temperature. Human sensations are affected by diurnal and seasonal acclimatization and are notoriously variable and individual. For accurate work, physiological sensations must be interpreted in terms of physical quantities capable of exact measurement, and in 1929 an instrument was therefore constructed for recording equivalent temperature. This instrument is called an eupatheoscope.

Two types of electric heating panels (these are called radiators in the report) installed at ceiling level are compared with tubular heaters and “ convectors ” (these are what the ordinary person calls “ radiators,” but which heat by convection and not by radiation).

Typical records obtained with ventilated rooms are shown in Fig. 3, in which the “ equivalent temperature ” is shown by a full curve and the air temperature by a dotted curve. Dealing with the comparison between “ R ” type radiators and tubular heaters, it will be seen that before the heat was switched on at seven o'clock the equivalent temperature was three or four degrees lower than the air temperature. This is due to the cooling effect of draughts in a room.

The comparison between “R” type radiators and convectors was done on a calm day, and the equivalent temperature at the start was practically equal to the air temperature. The records show a slight advantage of the radiators over the convectors.

In unventilated rooms there were more striking differences between the air temperature and the equivalent temperatures : when the equivalent temperature was 55 deg. F., the air temperature was 61 deg. F., with the tubular heaters, 57 deg. F., with the convectors, 53 deg. F., with the “ M ” type and 52 deg. F. with the “ R ” type radiators. It is significant that in raising the equivalent temperature 10 deg. F. it was found that one system raised the air temperature 9 deg. F. more than another.

W. E. J. B.

OBITUARY

JOHN MURRAY

We regret to record the death of Mr. John C. T. Murray, F.R.I.B.A., which occurred at his home at Streatham. He was born in Glasgow seventy-one years ago, and was educated in that town. At an early age he became associated with Sir Rowand Anderson.

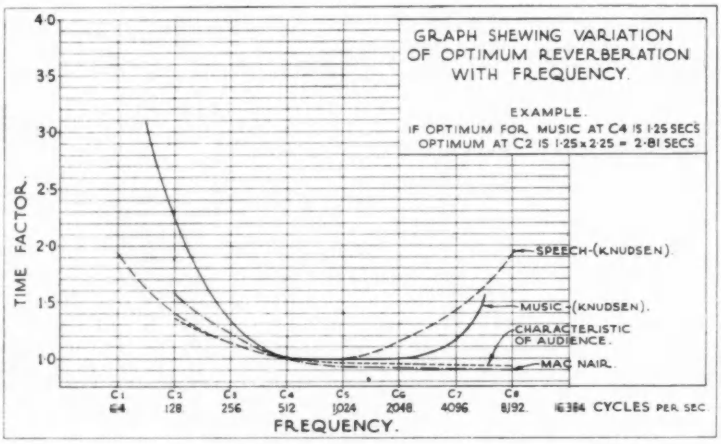
Mr. Murray specialized in ecclesiastical architecture ; churches erected from his designs are to be found in London, Ireland and abroad. He was commissioned by the Government for several important undertakings, including the military hospitals at Gibraltar and Chatham. He also designed the recently-completed Straits Chinese Presbyterian Church, Singapore.

J. E. WRATHMELL

We regret to record the death, in his fifty-second year, of Mr. John Ernest Wrathmell, L.R.I.B.A. of Stockport.

He was a partner in the firm of Wrathmell and Blackshaw, Stockport, who designed many local buildings, and a Fellow of the Manchester Society of Architects.

LITERATURE



ARCHITECTURAL ACOUSTICS

Architectural Acoustics. By Vern. O. Knudsen, Ph. D. London: Chapman and Hall. New York: John Wiley & Sons. Price 40s. net.

THIS work serves as a complete and up-to-date treatise on the behaviour of sound in buildings and lays special emphasis on the recent developments in theory and experiment.

The author, a recognized authority on the subject, presents, in a well-ordered sequence, the theoretical and mathematical steps leading up to the application of the principles underlying practical problems.

In the first part of the book, dealing with physical and physiological acoustics, he presents to us the elementary facts as examined by the well-known pioneer workers in this field, and does not claim to have included new and original material.

In the second section, dealing with the basic principles and data affecting the acoustical design of buildings, Mr. Knudsen includes the main substance and the novel features of the book, whilst in the third he deals with the applications to building design.

The various methods for controlling the reverberation in rooms are fully discussed, but as to the determination of the optimum time, the author makes a very important contribution.

Hitherto "optimum" was set down by Sabine, Watson, Lifshitz and others as the consensus of discerning opinion upon the acoustical condition of well-known auditoria; indeed, the ear being the ultimate criterion in such matters, no other course appears to have been open to the early workers in this field.

By a very careful study of the effects of reverberation upon the hearing of speech and music in auditoria, Dr. Knudsen sets down recommended optima for all classes of buildings, including in this book very valuable curves showing separately the periods desirable in the following:

Churches: Discriminating between Christian Science churches, Protestant and Jewish churches, and cathedrals and Roman Catholic churches.

Cinemas: Showing recommended times for 128 and 2,048 cycles—which periods are, by the way, shorter than usually adopted.

Legitimate theatres and sound studios: Discriminating for frequency; and school auditoria and speech rooms at 512 cycles.

Dealing with the vexed question of the desirable reverberation characteristic, the author asks the following questions:

1. Should the reverberation time be the same for all frequencies?
2. Should the reverberation characteristic be what we are accustomed to—a composite make-up of the absorption characteristics of the room?
3. Should it be based upon the frequency distribution of sound energy—so that all components will die away to inaudibility in the same length of time?
4. Should it be based upon the physiological relation between loudness, intensity and frequency, so that the rate of decay of loudness will be the same for all frequencies as proposed by Macnair? Or:—
5. Should the reverberation time increase as the frequency increases, as suggested by Wente?

Dr. Knudsen rules out the first and fifth criteria on the ground that their adoption would over-emphasize many of the overtones, and points out that the other three criteria lead to conclusions not widely divergent.

He recommends reverberation characteristics based upon the *equal time of decay* for all frequency components in speech and average music rather than upon the analytical functions of the ear which would seem to call for a characteristic ensuring *equal rates of change of loudness* for different pitch components.

His curves are re-plotted herewith on a common datum and with *unity reverberation* at 512 cycles. The ordinates thus become time factors, so that, knowing the optimum at 512 cycles, that at any other frequency can be calculated by multiplying this by the appropriate time factor read off from the graph.

For comparison, Macnair's characteristic, based upon equal rates of change of loudness, is also shown, together with the characteristic corresponding to the average audience.

The absorption of the audience in an auditorium has the greatest influence on the characteristics, and this curve can therefore be taken as approximately representing the conditions referred to in criterion No. 2 above.

The book also contains useful tables of absorption co-efficients of American acoustical materials; a table of physical properties of absorptive materials; and extensive tabulated data on sound transmission tests on different types of wall, floor and ceiling constructions.

The author has applied a reasoned "correction" to the data published by various testing authorities, and gives therefrom what he calls the probable average value of transmission loss in d.b., a figure which renders the results from these different laboratories directly comparable.

SOCIETIES AND INSTITUTIONS

LEICESTER ARCHITECTS' ANNUAL DINNER

The Lord Mayor of Leicester (Councillor A. Hawkes), speaking at the annual dinner of the Leicester and Leicestershire Society of Architects, held on January 27, expressed himself strongly opposed to the withdrawal or cancellation of Government housing subsidies. He said: *The "block system" of housing schemes is no good. Immediately the subsidies come to an end, ratepayers will see what they have been let in for, and there is bound to be a very substantial increase in local rates.*

What do we see today? We see, owing to the tremendous cost of road-making, builders erecting houses along main road frontages without a proper sewerage system, but sooner or later that will have to be done by the local authority and will be a very, very expensive item.

Twelve houses to the acre is making it a very difficult proposition for the private builder and contractor to speculate like he used to in the old days.

I am fully assured, in my own mind, that if the Government will only handle housing now it will go on even better than at the present time.

Other speakers included Sir Raymond Unwin, P.R.I.B.A., George Nott, F.R.I.B.A. (President of the Society); E. C. Bewlay, F.R.I.B.A.; J. B. Surman, F.R.I.B.A.; Walter Brand; and T. Trevor Sawday.

SEASIDE ARCHITECTURE

The Architecture of Brighton and Hove. By H. S. Goodhart-Rendel, F.R.I.B.A. At a recent meeting of the Brighton Chapter of the South-Eastern Society of Architects.

I yield to nobody in my admiration for good architecture of the Regency period. I admit that the Royal Crescent, with its sparkling black tiles, can look gay and inviting; and that so also can a few of the stucco houses coeval with it (always provided the stucco be newly painted). Regency Square, for example, must have been enchanting when fresh from its builder's hands, and even now, with all its deformation, is a smiling, attractive place. I think, nevertheless, that the general aspect of seaside terrace houses in England, even when as good an architect as Hardwick or Decimus Burton has been employed, is depressing. Rather gaunt streets appear to have come down from London, with a few extra bow windows and balconies to wear on their holiday, but without any great hopes of the weather.

THE ARCHITECTURE OF DISPLAY

The Architecture of Display. By. H. Hinchliffe Davies, A.R.I.B.A. Liverpool Display Association. January 31.

Large windows are unmanagable from the display man's point of view. They are difficult to dress effectively, and from the customer's point of view the eye wanders all around the window because it is too large for the eye to take it all in simultaneously. The background should have a minimum of decoration in order to avoid competing with the merchandise; limed oak or wall board painted and stippled to the desired colour are two of the best substances to use.

The important thing is to give the display man the utmost freedom. There should be no shelves, steps or any permanent fixtures to limit that freedom. Lighting is a very material factor; there should be plenty of it and, most important of all, it must be concealed.

A DISGRACE TO ENGLAND

Professor C. H. Reilly, F.R.I.B.A., in distributing awards, on January 30, to students in the Building Trades Department of the Liverpool Central Technical School, said:

In comparison to Continental cities, Liverpool, as an orderly, efficient town, is a disgrace to England, second only to Manchester. It is not that we have not the ability. Mr. Keay, the Director of Housing, can build the finest workmen's houses in the country, yet his work is surrounded and overwhelmed by the vulgar little villas put up by the hundred as speculations. He can design fine blocks of flats, yet he is not given a hundredth of the chances that poverty-stricken Vienna has given its architects. Instead of pulling down whole areas and rebuilding them, so making possible gardens, swimming pools and all sorts of fine public things as well as a splendid layout of the whole, we put up a block here and a block there unrelated to one another, and even these are ceasing at a time when half the building trade is out of work. One would have imagined that this time of unemployment was the ideal time to rebuild our towns and make them clean and efficient instruments both for work and for life.

The professional builder who organizes a job should be paid, like the architect, a definite percentage. Good as we are as individual designers and craftsmen, the present system makes neither for good architecture nor good craftsmanship, neither for a fine town nor for happy and contented workmen.

SOUTH WALES ARCHITECTS' MEETING

At the invitation of the Chairman (Mr. Percy Thomas, F.R.I.B.A.) and the Executive Committee of the South Wales Institute of Architects (Central Branch), a tea and discussion meeting was held at Cardiff on January 24.

The subjects dealt with were: a: "Is early specialization in some particular branch advisable for the young architect?" and b: "Does the R.I.B.A. tend to safeguard the interests of Architecture as a Profession rather than as an Art?"

With regard to the first subject, the general consensus of opinion seemed to be against the idea of specialization, while in the case of the second subject some of those who were present and were most familiar with the activities of the R.I.B.A. were able to give some useful information as to the work done by the R.I.B.A. not only in safeguarding the interests of the Profession but also in furthering the art of architecture.

THE VALUE OF ADVERTISING

The Rt. Hon. Viscount Monck, speaking at the fourteenth annual dinner of the Drawing Office Materials and Manufacturers' Association, held at the Hotel Metropole, London, on January 25, stressed the importance of advertising in technical journals. "An advertisement," he said, "is always working; even if our goods are really good we must advertise in our trade journals and tell our customers by this means."

TRADE NOTES

Three-coat brush-painting within a period of eight hours is the claim advanced for Novax. The simple statement requires amplification for a full realisation of its possibilities. Novax does not contain cellulose; on the contrary, it is a linseed oil paint. Neither is its quick-drying quality due to a large admixture of driers—an expedient that every experienced decorator knows to be fraught with dangers of its own. The secret is the fruit of patient research on the part of chemists. Briefly, the linseed oil used as the vehicle in Novax has been partially oxidised beforehand, so that the period occupied by the paint-film, after application, in absorbing oxygen from the atmosphere, and so setting hard, is correspondingly curtailed. It is otherwise a normally compounded paint.

The new thirty-one story stone-faced R.K.O. office building in the Rockefeller Centre, New York, the new entertainment and shopping district covering six square blocks from Fifth to Sixth Avenues and from 48th to 51st Streets, which is rapidly approaching its final form. The rustic buff and variegated limestone in the R.K.O. building is shot-sawn, giving it a ripple effect like waves.

Novax is available in thirty-six colours, in undercoatings and glossy finish. Two grades of undercoating are prepared: one for spraying, the other for brushing. In brushing by hand, successive coats can be safely applied at four-hour intervals, and such is said to be the covering power of Novax that two-coat work will, in normal circumstances, be found perfectly adequate. If spraying is employed, the period of application is considerably reduced, an hour's interval between coats being suggested as ample. Novax is thinned, in the ordinary way, with turpentine; linseed oil must not be used.

It is perfectly obvious that, as the number and variety of contracts increase wherein speed in decorating is the dominating requirement, a genuine brushing paint capable of such speedy application will be of high value, provided its appearance and lasting powers can be assured. Needless to say the Walpamur Co. (Walpamur House, 35-6, Rathbone Place, Oxford Street, W.1), the manufacturers, have not placed it on the market without exhaustive laboratory and practical tests. They will be glad to give information to all interested enquirers.

◆

The following contracts have been secured by Messrs. W. H. Gaze and Sons, Ltd. (the architects' names are given in brackets): Synagogue House, Seymour Place, W.1 (Mewès and Davis); new premises, 22-26 Osnaburgh Street, N.W. (George Vernon); United Dairies, Esher (F. T. Dear); new ward block, Lewisham Hospital (L.C.C. Architect's Department); shops, Holland Estate, Stepney (L.C.C. Architect's Department); new premises, Chitty Street, W.1 (William Clark); Grand Theatre, Hanwell (F. C. Mitchell).

◆

Messrs. J. H. Sankey and Son, Ltd., of Canning Town, E.16, have just issued a booklet illustrating and describing the Holbric Hollow Building Block, a new method of construction for panel walls, manufactured to meet the revised L.C.C. Code of Practice. Among the many features claimed by the firm for this new form of wall construction, an illustration of which is reproduced on this page, are the following:—1: A saving of approximately 10 per cent. over the cost of ordinary jointed brickwork. 2: The saving in weight between the Holbric Block and ordinary brick is approximately 50 per cent. 3: Great economy on wall-carrying steelwork—from 30 per cent. to 45 per cent. 4: The ease of laying, and the fact that each block represents the equivalent of six bricks, results in rapid construction and reduced jointing. 5: Improved insulation against damp, heat and sound, owing to the multi-cellular cavity construction.

The booklet, which is obtainable on application to the firm, also contains an article by Mr. Donovan H. Lee, A.M.I.C.E., entitled "Some Notes on the Holbric System." He writes: "Solid brickwork may be considered to weigh anything from 95 lb. to 130 lb. per cubic foot, according to the type of brick used, a typical weight for purposes of calculation being 120 lb. per cubic foot, which is, I believe, the weight usually taken by district surveyors. A Holbric wall weighs, including allowance for weight of mortar, 57 lb. per cubic foot, or approximately half the weight of brickwork. When used in conjunction with a facing of brickwork for a 14-inch exterior wall, the saving in weight *per lineal foot* for a story height of 12 feet is 540 lb. or 0.24 tons. This saving in weight has, usually, a proportionately greater effect on the stanchions of a steel-frame building, where there is eccentric loading, as the multiplication by the eccentricity factor increases the economy of the lighter construction. The small variation in radius of gyration of stanchions in general use keeps them to approximately the same efficiency per ton of load carried. This generalization, while not applicable to unusual circumstances, is sufficient to lead to the inference that if a saving can be made of one-third the load on a stanchion, its size, weight and therefore cost, will each in turn be reduced by about one-third. This is not applicable to beams, the cost of which, for equal spans, does not vary in proportion to the load carried, but even in this case a noticeable saving can be shown.

"It can be accepted that the Holbric construction shows distinct economies in structural steelwork and in foundation concrete and excavation. It allows of shallower beams and smaller stanchions. At the same time it improves the thermal insulation and also the damp-resisting properties of exterior walls when they are backed with these blocks."

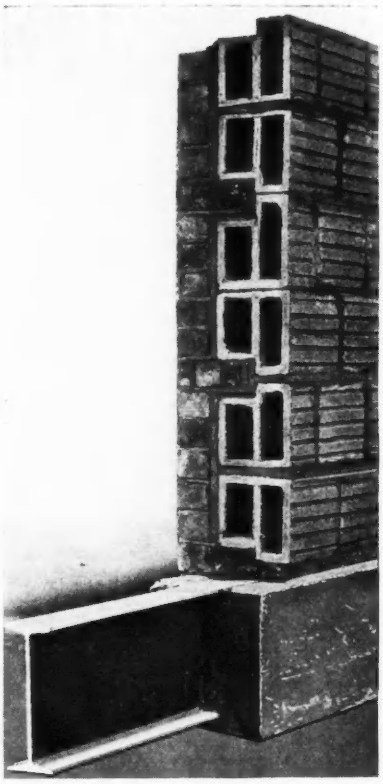
THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors and some of the subcontractors for the buildings illustrated in this issue:

Housing Scheme at Byfleet, Surrey (pages 205-206). General contractors, Childs and Shee. Sub-contractors: T. Faldo & Co., Ltd., asphalt; W. T. Baker, plumbing; W. Thompson, plaster.

New County Offices, Warwick (page 207). General contractor, Edgar Crowder. Sub-contractors: Chas. Wade & Co., Ltd., constructional steelwork; Jerram & Co., Ltd., heating and domestic hot water supply; The Midland Electric Light and Power Co., electric lighting and power installation; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; Reliance Telephone Co., Ltd., internal automatic telephone installation; Waygood-Otis, Ltd., electric passenger lift; Comyn Ching & Co., Ltd., iron entrance gates, staircase balustrades, lift entrance and door furniture, etc.; Crittall Manufacturing Co., Ltd., metal windows; The Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt roofing, etc.; Adamsez, Ltd., sanitary fittings; Croft Granite Co., reconstructed stone facings and cast stone staircases; Wormells, Ltd., slating to roofs; Whitfields Safe and Door Co., Ltd., fire-resisting strong room doors and ventilators; Carter & Co., Ltd., internal wall tiling; Marbello and Durus, Ltd., Pavino Flooring Co., Ltd. and Berrite, Ltd., terrazzo flooring and wall dadoes; W. S. Hodkinson & Co., Ltd., linoleum floor coverings; John Elbo, cork parquetry flooring; Osler and Faraday, Ltd., electric light fittings; J. F. Blakeborough and Son, fire-fighting equipment; Thomas Ingram, bronze and cream enamel inscription plates; Bideford-on-Avon Brick Co., facing bricks; S. Flavel & Co., Ltd., firegrates; Edgehill Quarries, stone fire surrounds; The Improved Wood Pavement Co., Ltd., roadways; Tarmac, Ltd., Vinculum cast stone slabs for paving paths and footways; Kerner-Greenwood & Co., Ltd., Pudlo waterproofing for storage tank; Shapland and Petter, Ltd., internal furnishings and fittings; Waring and Gillow, Ltd. and Osda, Ltd., oak tables, chairs, bookcases, and general fittings; Harris and Sheldon, Ltd., steel furniture and fittings throughout; P. H. Woodward & Co., Ltd. and W. H. Hodkinson & Co., Ltd., curtains and hangings, etc.; "Old Delabole" grey-green slates, Setchell and Sons; internal walls and ceilings treated with "Walpamur"; stained glass memorial windows, Bromsgrove Guild Ltd.

Showroom and Offices, South Molton Street, W. (pages 209-211). General contractors, Blay Bros. Sub-contractors: Bovis, Ltd., plumbing, fire doors, sanitary work, lavatories, and front door; James Latham, Ltd., veneering; Abbey Heating Co., heating; A. Goslett & Co., Ltd., and John Bolding & Co., Ltd., sanitary fittings; W. G. Hodgson & Co. and Electronos, Ltd., electrical work (showcase lighting); Yannedis & Co., ironmongery; A. Jones Lock Co., Ltd., radiator grilles; Besway Manufacturing Co., trolleys; Camden Tile Co., Ltd., composition floors; Gas Light and Coke Co., gas fitting; E. Pollard & Co., Ltd., lettering (front door); Callon, painted decoration in showroom and private office; backs of showcases (Ibus board), Pharaohs Wallboard, Ltd.; fittings to showcases, Tonks, Ltd.



A 13-in. brick-faced Holbric wall. This new form of wall construction, described in a note on this page, employs hollow terra-cotta blocks of special shape which interlock, and, it is claimed, permit, in exterior walls, a secure form of bonding with the outer skin of facing bricks or masonry.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the BRENTFORD AND CHISWICK Corporation: Alterations, Coronet cinema, High Street, for Mr. F. A. Sergeant; three houses, Grove Park Road, for Kinnaird Estate Co.; shops, Sutton Lane, for Mr. F. Secret; factory, Great West Road, for Mr. H. C. Hollis; alterations, "Steam Packet" public-house, Strand on the Green, for Royal Brewery.

The COULSDON U.D.C. has agreed to a scheme, submitted by Mr. C. H. Ridge, for the development of a shopping area in Addington Road, Sanderstead.

The London Electric Railway Co. is to arrange for a subway to form part of the new station which is about to be constructed underneath the Cockfosters Road, ENFIELD.

The ENFIELD U.D.C. has obtained sanction for a loan of £33,340 for the erection of an elementary school on the Suffolks estate.

Plans passed by the ENFIELD U.D.C.: 15 houses, Grange Park, for Messrs. Swannell and Sly; two houses, Carterhatch Lane, for Mr. R. F. Wyman; extensions, Enfield Rolling Mills, Millmarsh Lane, for Messrs. Griggs and Sons, Ltd.; extensions, Baptist Church, Totteridge Road, for Mr. G. P. Walker; extensions, Greyhound Works, Lincoln Road, for Messrs. J. Hamilton and Son.

Homemakers, Ltd., are to erect 170 houses on the Sunnyside estate, ENFIELD.

Plans passed by the FINCHLEY U.D.C.: Four flats, East End Road, for Mr. H. C. Brown; 12 shops and flats, Falloden Way, for Greater London Properties, Ltd.; four houses, Widecombe Way, for Mr. G. S. Smith; four houses, Tillingbourne Gardens, for Messrs. Bolton and Norris; two roads, Hampstead Garden Suburb, for Copartnership Tenants, Ltd.; house, Wentworth Avenue, for Messrs. F. W. Bristow and Son, Ltd.; six flats, Litchfield Way, for Mr. A. Mart.

Plans passed by the FRIERN BARNET U.D.C.: Flats, junction of Fernwood Crescent and Oakleigh Road, for Mr. J. Hutchinson; house, Friern Mount Drive, for Messrs. C. F. Day, Ltd.; two houses, Friern Barnet Lane, for Mr. F. Riley; house, Church Way, for Mr. H. A. Nash; nine houses, Colney Hatch Lane, for Messrs. Lord and Mellodew, Ltd.; 31 houses, Bawtry Road, for Bateman Building Co.

The FULHAM B.C. recommends a scheme of extensions at the town hall, prepared by Mr. Walter Cave, at an estimated cost of £19,776.

Messrs. W. Seymour & Co. have purchased land from the L.C.C. in Tunnel Avenue, GREENWICH, for the erection of blocks of houses.

Plans passed by the HORNSEY Corporation: Lay-out for road and buildings, South Close, Southwood Hall estate, for Mr. H. H. Holmes, 53 High Road, Wood Green, for Messrs. W. and F. Yeowell; four houses, Stormont Road, for Mr. H. A. Smith; three houses, Twyford Avenue, for Mr. W. B. Collins.

The Blessed Sacrament Roman Catholic Church, Copenhagen Street, ISLINGTON, is to erect a school for 450 pupils in Edward Square.

The Surrey Education Committee is obtaining a site at KENLEY for the erection of an elementary school.

The KENSINGTON B.C. is to clear the Lancaster Road and Talbot Grove areas and erect dwellings, at a cost of £19,000.

Plans passed by the LEWISHAM B.C.: Two houses, Upwood Road, for Messrs. T. Allen (Lee), Ltd.; church hall, Bellingham Green, for Mr. P. W. Meredith; hall, Allerford Road, for Messrs. A. J. Glock, Ltd.; alterations, "General Napier" public-house, Bovill Road, for Mr. F. M. Kirby; six houses, Como Road, for Messrs. M. Holmes & Co.

Plans passed at PURLEY: Two houses, Lower Barn Road, for Mr. E. Smith; eight houses, Brighton Road, for Messrs. J. W. Hall and Son, Ltd.; six houses, Burwood Avenue, for Mr. E. B. Hayward; 10 houses, Whitecliffe Road, for Mr. F. W. Thomas.

The STOKE NEWINGTON B.C. is to acquire land in Lordship Terrace for the erection of 56 flats, at a cost of about £32,000.

The L.C.C. is to erect 29 three-roomed houses of simplified type on the White Hart estate, TOTTENHAM, at a cost of £11,420.

The WOOLWICH B.C. is to erect further houses on the Middle Park Estate, at a cost of £33,628.

SOUTHERN COUNTIES

Plans passed at GRAVESEND: Additions at works, Clifton Marine Parade, for the Imperial Paper Mills, Ltd.; extension of Trosley Avenue to St. Thomas's Road, for Mr. T. Bennett; extension of Coombe Road, for Mr. L. F. L. Bridgland, on behalf of The Gravesend Land Co., Ltd.; two houses (amended plan), Wrotham Road, for Mr. P. H. Martin.

Plans passed at GUILDFORD: Six houses, New Road, Woodbridge Estate, for Mr. H. Ashenden; two houses, New Road, Ardmore Estate, for Mr. W. Hoptroff; cellulose shop, High Street, for Messrs. Crow Bros.; alterations, The Angel Hotel, for The Surrey Public House Trust Co., Ltd.; new road, Shepherd's Farm Estate, for Messrs. Chas. Osenton & Co.; four houses, William Road, for Mr. G. C. Clark.

Plans passed at HASTINGS: Restaurant, Hastings Pier, for Messrs. Callow and Callow; alterations, Shah Hotel, Mount Pleasant Road, for Mr. Bedford; two houses, Hoad's Wood Road, St. Helen's, for Messrs. Henry Ward, Son and Wray; eight houses, St. Helen's Road, for Mr. J. D. Hicks; two houses, Fairlight Avenue, for Mr. F. W. Southwell.

Messrs. Goodwin and Russell, Ltd., are to develop land bounded by Sea Street, Cobblers Bridge Road and Greenhill Bridge, HERNE BAY. About 100 houses will be erected at an average cost of approximately £450 each.

Plans passed by the OXFORD Corporation: Ten garages, Ferry Lane, for Mr. W. J. Jarvis; two houses, Iffley Road, for Messrs. Pye Bros.; 12 flats, Observatory Street, for St. John's Baptist College trustees; two houses, Quarry Road, Headington, for Messrs. F. and E. J. Watson; house, Mill Lane, for Donnington Hospital trustees; house, Talbot Road, for North Oxford Estates Co., Ltd.; two houses, Bowness Avenue, and house, Ambleside Drive, for Mr. A. C. Carter.

SOUTH-WESTERN COUNTIES

The PORTLAND U.D.C. has obtained sanction from the Ministry of Health for the erection of 30 houses in Weston Street.

MIDLAND COUNTIES

Plans passed at KIDDERMINSTER: Alterations and additions, Leswell Lane, for St. George's Parochial Church Council; two houses, Highfield Road, for Messrs. F. Hughes and Sons; additions, Holy Innocents' Church, Stourport Road, for St. John's Parochial Church Council; bungalow, Sutton Park Road, for Mr. A. W. Ryder; additions to premises, Castle Road and Exchange Street, for Messrs. Brintons, Ltd.; two houses, Highfield Road, for Messrs. W. T. and J. Spilsbury; alterations to property, George Street, for Mr. T. Webster.

The SMETHWICK Corporation recommends proceeding with the erection of 468 houses to complete the development of the Warley estate, at a cost of £138,500.

The SMETHWICK Education Committee recommends the following schemes: Provision of practical instruction accommodation at schools, £4,400; education department workshops, £650; school cloakroom improvements, £3,000; school w.c. improvements, £2,500, and school lavatory improvements, £2,500.

The SMETHWICK Corporation recommends the following schemes: Reconstruction of unclassified roads, £2,177; widening of Stony Lane, £2,200; Holly Lane hospital extension, £7,000; erection of new library and clinic at Windmill Lane, £8,000; alteration of fire station doors, £500; provision of shelter and dressing-rooms at West Smethwick Park, £750; provision of hard tennis courts in Harry Mitchell Park, £300.

The SUTTON COLDFIELD Corporation is to prepare plans for 168 houses proposed to be erected on the Holland House estate.

Plans passed at SUTTON COLDFIELD: 74 houses (amended plan) off Boldmere Road, for Messrs. Morris, Jacombs & Co.; eight shops, Birmingham Road, for Mr. F. W. Wheeldon; house, Chester Road, for Mr. J. W. Britton; six houses, Chester Road, for Midland Dwellings, Ltd.; seven houses, Clarence Road, for Messrs. Streathers, Ltd.; three houses, Holifast Road, for the Excelda Housing Supplies; eight houses, Kineton Road, for Mr. T. A. Glynn; two houses, Station Road, for Messrs. Tew & Co.; two houses, Whitehouse Common Road, for Mr. L. W. James; 10 houses, Bedford Road, for Mr. Lawson.

NORTHERN COUNTIES

Plans passed by the BLYTH Corporation: 16 flats, Columbia Terrace, for Mr. J. E. Dover; 16 flats, Princess Louise Road, for Mr. H. Bower.

The BLYTH Corporation has granted an application by Lord Ridley for permission to develop land in the vicinity of Wensleydale Terrace, by the erection of houses, at 20 to the acre.

The BLYTH Corporation has approved the lay-out of the South Farm estate and is to seek permission for the erection of 200 houses.

The HULL Corporation has decided to obtain all the land required for the scheme for the provision of a central coach station.

Plans passed by the SHEFFIELD Corporation: Two houses, Hallgate Road, for Mr. T. J. Sanderson; 10 houses, Warminster Road, for Messrs. C. H. Leadbeater and Sons; four houses, Cawthorne Grove, for Mr. W. A. Wright; two houses, Harley Road, for Mr. J. A. Wragg; house and shop, Manor Lane, for Mr. J. H. Starmer; 20 houses, Bawtry Road, for Mr. G. R. Parkin; 10 houses, Skelwith Road, for Mr. J. W. Sandall; six houses, Wood Road, for Mr. P. H. Slater; eight houses, Bishop's Hill, for Mr. G. H. Cottrill; five houses, Derbyshire Lane, for Messrs. F. B. Skinner and Sons; eight houses, Embankment Road, for Mr. W. Laver; 44 houses, Longfield Road, for Mr. A. Ramsay; three houses, Pingle Road, for Mr. J. Broadhead; two houses, Whirlow County Road, for Mr. E. Walker; six houses, Gillott Road, for Mr. H. Haywood; 190 houses, Woodthorpe estate, for Corporation Estates Committee; two houses, Chesterfield Road, for Mr. C. H. Beardow; two houses, Hollinsend Road, for Mr. H. Fidler; two houses, Crowland Crescent, for Messrs. T. Wilkinson and Sons, Ltd.; two houses, Hands Lane, for Messrs. T. W. and A. E. Larder; 16 houses, Carrfield Road, for Mr. J. Barker; two houses, Butler Road, for Mr. A. Fawcett; house and shop, Cricket Inn Road, for Mr. C. W. Alflat.

The TYNEMOUTH Corporation is to prepare plans for the erection of 96 self-contained houses on land west of Silkey's Lane.

Plans passed by the TYNEMOUTH Corporation: Three houses, Balkwell Lane, for Mr. J. F. Charlton; flats, Morpeth Terrace, for Messrs. G. W. and S. Black; house and shops, Wallsend Road, for Mr. J. R. Charlton; nine houses, Warkworth Terrace, for Mr. J. R. Wallace; alterations, Queensway, for Messrs. H. D. Burton, Ltd.; 22 houses, North Chirton estate, and 17 houses, Lynn Road, for Messrs. F. R. N. Haswell and Son; six houses, Addington Crescent, and two shops and houses, Hawkey's Hill estate, for Mr. W. Moore; 12 houses, Balkwell Lane, for Mr. J. S. Hurrell; 10 houses, Albion Road, for Mr. W. Stockdale; four houses, Lansdowne Terrace, for Mr. B. Sadler; flats, Pineapple estate, for Messrs. F. R. N. Haswell and Son; nine houses, Warkworth Terrace, for Messrs. B. Peel, Ltd.

The WALLSEND Corporation Health Committee recommends the erection of 85 small houses for small families, and 143 ordinary houses for re-housing purposes.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	•1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	•1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A_1	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	•1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	•1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	•1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	•1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	•1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	•1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

• In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
,, green ,,	,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			3½
,, ,, 26 oz. ,, ,, ,,	,,			4½
Arctic glass, white	,,			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,			6½
⅛" Hartley's rough rolled	,,			7
¼" ,, wired cast	,,			10
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†7½	to	‡1 0
,, ,, 2	,,	†10	,,	‡1 3½
,, ,, 3	,,	†1 4½	,,	‡1 10
,, ,, 4	,,	†1 11	,,	‡2 4
,, ,, 6	,,	†2 3	,,	‡2 7½
,, ,, 8	,,	†2 5	,,	‡3 0½
,, ,, 12	,,	†2 10	,,	‡3 3½
,, ,, 20	,,	†3 3½	,,	†3 9
,, ,, 45	,,	†3 6½	,,	‡4 0½
,, ,, 65	,,	†3 11½	,,	‡4 4
,, ,, 90	,,	†4 4	,,	‡4 9
,, ,, 100	,,	†4 6	,,	‡4 11
Vita glass, sheet, n/e 1 ft.	,,			1 0
,, ,, ,, 2	,,			1 3
,, ,, ,, over 2	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2	,,			3 0
,, ,, ,, 5	,,			4 0
,, ,, ,, 7	,,			5 0
,, ,, ,, 15	,,			6 0
,, ,, ,, over 15	,,			7 6
Putty, linseed oil	lb.			3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay add	„		3	0
If in underpinning „	„		5	0
Digging, return, fill and ram „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1½" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	0
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	0

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	0
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	„		10½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

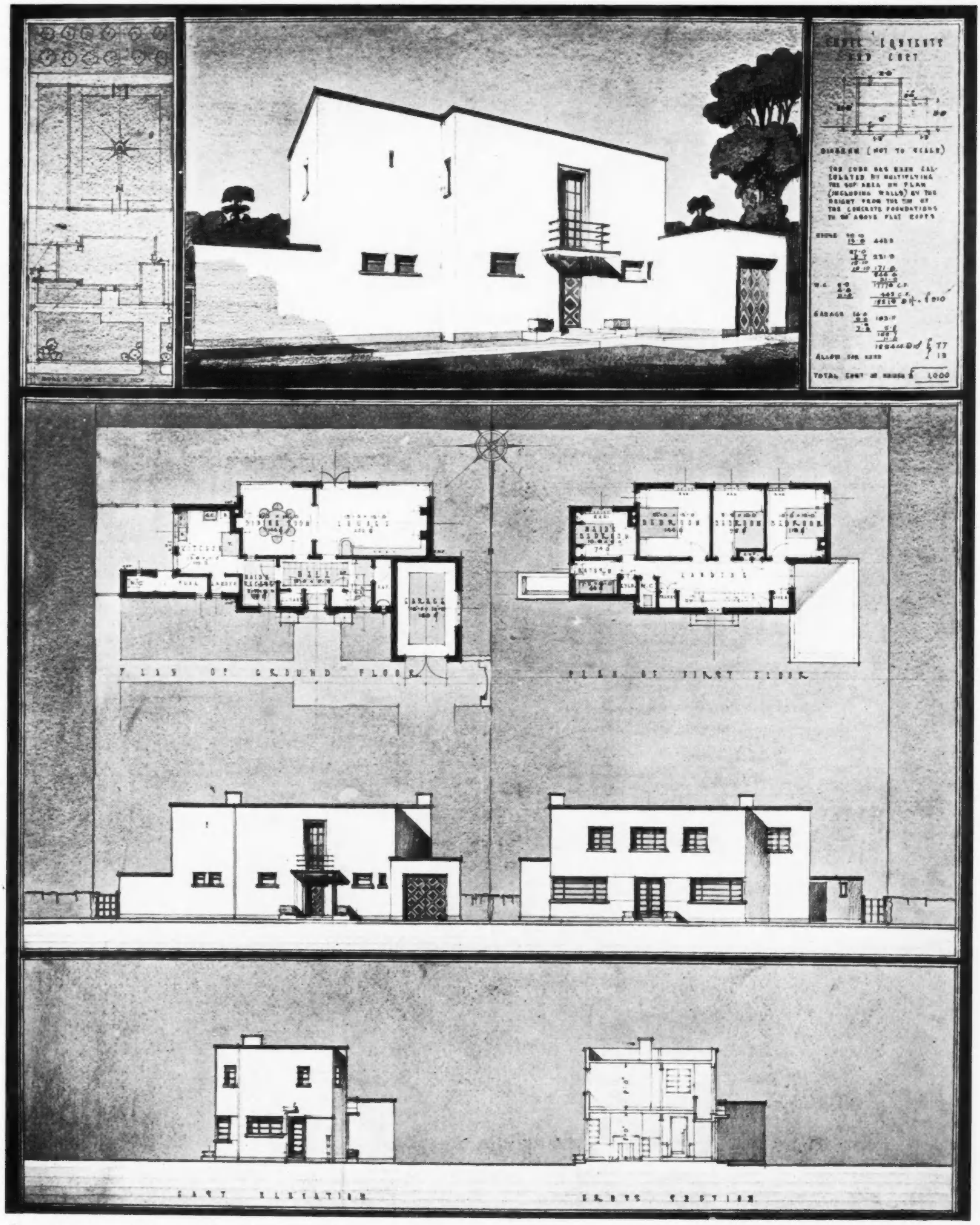
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	0
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	0
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	„	2	9

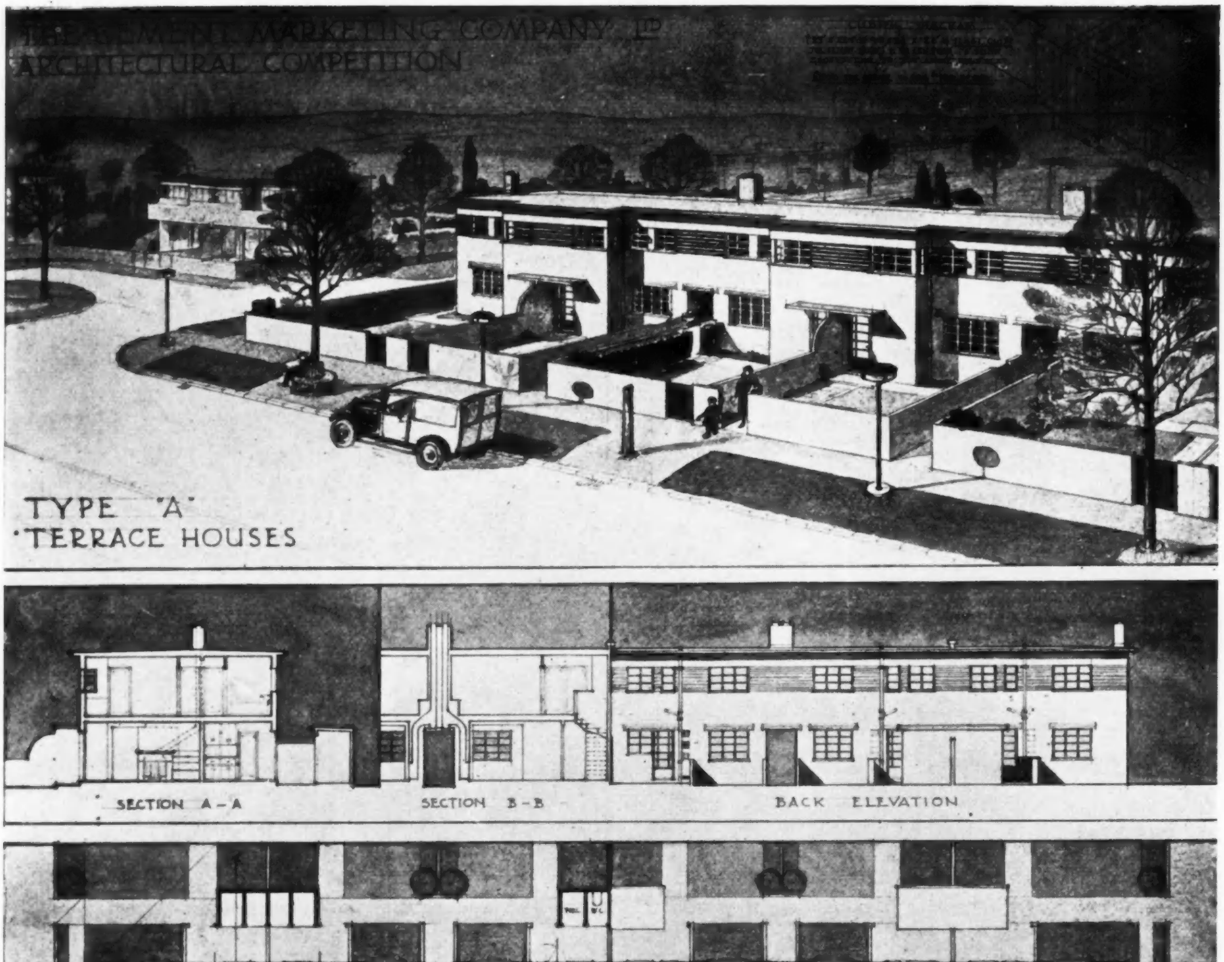
Supplement to THE ARCHITECTS' JOURNAL for February 8, 1933

COMPETITION FOR CEMENT HOUSES

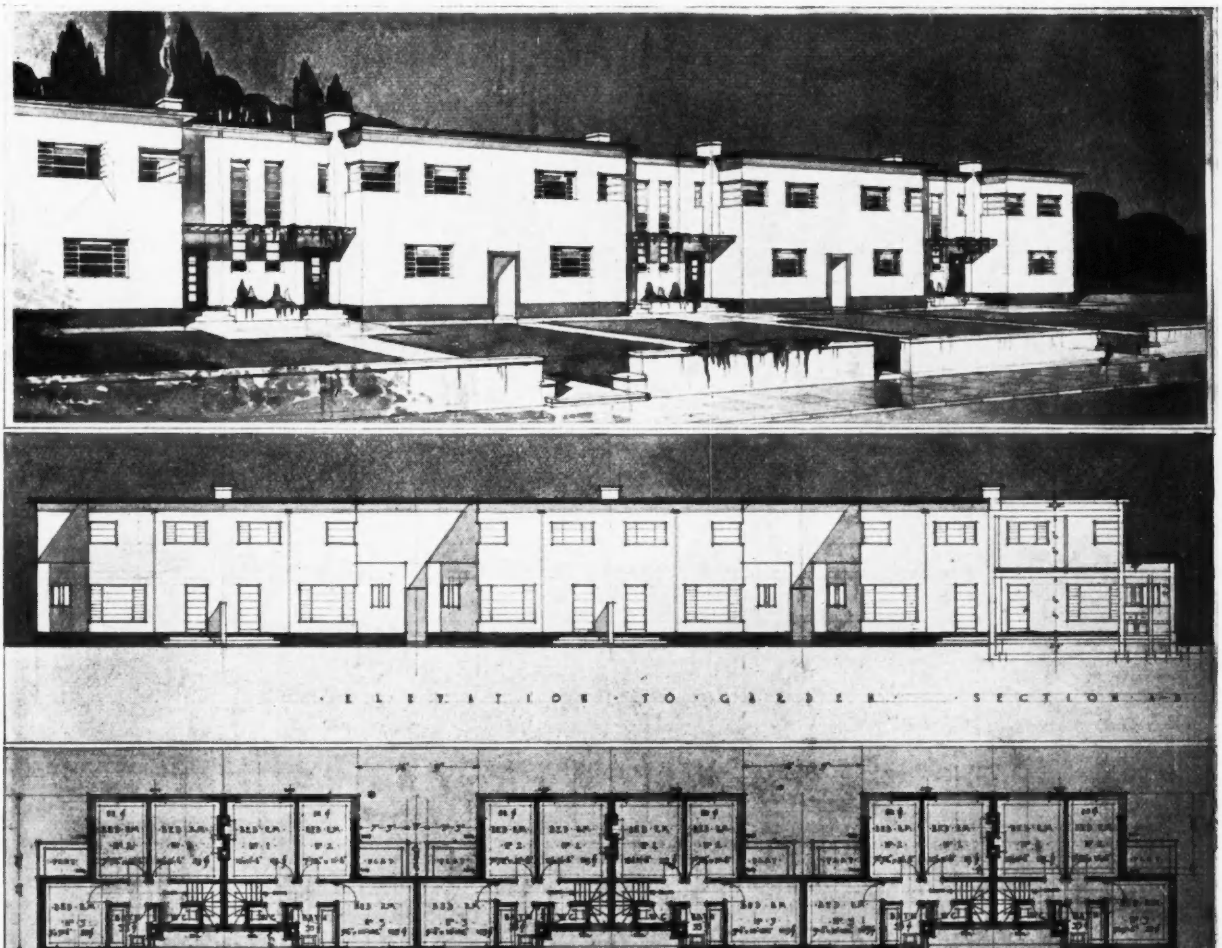
• A SELECTION OF THE PREMIATED DESIGNS •


CUBIC CONTENTS AND COST
DIAGRAM (NOT TO SCALE)
DINING ROOM
LOUNGE
KITCHEN
HALL
GARAGE
BEDROOM
LANDING
PLAN OF GROUND FLOOR
PLAN OF FIRST FLOOR
EAST ELEVATION
CROSS SECTION

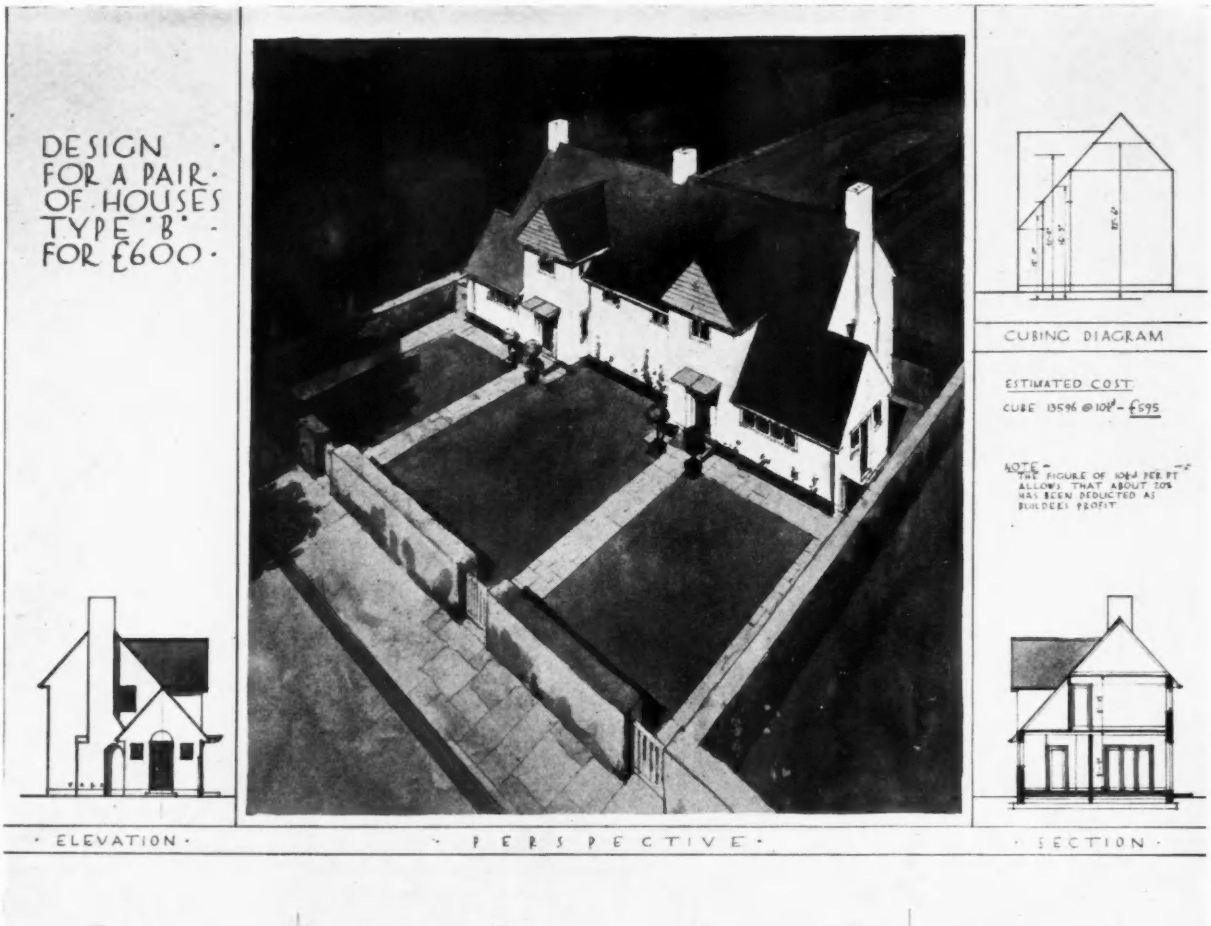
Type D • Detached four-bedroom house, with garage incorporated or detached, costing £1,000 • First prize (thirty guineas) • J. W. Davidson, Sheffield. The assessors' comments on this and the other designs reproduced in this issue appear on page 198.


THE CEMENT MARKETING COMPANY LTD
ARCHITECTURAL COMPETITION
TYPE 'A'
TERRACE HOUSES
SECTION A–A
SECTION B–B
BACK ELEVATION
DINING RECESS
KITCHEN
LIVING ROOM
BATH
W.C.
BED ROOM 1
BED ROOM 2
BED ROOM 3
GROUND FLOOR — PLAN — FIRST FLOOR
FRONT ELEVATION

Type A • Terrace three-bedroom house, costing £500 (suitable for a scheme of 48 houses in terraces of six). First prize (thirty guineas) • C. A. Charlewood Turner, Wrotham, Kent.


ELEVATION TO GARDEN
SECTION A-B
BED RM
BATH
FIRST FLOOR PLAN
LIVING RM
KITCHEN
HALL
COATS & PRAM
ENTRY
GROUND FLOOR PLAN
ELEVATION TO ROAD

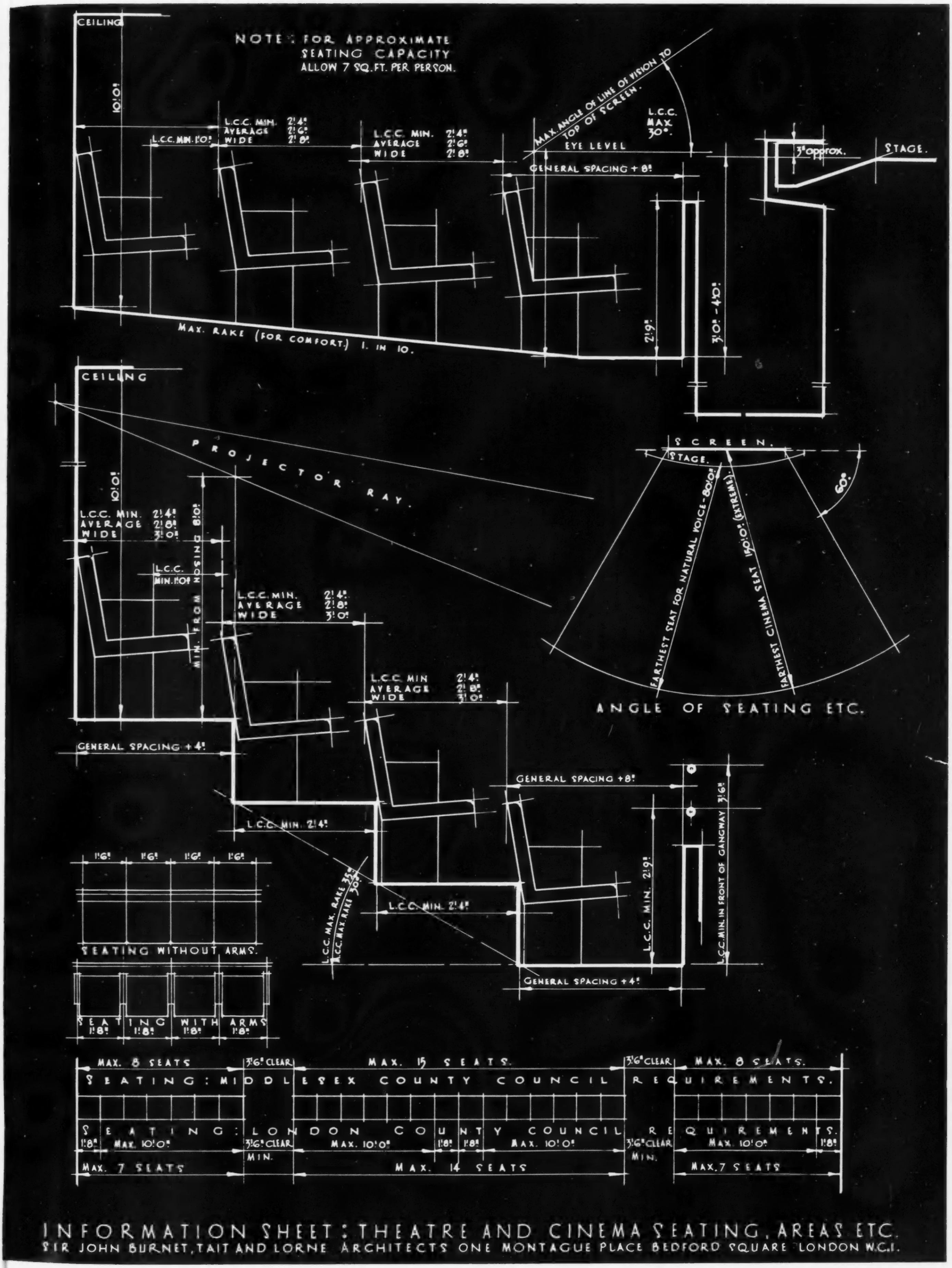
Type A • Terrace three-bedroom house, costing £500 (suitable for a scheme of 48 houses in terraces of six). Second prize (fifteen guineas) • C. P. Greenwood and Ivan Williams, Wolverhampton.


DESIGN · FOR A PAIR · OF · HOUSES TYPE 'B' · FOR £600 ·
CUBING DIAGRAM
ESTIMATED COST
CUBE 13596 @ 10½d – £595
NOTE –
THE FIGURE OF 10½d PER FT ALLOWS THAT ABOUT 20% HAS BEEN DEDUCTED AS BUILDERS PROFIT
· ELEVATION ·
· PERSPECTIVE ·
· SECTION ·
· NORTH · ELEVATION ·
· SOUTH · ELEVATION ·
SITTING ROOM
MEALS ROOM
KITCHEN
HALL
LAR.
FUEL
BEDROOM
CUPD
· GROUND · FLOOR ·
· FIRST · FLOOR ·
SCALE OF FEET

636

Type B • Semi-detached three-bedroom house, costing £600 • First prize (thirty guineas) • William A. Funnell, Purley.

F


CEILING
NOTE: FOR APPROXIMATE SEATING CAPACITY ALLOW 7 SQ.FT. PER PERSON.
10'0"
L.C.C. MIN. 1'0"
L.C.C. MIN. 2'4" AVERAGE 2'6" WIDE 2'8"
L.C.C. MIN. 2'4" AVERAGE 2'6" WIDE 2'8"
MAX. ANGLE OF LINE OF VISION TO TOP OF SCREEN.
L.C.C. MAX. 30°.
EYE LEVEL
GENERAL SPACING + 8"
3" approx.
STAGE.
2'9"
3'0" - 4'0"
MAX. RAKE (FOR COMFORT) 1. IN 10.
CEILING
PROJECTOR RAY.
10'0"
L.C.C. MIN. 2'4" AVERAGE 2'8" WIDE 3'0"
L.C.C. MIN. 1'0"
MIN. FROM NOSING 8'0"
L.C.C. MIN. 2'4" AVERAGE 2'8" WIDE 3'0"
L.C.C. MIN 2'4" AVERAGE 2'8" WIDE 3'0"
GENERAL SPACING + 4"
L.C.C. MIN. 2'4"
L.C.C. MAX. RAKE 35° A.C.C. MAX. RAKE 30°
L.C.C. MIN. 2'4"
GENERAL SPACING + 8"
L.C.C. MIN. 2'9"
L.C.C. MIN. IN FRONT OF GANGWAY 3'6"
GENERAL SPACING + 4"
SCREEN.
STAGE.
60°
FARTHEST SEAT FOR NATURAL VOICE - 80'0"
FARTHEST CINEMA SEAT 150'0" (EXTREME)
ANGLE OF SEATING ETC.
1'6" 1'6" 1'6" 1'6"
SEATING WITHOUT ARMS.
SEATING WITH ARMS
1'8" 1'8" 1'8" 1'8"
MAX. 8 SEATS
3'6" CLEAR
MAX. 15 SEATS.
3'6" CLEAR
MAX. 8 SEATS.
SEATING: MIDDLESEX COUNTY COUNCIL REQUIREMENTS.
SEATING: LONDON COUNTY COUNCIL REQUIREMENTS.
1'8" MAX. 10'0"
3'6" CLEAR MIN.
MAX. 10'0"
1'8" 1'8"
MAX. 10'0"
3'6" CLEAR MIN.
MAX. 10'0"
1'8"
MAX. 7 SEATS
MAX. 14 SEATS
MAX. 7 SEATS

INFORMATION SHEET: THEATRE AND CINEMA SEATING, AREAS ETC.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 4 •

SEATING FOR THEATRES

•

THIS week's Information Sheet deals with seating in theatres, cinemas, etc., being a companion to its two predecessors, giving similar data for restaurants and for schools.

The story of how these drawings—in themselves exemplars of the draughtsman's art—came into existence in the office of Sir John Burnet, Tait and Lorne, and of how, far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, has already been told.

The very fact that these Information Sheets, of a type in common use in America and Germany, are new to us here points the need for architects in this country to rationalize the activities in their own offices.

No one can avoid being impressed by the vital character of the information conveyed by these graphic and tabular means in the minimum of space with the maximum of clarity; they give, at a glance, just those very details which, though known to have been received some time or other, will usually take hours of search to unearth. Needless to say, their value depends on their being up-to-date.

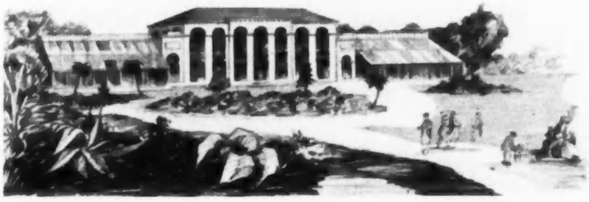
It is arguable that one reason why, in the past, it has not been easy to collate such statistics, has been the reluctance of manufacturers in this country to perceive the advantages to them of standardizing the size and style of their catalogues and lists of goods, and the loose sheets by which, from time to time, they are revised, so as to reduce the architect's problems in compiling a reference library. Standardization in this respect has long been adopted in other countries.

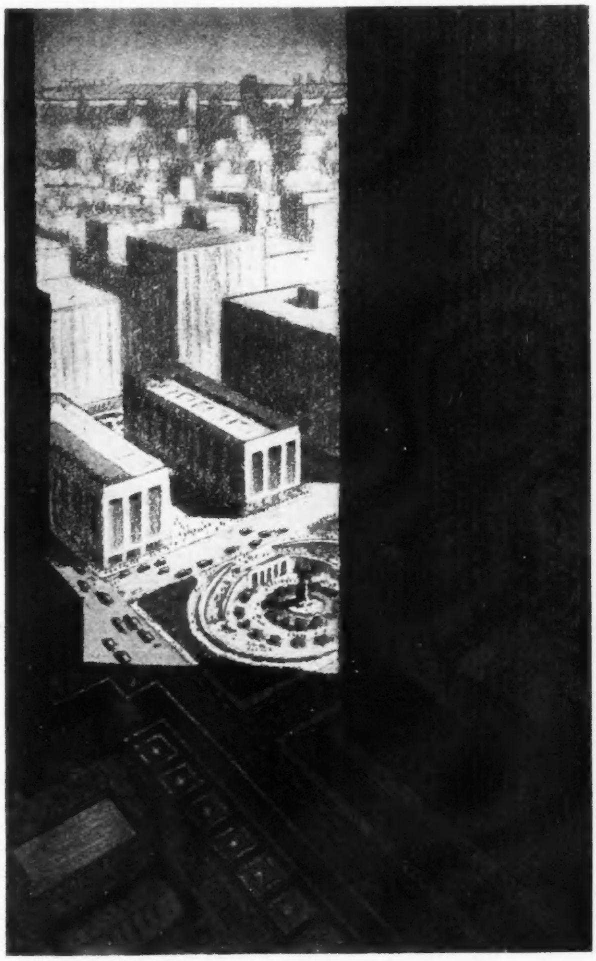
It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

THE ROCKEFELLER CENTER, NEW YORK

THE SITE, AND BRITISH EMPIRE BUILDING



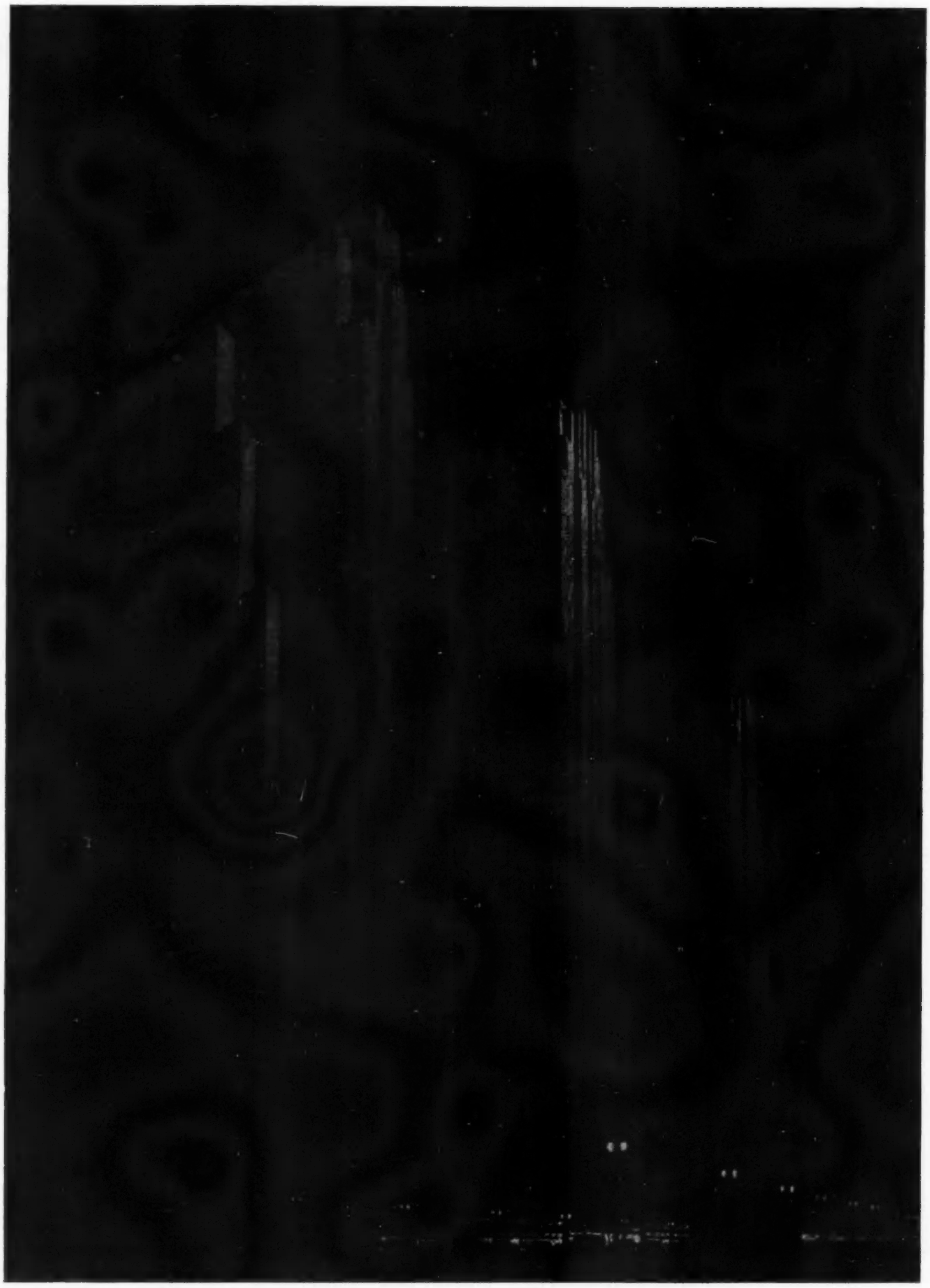


THE British Empire Building, which figures in several illustrations of the Rockefeller Center in this issue, and is seen in this lower view—it is the left-hand of the two small blocks, that on the right being the French—is one of four national buildings in the group that is to cover the twelve-acre site in the heart of New York. That site was formerly occupied by the Elgin Botanic Garden, of which the upper illustration is reproduced from an old print in Valentine's Manual, 1859. It was bought by Dr. David Hosack in 1801 for $5,000; by 1875 its value had increased to about $7,000,000.

Though imposing as a unit, the British Empire Building, which faces Fifth Avenue, is tiny in comparison with the 70-story R.C.A. skyscraper which towers behind it to a height of 850 ft., and is the heart of Radio City. To this building Frank Brangwyn is to contribute mural decorations. The Center is to carry four other skyscrapers of from 30 to 50 stories in height. One of these—the R.K.O. building—was illustrated last week.

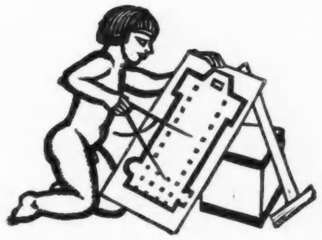
Between the British and French buildings is schemed a wide promenade leading down to the Sunken Plaza, nearly an acre in extent, laid out with flower walks and fountains. The associations of the site are commemorated both by this garden and by the profusion of roof gardens.

In the British Empire Building will be displayed the finest products of British art and craftsmanship. On these, by special Act of Congress, Customs duties are to be waived. The building is to be open in May.



THE ROCKEFELLER CENTER, NEW YORK

This imaginative impression shows the view from Fifth Avenue of the group of towers of masonry under "the star-spangled banner" of night. On the extreme right is dimly seen the outline of the British Empire Building with, next it, to the left, its companion, The French National Building. Other views of the Center appear on pages 231-233.



BUILDING SOCIETIES AND RECONSTRUCTION

THE movement towards co-ordination of national activities as far as housing construction is concerned has gained impetus, and several weighty pronouncements have been issued, particularly by the chairmen of the Building Societies, regarding the necessity for a new Housing Board which, at some points, would resemble closely the organization described by THE ARCHITECTS' JOURNAL.

There is, however, a danger that enthusiasm for housing may take the form of support for the Government in its new anti-housing bill. We have never maintained that housing should be taken out of the hands of local authorities and municipalities, and transferred exclusively to private enterprise, and that the State should wriggle out of its responsibility to provide a proper standard of social welfare for the population under its control.

What we have advocated is the development of an ambitious plan of national reconstruction which would carry on the proposals elaborated by the Minister of Reconstruction, fit them into properly-conceived regional-planning and town-planning systems, and, in this way, initiate a period of economic revival unaccompanied by economic waste. In this work the Building Societies can perform a very useful function, but we should not blind ourselves to the fact that housing developments under the Building Society system have not, on the whole, been as beneficial as they ought to have been.

The Building Societies are essentially financial institutions which advance funds on the security of mortgages raised on building property. They are directly concerned in the value of such security and only indirectly in design, function or location. Consequently, innumerable housing schemes have come into existence which, under any proper plan, would not have been permitted, and those housing schemes have been financed by the Building Societies.

It is doubtful also whether the housing has, in the long-term view, been benefited by this separation between finance and construction on the one hand, and, in innumerable cases, between construction and architectural planning on the other.

The interest charges have been excessively high by any standard, with a result that houses have been either expensive, if properly designed and constructed, or shoddy and cheap, if inexpensive. What is wanted now is a more intimate relationship between the organizations financing building and the purchase of houses and the organizations actually designing and constructing them, so that the fullest advantage can be taken of the existing low rates of interest, of existing improvements in the use and application of materials, of existing standards in domestic architecture. Such co-operation pre-supposes a new body altogether or, if such a new body is not desirable, a complete change in the principles under which the Building Societies operate. Such a change may require legislation and might be preferable to the formation of an entirely new type of utility organization.

The chairmen of the Building Societies have shown themselves to be men of progressive minds and, if entrusted to them, the new Housing Board or Boards would no doubt carry out their function with complete success. But we must be careful to distinguish between what the Building Societies have done in the past and what a scheme of planned reconstruction based on housing demands would now require. The proposals put forward by Sir Raymond Unwin deserve the closest scrutiny if a confusion of ideas is to be avoided. We do not want in this country an enormous collection of houses, built indiscriminately in order to provide immediate employment to the Building Industry, because we have suffered in the past from this type of activity.

The building trades will be served more effectively by proper co-ordination of housing schemes, by introduction on the widest possible scale of architectural and economic planning, and by a proper conception of the part construction should play in the rebuilding of Britain. In our New Year number, one writer advocated the rebuilding of Glasgow, a proposal which has met with some opposition in that city, partly because vested interest in property is so strongly consolidated there. But the rebuilding of Glasgow is only part of the whole national programme of rebuilding all our centres of population to clear away the debris left behind by the industrial revolution. Practically the whole of the housing and commercial building carried out by the Victorians is now completely out of date and should be destroyed. It has no artistic value and very little remaining functional value.

The truth of this has already been recognized by industry, which has been forced by pressure of competition to carry out a work of piecemeal reconstruction, with the result that the most daring inventions in architecture and in planning have been associated with industry in recent years.

What has been done in the great industrial plants should be done in housing and commercial building, and the new Housing and Construction Board should devote its attention to this aspect first of all.

Mr. C. Holden, who has been appointed a member of the Royal Fine Art Commission.

NOTES & TOPICS

STIRRINGS FROM OXFORD

OXFORD may compare poorly with its rival, Cambridge, as a vessel for architectural culture, but it is resolved not to suffer the final indignity of allowing the façades of its new buildings to be judged by a bench of magistrates.

*

That such a thing could be proposed in the Oxford Corporation Bill, now before the House of Lords, is a most curious reflection upon the state of mind of this transitional period ; and if the whole University did not rise at once (as it has risen !) to silence the horrible suggestion, there might be no health left in that city.

*

This " control of elevations " legislation is proving more useful as a means of arousing interest in architecture than it could hope to be as a restrictive bye-law.

*

I understand that Professor Reilly's resignation from the Roscoe Chair of Architecture at Liverpool University has been accepted and will take effect from September 30.

*

I do not know how I shall be able to think of the Liverpool School without him, for never was an institution more closely bound up with the life of one man. Professor Reilly is its spirit, its energy, its organizer and its mouth-piece.

*

He did very little that directly or indirectly had no bearing upon its welfare, for he went outside the world of architectural education only to preach a still wider crusade to the general public.

*

In his adopted city he turned indifference towards architecture into civic pride, and with a steady stream of persuasive writing and still more persuasive speech his personal efforts have done more to raise the common level of taste than any other single agency.

*

He retires just when the Liverpool School opens a new chapter in the buildings that are now nearing completion. " within sight of the promised land. . ." as he wrote sadly in a recent letter.

It would be some consolation if this first of architectural educators should be given a knighthood for public services in the cause of architectural education, which not only included the foundation of a school that has become a national asset of first importance, but the education of great masses of the public to an appreciation of fine architecture.

*

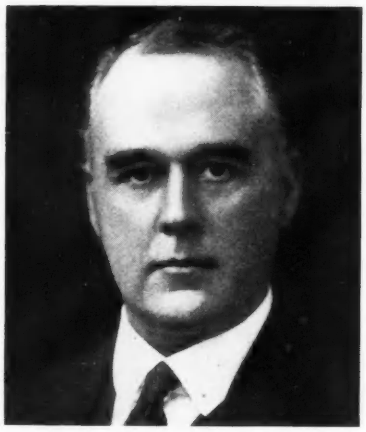
VICTORY

I have no wish to trample on a fallen foe. At the same time it would be folly to pass over the victory that was won on the floor of the House of Commons on Wednesday night for the stout-hearted people—architects and M.P.'s, dukes and dustmen*—who have given their support to the Carlton House Terrace Campaign. Folly because, unless the fact is driven home to our legislators and bureaucrats—yes, and our paint manufacturers too—that responsible public opinion will no longer tolerate the grab-and-be-damned-to-you attitude which is one of the results of *unplanning*—unless the fact is driven home with a pick-axe, they will try the same game on again.

*

One would have thought the Waterloo Bridge business would have taught them a lesson. Not a bit of it. This time *we* have learnt *our* lesson. The Carlton House Terrace Defence Committee represents a body of people with influence in every department of life. Let me warn our friends the enemy that this Committee has no intention of disbanding when the " trouble " has blown over.

*



Mr. A. S. Gaye, Permanent Commissioner of Crown Lands. By a decision of the Government made public in the House of Commons at the end of the Carlton House Terrace Debate the control of Crown Lands is now to be removed from the Permanent Commissioner who formally shared it with the First Commissioner. In future all decisions are to be made by the latter—Major Elliot the Minister of Agriculture—who in his turn is to be advised by a committee of five experts on town planning, etc. This is the first result of the Carlton House Terrace Campaign.

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* A figure of speech. Actually, *maidservants* would be more accurate than *dustmen ;* for, as Mr. J. C. Squire revealed at its first meeting, the funds of the Carlton House Terrace Defence Committee have been swollen by shillings from maidservants as well as cheques from dukes. —Astragal.

THE ARCHITECTS' DIARY

Wednesday, February 15

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. Honan Night. "Civic Sense in Sweden." By R. J. Gardner-Medwin, F.R.I.B.A. 6 *p.m.*

LIGHTING SERVICE BUREAU, 2 Savoy Place, W.C.2. "Lighting of Commercial Buildings." By H. C. Wheat. Discussion to be opened by L. H. Bucknell, F.R.I.B.A. 7 *p.m.*

ILLUMINATING ENGINEERING SOCIETY. At the Polytechnic, Regent Street, W.1. "Radiation, Light and the Eye." By J. W. T. Walsh. 6 *p.m.*

CHARTERED SURVEYORS' INSTITUTION, Great George Street, Westminster, S.W. "Soft Woods." By Percy B. Meyer. 8 *p.m.*

Thursday, February 16

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. At the Hotel Metropole, Leeds. "Some Notes on Floor Construction." By Ewart S. Andrews, B.SC., M.INST.C.E. C.E. 7 *p.m.*

INSTITUTION OF ELECTRICAL ENGINEERS. Annual Dinner to be held at **Grosvenor House, Park Lane, W.1.** 7.30 *p.m.*

GEFFRYE MUSEUM, Kingsland Road, Shoreditch. First of a series of lectures on Furniture. "London in Stuart Times." By D. Martin Roberts. 7.30 *p.m.*

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At Halifax. "The Sense of Harmony." By the Hon. H. A. Pakington, F.R.I.B.A. 7 *p.m.*

Friday, February 17

ARCHITECTURE CLUB. At the A.A., 34 Bedford Square, W.C. Supper-discussion "Architecture and Modern Production; Standardization." To be opened by R. A. Duncan, A.R.I.B.A. 7.30 *p.m.*

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "The Story of the Mansion House." By Sydney Tatchell V.-P.R.I.B.A. 4.30 *p.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Windmills." By Hugh Vowles. 6 *p.m.*

FACULTY OF ARCHITECTS AND SURVEYORS. London and Home Counties Branch. At the Science Museum, South Kensington, S.W. "The Work of the British Non-Ferrous Metals Research Association for the Building Industry." By G. L. Bailey. 7 *p.m.*

Saturday, February 18

Sunrise 7.9 a.m. Sunset 5.19 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS. London Students' Section. Visit to the Building Centre, 158 New Bond Street, W.1. 3 *p.m.*

LONDON SOCIETY. Visit to the Girdlers' Hall, 39 Basinghall Street, E.C.2. 2.30 *p.m*

Monday, February 20

R.I.B.A., 9 Conduit Street, W. "Factories." By Thomas Wallis, F.R.I.B.A. 8 *p.m.*

It has come to stay, and its object, I understand, will be to act as a Vigilance Committee.

*

A Vigilance Committee which will seek not only to preserve but to create amenities; not to prevent building (except in the wrong place), but to *create* building, of the right kind, in the right place. To represent the principle of *planning* in urban development against the non-principle of *unplanning*.

*

Unfortunately, the Committee lacks the support of two eminent men. I refer to *Beachcomber* and Lord Castlerosse. Never mind. It will have to drag along somehow without them.

*

IN THE HOUSE OF COMMONS

The trial in *Alice* after the pack had got up and fluttered down on the unfortunate girl—that was what the floor of the "'ouse" looked like to the Distinguished Stranger on the night of the debate. Every bench was littered with large sheets of paper. Closer inspection showed that they were copies of the "opinions" on Carlton House Terrace published in *The Architectural Review* and THE ARCHITECTS' JOURNAL for the Defence Committee. Sir Arthur Steel-Maitland and Mr. Hugh Molson had obviously been busy.

*

When Captain Crookshank referred to THE ARCHITECTS' JOURNAL I noticed Major Elliot, the Minister for Agriculture, who had to reply for the Government—and for himself, for he is first Crown Commissioner—scribbling hurriedly. I hoped that he was going to challenge some of the accusations made in this JOURNAL, but when he got up he very wisely evaded referring to them.

*

Not that he shirked the issue. He made what amounted to a very handsome apology—for himself, for the Crown Commissioners, and for the Government. Major Elliot is much too able a man to believe in underpinning a rotten cause. He is spoken of as a future Prime Minister.

*

In agreeing with the motion put by Captain Crookshank* he admitted that maladministration had occurred, and undertook to reorganize the office in such a way that the First Commissioner will in future be solely responsible for all decisions and policies. This means that the Permanent Commissioner, Mr. A. S. Gaye, is deprived of his powers.

*

Up till now, as I have constantly reminded my readers, Mr. Gaye has had equal powers with the Minister, and has used those powers to pull down Carlton Gardens. Major Elliot himself, of course, had nothing to do with this, as he became First Commissioner after the deed had been done.

*

But Major Elliot went further than this. He revealed that the Prime Minister has stepped in and has decided to appoint a committee of five "suitable" persons to advise Major Elliot himself on all questions of art and town planning as related to the work of the Crown Lands.

*

This means that the First Commissioner himself cannot take decisions without the consent of persons responsible to the public—so we may deduce that Carlton House Terrace is definitely "saved."

*

But where the Fine Art Commission comes in, quite frankly I don't know. Incidentally, I hear that there has been a change in that august body. Sir Reginald Blomfield has resigned.

*

MR. MORRISON'S WATERLOO

Although the L.C.C. has decided by a majority vote to recondition Waterloo Bridge the bad grace that has marked that body's dealings with the problem will spin out the preliminaries until it may be said that ten years have gone by with nothing done.

*

Why the idea of architectural dictation should arise in the mind of Mr. Herbert Morrison I find it hard to understand, because, Waterloo Bridge being a matter of public interest, the expression of architectural (and lay) opinion one way or another is only a matter of informed taste saying that the bridge is a beautiful thing and too good to lose, or *vice versa*.

*

It so happens that most people have thought it good, and that Mr. Morrison is in a minority. This painful discovery seems to have angered him considerably.

ASTRAGAL

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* This is fully reported on p. 236. An article also appears on p. 235. —ED. *A.J.*]

NEWS

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Convert what we now call Unemployment Benefit into Reserve Pay with Training 237

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"You, with your Carlton House Terrace Campaign, have done more in a few months in the way of educating the public in architectural principles than has been achieved in many past years" 238

Housing must be considered in relation to the essentially connected services of transport, highways and public utilities 240

There are five methods for dealing with the major country problem of where to build and where to farm *which I prefer to the more usual* where to build and where to refrain from building 246

The Town Clerk of Bath snubbed—very properly—by the Bath Preservation Society 250

●

ROYAL FINE ART COMMISSION

Mr. Charles Holden, F.R.I.B.A., has been appointed a member of the Royal Fine Art Commission, in place of Sir Reginald Blomfield, R.A., who has resigned. Sir Reginald has made the following statement:

I have resigned because I was not satisfied about several subjects which have arisen recently.

It has been stated that the controversy which has occurred over the rebuilding of No. 4, Carlton Gardens has led to my decision. That is only one of the points which have been under discussion.

My resignation is not due to any quarrel with the Fine Arts Commission itself. It is rather a personal matter, and I do not wish to discuss the reasons.

RATES OF WAGES

A debate on wage-rates in the building industry between Lt.-Col. Sir Francis Freemantle, M.P., and Mr. R. Coppock, the Secretary of the National Federation of Building Trades Operatives, was broadcast in the National Programme on Monday night.

The first speaker contended that building could be cheapened by a reduction of wage costs, the second that, employment being irregular, high wage rates were necessary.

SIR,—*It is wonderful to see the Building Industry which has for 2,000 years been content to take what business came its way suddenly realizing that the British public might be persuaded to build for the advantages of good building, that business might be increased by publicity, and that a building boom is a possibility which may be secured by a united effort.*

I am sure that during the last month more comment has been published on building in the general press than ever before which does great credit to the Public Relations Committee of the Building Industry.

A. LEDAMUN

[*The list of subscriptions received by the Public Relations Committee up to Monday last amounted to £1,895 17s. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.* —ED., *A.J.*]

THE TWO TERRACES

Professor A. E. Richardson, F.R.I.B.A., in last Sunday's *Observer*, discussed the threatened destruction of the two terraces—Carlton House and Adelphi. He suggested that it showed the need for a survey of the historical quarters of London which remain—and not only a survey, but a scheme for the preservation of famous centres.

Following the proposals to rebuild Carlton House Terrace, there comes the renewed threat to destroy the sole remaining quarter of Georgian London between the Temple and Whitehall.

To my way of thinking the re-conditioning of the Adelphi should be the first step towards the realisation of a scheme for the preservation of the accepted amenities of London. It should not be beyond the scope of architects competent to deal with such matters to re-endow this famous quarter with a measure of its former status.

MODERN TENDENCIES

"Modern Tendencies in Architectural Design," was the title of a paper read by Mr. W. B. Edwards, M.A., A.R.I.B.A., Lecturer on Architecture at the Victoria University, at a meeting of the Manchester Society of Architects on Wednesday last.

Owing to the development of steel, concrete and glass, any architect, he said, who today borrowed a stylistic envelope from the past did so because he was not original enough to create the one truly appropriate to the new age.

EDWIN GUNN ON TEXTBOOKS

Mr. Edwin Gunn, A.R.I.B.A., lecturing on "The Textbook and the Craftsman" at Sheffield University on February 9, pointed out the importance of, and need for a single building book to supplement the ordinary textbook, "oriented not towards technical examinations, but towards the execution of plain good work . . . . mainly a series of whys, wherefores and don'ts, with convincing photographic comparisons."

Mr. Gunn also remarked that measures should be taken "to interest executants in their work by letting them know the general aim and motive—for instance, photo prints are cheap, and a set exhibited in the men's mess room would at least prevent them from working blind."

R. I. B. A.

THE NEXT MEETING

A paper entitled "Factories" is to be read by Mr. Thomas Wallis, F.R.I.B.A., at the Institute on Monday next at 8 p.m.

THE ROYAL GOLD MEDALIST

Intimation has just been received that His Majesty the King has approved the award of the Royal Gold Medal to Sir Charles Peers, C.B.E., M.A., F.R.I.B.A., in recognition of his distinguished services to Architecture and Archæology.

The Medal will be presented to Sir Charles Peers at a general meeting of the Institute on April 3, at 9 p.m.

ELECTION OF MEMBERS

At a meeting of the Council, held on February 6, the following members were elected:—

As Hon. Corresponding Member (*1*)—Pond, Irving K., C.E., Past-President American Institute of Architects, HON.M.A., HON.D.ARCH. (MICHIGAN).

As Fellows (*9*)—Auty, J.; Calvert, Major C. H., M.C.; Edwards, A. T., M.A. OXON; Meldrum, P. H.; Stephenson, A. G.; Tranmer, F.; Turner, D. K.; Brinsley, H. G. W.; Rees-Poole V. S.

As Associates (*12*)—Ap Thomas, I.; Atkinson, J. R.; Bayes, K. A. H.; Campbell, K. J.; Ciregna, A. P.; Denison, T. E. T.; De Wet, R. L.; Gollins, F.; Kerswill, F. E.; McKenzie, C. C.; Nicholas, M. F.; Sidbottom, J. G.

As Licentiates (*7*)—Arnold, W. L. N.; Campbell, D. C.; Leech, J.; MacTaggart, M.; Osborne, S. M.; Sugden, J. T.; Ware, E. F

THE TIMES

FLATS FOR LONDON WORKERS

A £70,000 SCHEME

IMPROVEMENTS IN CANNING TOWN AND LAMBETH

Schemes to provide, at a cost of £70,000, for the erection of flats and cottages for working-class families in Canning Town and Lambeth are to be carried out by the Society for Improving the Conditions of the Labouring Classes, an organization founded in 1830 and incorporated by Royal Charter 20 years later.

The work of erecting the "Temple of Peace" in Cathays Park, to the north of the Technical College, at Cardiff, is about to be commenced. The new building, which is estimated to cost £120,000, will be the joint headquarters of the Welsh League of Nations Union and the King Edward VII. Welsh National Memorial Association, which is engaged in fighting tuberculosis.

YORKSHIRE TELEGRAPH AND STAR

£750,000 SKYSCRAPER.

Sheffield Architect's Plans Provisionally Approved.

A Sheffield architect's plans for a skyscraper hotel to be erected on the South Shore, Blackpool, at a cost of about £750,000, were provisionally approved by the Blackpool Corporation Building Plans Committee yesterday.

IPSWICH EVENING STAR

COLCHESTER'S NEW £200,000 BUILDING.

A scheme mooted twelve years ago for additional buildings for the Royal Eastern Counties' Institution at Colchester has now reached fruition, for there is in progress at Turner Road, Mile End, excavation work and foundation laying for blocks and premises which will cost, in erection and equipment, a figure over £200,000. This is, however, only part of a larger scheme, which it is intended ultimately

THE MANCHESTER GUARDIAN

A new Post Office building to be used as parcels and sorting offices is to be erected at a cost of £100,000 at Hatton Garden, Liverpool.

NEW £100,000 HOTEL FOR CLEVELEYS

The Fleetwood magistrates yesterday granted a provisional licence for a new hotel, to cost £100,000 which it is proposed to build on the promenade at Cleveleys. The hotel is to have a bathing pool, and will have 129 bedrooms.

PRESTON'S NEW BATHS

£58,000 Scheme Approved by Council

With only one dissentient, Preston Town Council to-day decided in favour of the erection of new baths at a cost of £58,000

GLASGOW HERALD

SCOTSTOUN HOUSING SCHEME

A minute of the Housing Committee recommending the acceptance of offers amounting to more than £200,000 for the erection of 730 houses at Victoria Drive, Scotstoun (398 in the tenement section and 332 in the cottage section), was adopted.

NEWCASTLE EVENING CHRONICLE & EVENING WORLD

BUILDING BOOM FOR TYNESIDE

£2,000,000 Private Housing Projects

HOUSING schemes, to cost approximately £2,000,000, are being promoted on Tyneside by private enterprise, and rapid development is anticipated in the Spring.

Biggest of these schemes is the lay-out of a new town on the outskirts of Newcastle, planned to provide sites for 1,900 semi-detached villas, to accommodate some 8,000 people.

Schemes for a further 300 houses at Low Fell, to cost approximately £200,000 have been approved by Gateshead Housing Committee this week. Work has already begun on 116 houses and a further 66 are to be built by Mr. E. P. Calderwood, who has in recent years developed the Chow Dene Estate, Low Fell.

On the Broadway estate at Whitley Bay, the first 140 houses have been completed, and at Briardene, Whitley Bay the £200,000 scheme is rapidly developing

THE STAR,

Tenders are invited for the reconstruction of Harefield Sanatorium at a cost of £165,000.

GRIMSBY EVENING TELEGRAPH

PLANS PASSED FOR 800 NEW HOUSES

BUILDING schemes submitted on behalf of several landowners who propose to develop estates in the Laceby-road and Little Coates areas were agreed to by the Grimsby Corporation Highways Committee last night after a protracted discussion.

DAILY HERALD

Dudley has resolved to proceed with a £60,000 plan for new municipal buildings, and hopes that the Board of Education will now sanction the £90,000 project for a new technical college.

THE MANCHESTER CITY NEWS,

One of the big plans on which work is now beginning is the new £150,000 structure for the Manchester Northern Hospital, situate on 3½ acres of Alms Hill, off Cheetham Hill Road.

A big municipal job which it has been decided to put in hand at once—under Government pressure, curiously enough—is the new police headquarters, Jackson's Row. The estimated cost is £120,000

THE DAILY TELEGRAPH,

The Ministry of Health has approved of an expenditure of £37,242 on Willesden's third large municipal housing scheme.

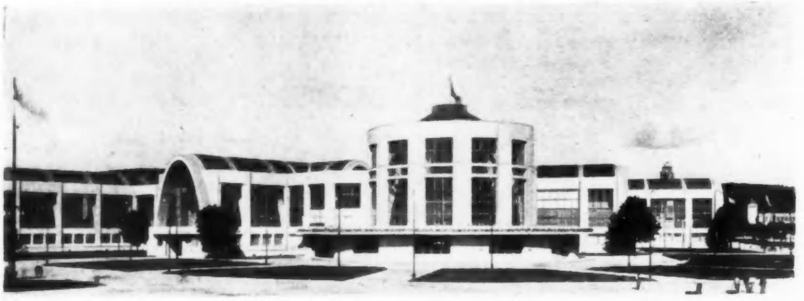
THE DAILY EXPRESS.

BURGH TO SPEND £25,000 ON NEW HOUSES

At to-day's sitting of the Dean of Guild Court of the Burgh of Motherwell and Wishaw building plans amounting to a total of £25,000 were passed.

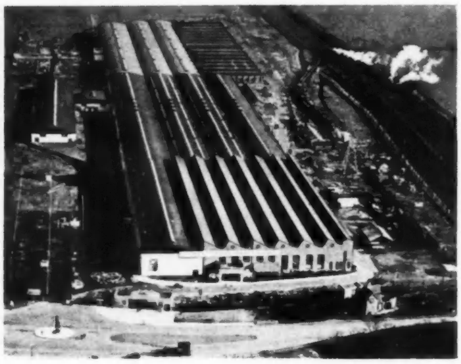
THE BUILDING DRIVE. On the page corresponding to this, in our issue for February 1, there was reproduced a mere handful of snippets from among the week's newspapers. They were fraught with promise of a building boom. But the activities of the Public Relations Committee of the Building Industries National Council are already producing something more concrete than optimistic anticipations. The above cuttings refer to work actually started or definitely contracted for, north, east, south and west. There could be no stronger argument in favour of financial support on the modest scale for which the Committee has appealed.

BRÜNN—AND BRUM



ABOVE: THE BRÜNN EXHIBITION—GENERAL VIEW.

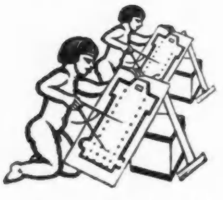
The exhibition buildings are established over an area of 75 acres in the Vale of Pisárky, adjacent to the ancient and modern town of Brünn, which has a population approaching a quarter of a million, and is the greatest industrial centre of Czechoslovakia. Brünn is the Manchester (or Birmingham) of the country, and produces cotton, wool and silk goods, light and heavy machinery, leather and hardware. The layout of the grounds, and the design of the buildings was entrusted to architects. An interior view of the machinery section appears on page 248.



RIGHT: THE BRITISH INDUSTRIES FAIR, BIRMINGHAM.

The exhibition buildings are established at Castle Bromwich, adjacent to the modern city of Birmingham, the "city of a thousand trades," which has for its watchword "Forward" and is the greatest industrial centre in the world. The buildings are large sheds, extended from time to time, but still too small to provide adequate space for would-be exhibitors. There is no apparent plan for the arrangement of exhibits, and there is no indication that the buildings have been designed to house an exhibition.

COMPETITION



NEWS

EXHIBITION HALL

The Management of the Manchester Building Trades Exhibition (April 25 to May 6) offer three awards, of £150, £75 and £25, to the authors of the schemes placed, first, second, and third, respectively, in a competition, open to all British subjects, for the design of a new Exhibition Hall for Manchester. The assessors, appointed by the Manchester Society of Architects, are as follow: Messrs. H. S. Fairhurst, F.R.I.B.A.; A. J. Hope, F.R.I.B.A.; and J. Hubert Worthington, F.R.I.B.A.

The conditions of the competition, to save readers the trouble of writing for them, are printed in full below:

SITE: Site to be on a main street in the City with a frontage of 200 ft. and a depth of 600 ft. The back and sides to face minor streets.

ACCOMMODATION: The hall must be planned to give a clear floor area of approximately one hundred thousand square ft., including gallery, free from pillar obstructions.

After provision has been made for an imposing and substantial entrance, with the necessary pay boxes, turnstiles, etc., the remainder of the front should be planned for shops. Shops should also be planned on the two sides and back of hall to a depth of 16 ft. These would be let off as showrooms.

Provision should be made for a balcony on all four sides inside the hall to a depth of approximately 26 ft., and the shops would run underneath. The letting space therefore inside the hall underneath the balcony and backing on to the shops would be 10 ft. in depth. Emergency exits should be provided on each of the two sides and the back, the minimum width to be 12 ft. and the height 16 ft.

As the hall would be used occasionally for seating large audiences, provision should be made for portable seating for horse shows, military tournaments, boxing, etc., and a skating surface suitable for hockey matches.

It will, of course, be necessary to determine the height underneath the balcony by the rake of the seating, in order that the maximum seating accommodation can be provided.

It is suggested that the hall be provided with underground facilities for car parking, storage, etc., etc.

Suitable cafés and kitchen accommodation must be provided.

Mains for the lighting and power, gas pipes, water and waste pipes, etc., will be conducted underneath the floor and ducts should be provided for this purpose. Provision should also be made for overhead electric cranes, and there must be, of course, the usual offices, cloak-rooms, lavatories, boiler house, etc.

Prominent means must be devised to indicate the position of the building by day and night.

The structure must be fireproof, and the materials are left to the discretion of the competitor.

The whole of the designs should comply with the bye-laws and regulations required by the Manchester Corporation.

DRAWINGS REQUIRED: Plans ($\frac{1}{16}$ in. = 1 ft.) of the basement, ground and gallery floors; one front and one side elevations; two sections; $\frac{1}{2}$ in. detail of the main entrance; also an explanatory report. The drawings may be in pencil and wash or ink and wash.

All the drawings submitted are to be exhibited by the Management, who will take due care of them, but will accept no responsibility for injury. The prize drawings may be exhibited by the Manchester Society of Architects if thought desirable to do so, and will afterwards be returned immediately to the competitors concerned, carriage paid. All other drawings will be returned by the Management to the competitors, carriage paid, after the close of the Manchester Building Trades Exhibition.

All designs must be addressed "Architectural Competition," Competition Manager, City Hall, Deansgate, Manchester, and be delivered no later than 5 p.m. on Thursday, April 13, 1933. Any designs submitted later, without satisfactory explanation, will be rejected by the assessors.

No distinguishing mark may be placed upon the drawings or report. The name and address of each competitor must be enclosed in a sealed envelope, in the same package as the drawings. The envelopes will not be opened until after the awards have been made.

DESIGNS FOR COTTAGES

With a view to stimulating interest in the urgent housing needs of the country and also in the campaign to emphasize the necessity of building now, with its attendant advantages of creating employment in the Building Industry, the Building Centre is organizing a competition to produce designs for cottages to be built at a minimum cost and at an economic rent.

A cash prize of one hundred pounds for the most suitable design is offered. To assist competitors, the Centre supply plans.

The assessors will be the Directors of the Building Centre:—

Messrs. Maurice E. Webb, D.S.O., F.R.I.B.A. (Chairman); Robert Atkinson, F.R.I.B.A.; L. H. Bucknell, F.R.I.B.A.; Louis de Soissons, S.A.D.G., F.R.I.B.A.; Sidney Gluckstein, F.I.O.B.; Vincent Gluckstein, F.I.O.B.; G. Grey Wornum, F.R.I.B.A.; and F. R. Yerbury, HON.A.R.I.B.A.

Full particulars are obtainable from the Building Centre, 158 New Bond Street, W.

EXHIBITION OF DRAWINGS

The Cement Marketing Co., Ltd., have arranged a display of 81 of the 825 sets of drawings entered for their competition for designs of houses to promote the artistic use of cement to be held at the Building Centre, 158 New Bond Street, from Monday, February 20, to Monday, March 6, inclusive.

Scale models will be on view and also sample slabs of the materials specified by the winning competitors.

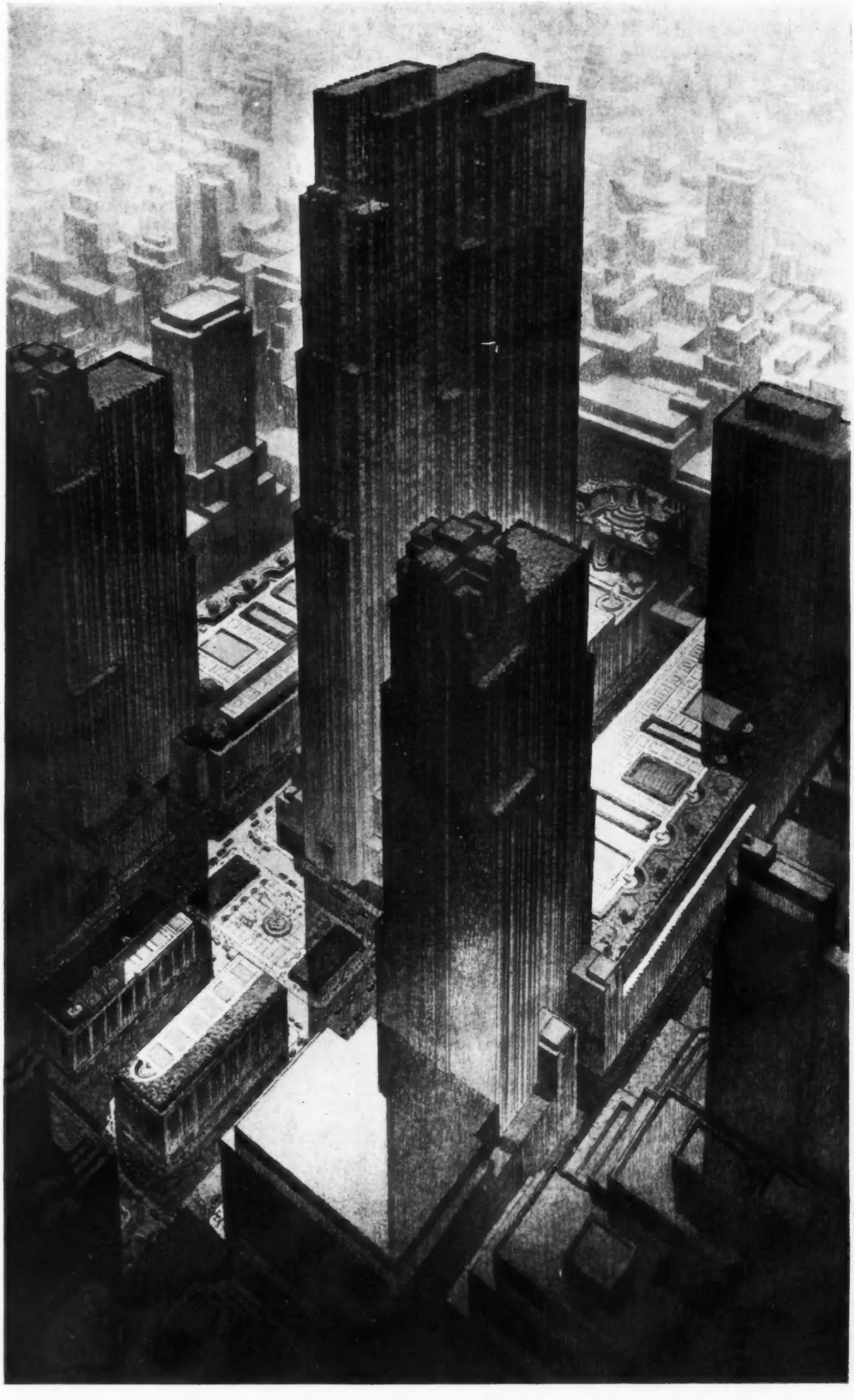
Competitions Open

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First prize, £50.

May 31.—Sending-in Day. Layout of a suburb on the River Escaut, Antwerp. £2,400 in prizes (1st, £800).

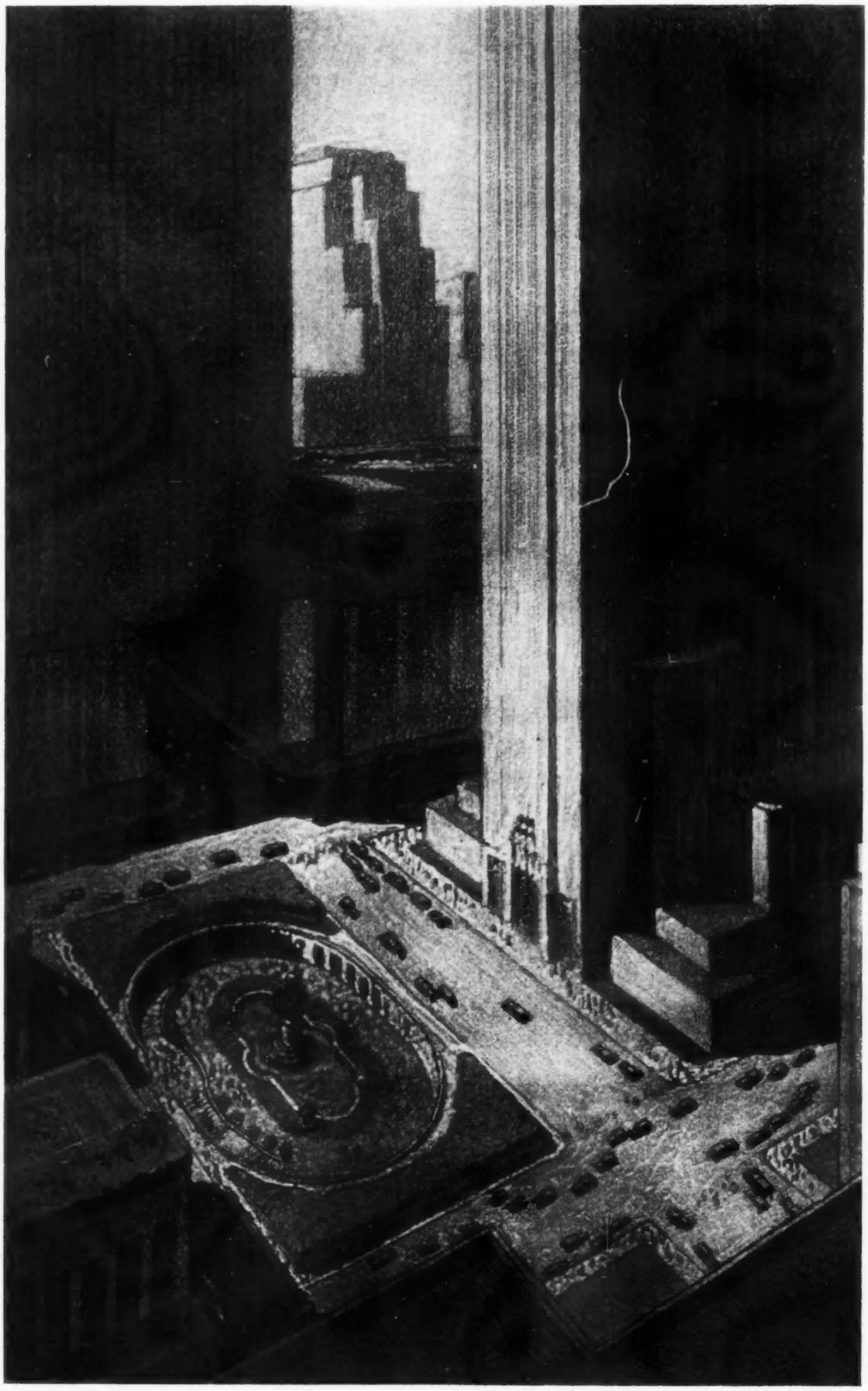
Full Particulars of the above competitions were published in our issue for February 1 last, and December 7, 1932, respectively.

ROCKEFELLER CENTER, NEW YORK



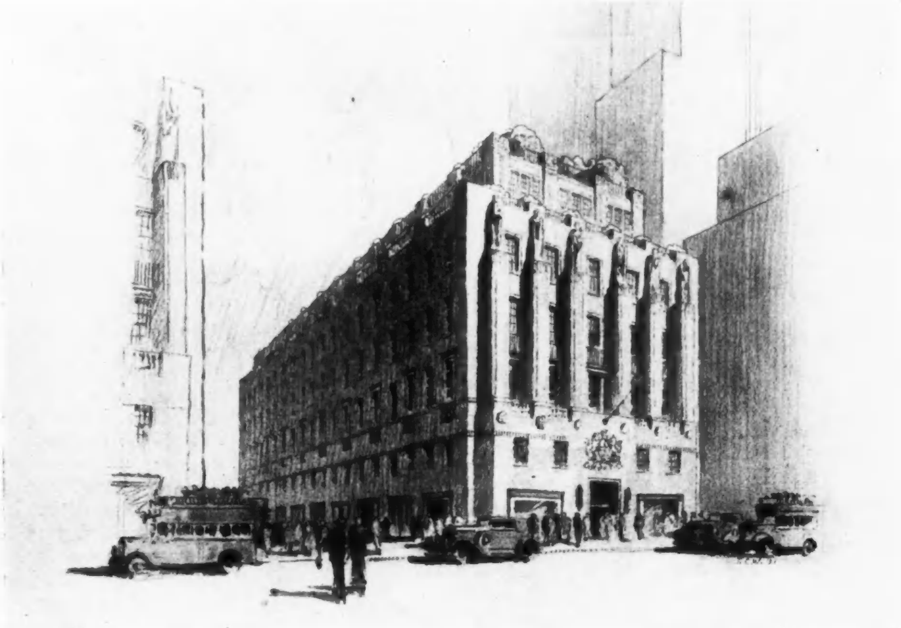
This drawing reveals the plan. The tallest building is the R.C.A. ; at its feet is the Sunken Plaza, with, before it, the British Empire Building (right) and the French National Building (left)

ROCKEFELLER CENTER: BRITISH AND FRENCH

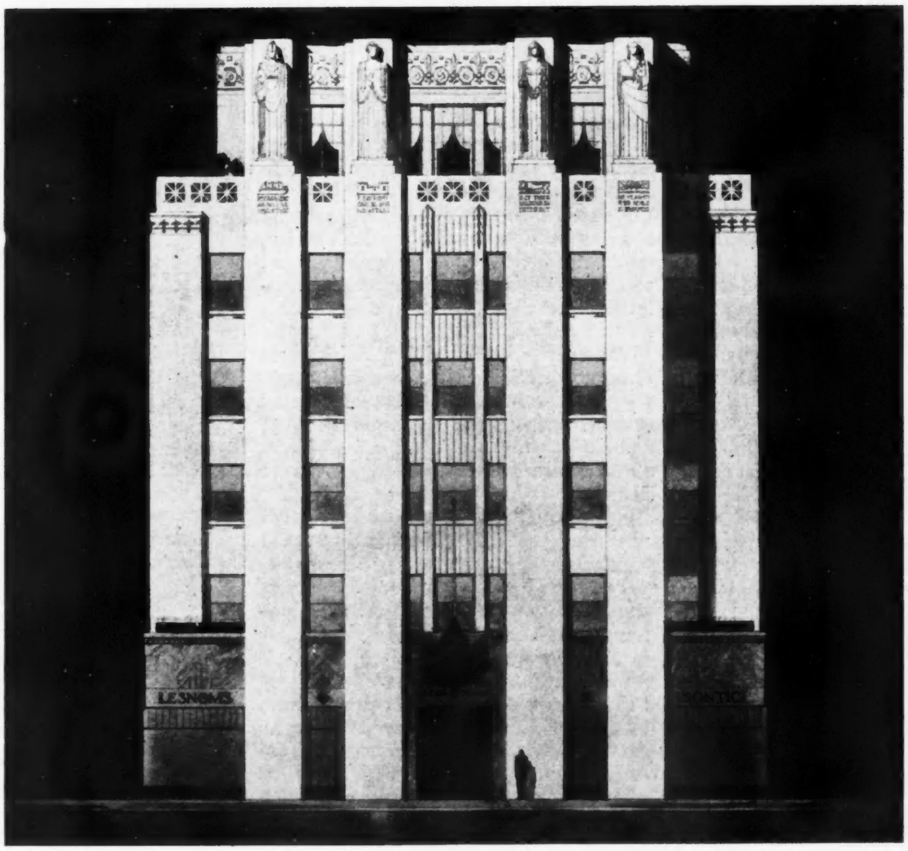


The Sunken Plaza, showing a corner of the British Building on the left.

BUILDINGS ON FIFTH AVENUE, NEW YORK



The British Empire Building from Fifth Avenue.



The front elevation of the French National Building.

OPENING DAY: MONDAY, FEBRUARY 20

REBUILD
THE
BRITISH INDUSTRIES FAIR
AT BIRMINGHAM

[By F. R. S. YORKE]

THERE is no change, it appears, in the general layout of the exhibition, and, as in previous years, the visitor must trudge along interminable passages, shut in on every side by booths that do little credit to the stand-fitter's art.

The scheme is the exact opposite of what it ought to be. The gangways are monotonous because one is so like another, with no open spaces to permit hesitation and a freeing of the mind, without a focal point, a climax, or anything to lend interest to the visual scene. The stands are themselves monotonous because they are all different, conforming to no standard in design, and though one or two isolated examples are not without merit, the majority are meaningless.

Far better if the planning were free and open, and the design of the stands more rigidly controlled, on the lines, for instance, of the late Mr. Tanner's scheme for the exhibition of "Ideal Homes."

There is no sense of spaciousness. From the moment when, on entering the hall, one is brought rudely into contact with a row of stand-ends, the impression is that of a ragged collection of exhibitor's pens, each doing its best to shout its neighbour down.

One is informed, if one presumes to criticize the layout, or the appearance of the ensemble, that "the Midlander is a practical chap, concerned with utility, not æsthetics" and this is, of course, exactly the case. That æsthetics can be of great utilitarian value, the British manufacturer—who can make things as well as anyone else in the world, when he wants to—will not believe. He continues to regard the business man and the artist as distinct types, best apart; though the success of his Continental competitor, whose appreciation of design has done a great deal to stimulate the demand for his goods, should by this time have convinced our own people that "Design in Industry" and "Fitness for Purpose" are more than mere slogans to create employment for the artist.

A bird's-eye view of the chaotic interior of the British Industries Fair, Birmingham.

It must be remembered that no matter what the personal opinion of the inhabitant of "the city of a thousand trades," it is his business at the present time, and especially at the British Industries Fair, to attempt to re-capture foreign trade, and to attract the foreign buyer, who has probably seen exhibitions at Stockholm, Berlin, and Brünn, where the goods exhibited were of admirable design, and excellently presented, and the ensemble governed by a plan.

When the industrial products of Czechoslovakia were shown at Brünn, there was co-operation between artist and manufacturer; the several towns, industrial groups and faculties of art, architecture and engineering, were represented by such men as Goçár, Fuchs and Havliček. The principal hall was designed by Josef Kalous. At Stockholm the architect Asplund prepared the plan, and designed many of the exhibition buildings. At Birmingham there is no sign that either planner or artist have been consulted. There is no indication that the organizers have the remotest conception of the function of the architect, or the importance, to such a scheme, of his powers of co-ordination, by virtue of which the act of walking round an exhibition is made a pleasure rather than a labour. And all this despite the fact that the exhibition is sponsored by the Government.

The exhibitor, who pays for space, has the right to demand an arrangement that is attractive, creating a good impression immediately, enhancing his goods, and enabling the visitor to move in comfort, and to spend several hours in the building without suffering fatigue. In less than an hour, under present conditions, one becomes mentally exhausted.

If the exhibitor did demand such amenities, they would probably be forthcoming, but he is apathetic, and the appalling state of affairs goes on.

The building itself is against the achievement of a broad and spacious effect, being nothing more than a vast shed, of great length—about 1,500 ft.—but with neither the height nor the width of such a hall, even, as Olympia.

Since the exhibition has become a permanent institution, why cannot it be housed in a proper building, erected for the specific purpose? There is without doubt the demand for it. The present shed has been several times extended, and this year, in spite of trade depression, not an inch of available space is unlet. Many exhibitors are showing their goods in the open air, and late applicants, to whom outdoor space is of no use, are being turned away.

In this lack of space lies the only excuse for the congested arrangement, but, if the building is too small, something larger should take its place, and if the building is of an obsolete type it would seem futile to extend it again. Here is an opportunity to provide employment in the building trades. Why not scrap the whole thing and build again, on modern lines? Why not a new hall for the next B.I.F.?

FIRST NOTICES OF THE EXHIBITS

Henry Hope and Sons are exhibiting, for the first time, a horizontal sliding folding window, which differs from previous models in that all gearing is on the inside instead of being exposed to the weather, and there are no exterior channels to corrode or collect moisture. The window can be fully opened or closed by a single movement.

A window with flexible wire opening gear, such as that made for Shell-Mex House, is shown with a sun-blind fitted externally but operated from the internal face.

The ventilating lights of the new coupled window (illustrated) are securely latched when closed, and are as weathertight as the independent horizontally-pivoted type. Each swinging ventilator is secured by two spring catches, instead of the usual single central one. The bottom-hung casement can be made to work independently by a turn of the telescopic connecting links.

*

Messrs. Parker, Winder and Achurch, who were pioneers in the introduction of

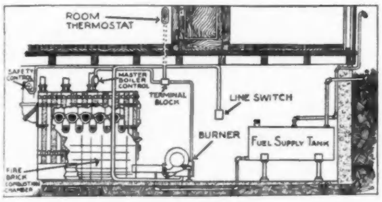


Diagram of the P.2 Parwinac oil-burner installed in a small office building.

the American oil-burner that has until recently held the field on the British market, are now producing a complete range of automatic oil-burners, British-made throughout, and considered by independent experts to be an improvement on the American type.

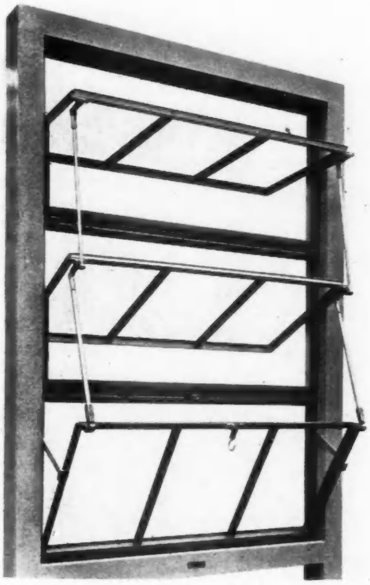
The general advantages of the oil-burner are well known, but an innovation, "peculiar to the Parwinac," is the bent, chromium-plated, heavy drawn copper delivery and return oil pipe, which, by dispensing with right-angle bends, reduces pump friction to a minimum.

Three burners are exhibited under operating conditions. The P.2 type, which is able to deal with boilers up to 450.000 B.T.U.'s (i.e., a small office building or cinema), is shown in the diagram connected to a sectional Beeston boiler.

*

Radiation Ltd., are showing the new Eagle Combination Grate, which provides a big oven for roasting and baking, a boiling hot-plate for boiling and frying, and for use of an extra oven when required, ample hot water, quickly and constantly supplied to bathroom and kitchen sink, and a cheerful kitchen fire that burns brightly whilst cooking proceeds.

Fuel economy has been a primary consideration, one scuttle-full of coal being sufficient to keep the fire burning throughout the day.



A new type of coupled ventilating window; the hopper can be disconnected.

CARLTON HOUSE TERRACE

[By M. I. BATTEN]

THE campaign to save Carlton House Terrace from vandalism has been a long and fierce one, but it has not been in vain. Although the one new and obnoxious building has not been prevented and Messrs. Pinchin Johnson—a firm which, by reason of some of its directors and the holdings of certain blocks of shares, must come under American influence—has seen fit to carry on building operations in the teeth of the strongest architectural, public and Parliamentary opinion; although their Majesties themselves may have to move from Buckingham Palace, if we are to believe *The Daily Express*, yet a victory has been won. Carlton House Terrace itself has been saved, at any rate for the present, Mr. Gaye has been divested of some of his power, and the Government has admitted that a mistake has been made and climbed down.

The questions of the Pinchin Johnson building, the administrations of the Crown Lands and the scandal of Regent Street were thoroughly discussed in the House on February 8, when Captain Crookshank moved, "That in view of the widely expressed dissatisfaction over the recent decisions of the Commissioners of Crown Lands in regard to No. 4 Carlton Gardens, and the uneasiness still felt as to the future of Carlton House Terrace, Carlton Gardens and other Crown Lands in London, this House urges the Government to take immediate steps to reorganize the administration of Crown Lands, and, in particular, to secure that in any future decision, educated and responsible opinion shall be fully taken into consideration."

This resolution the Government accepted, without waiting for a division. The capitulation of the Government is all the more remarkable seeing that it is now revealed by Major Elliot that Messrs. Pinchin Johnson have been approached three times. On each occasion they refused to consider any of the Commissioners' proposals, their argument being that the lease had been signed, that they were acting absolutely within their legal rights in erecting this building to the full height, and that they must consider their shareholders. The Commissioners have asked them to refrain from building the two top stories, offering them accommodation in the adjoining house, No. 1 Carlton House Terrace, and a reduced ground rent if they would accept that accommodation. As the two top stories of their new building have a total area, including corridors, etc., of only 5,270 ft., and as No. 1 Carlton House Terrace has a total area of 19,284 ft., there seems to be no reason why they should be unable to accommodate themselves.

But no, Messrs. Pinchin Johnson choose to carry on, caring nothing for public opinion, Parliament, amenities, the Mall or anything in the world except their American shareholders. It has been said at intervals during the controversy that this well-known firm would be making a most gracious and universally appreciated gesture if it could see its way to meeting public opinion; and that is still the feeling. If the Government can admit that a mistake has been made and climb down, cannot Messrs. Pinchin Johnson do so?

After Captain Crookshank, Mr. Molson and Sir Arthur Steel-Maitland, supported by several other Members, had spoken against the new building and the management of the Crown Lands, Major Elliot rose to defend, as best he might, and at the same time made what was virtually a full apology.

He promised two things on behalf of the Government. First, that the administration of the Crown Lands should be reorganized; that in future all decisions should be made by the First Commissioner, that is, the Minister of Agriculture, ex-officio, who would be entirely responsible to Parliament. Up till now the First Commissioner and the Permanent Commissioner, for the last several years Mr. A. S. Gaye, have apparently had equal powers, and as the one Commissioner is permanent and the other temporary, the former has almost certainly had the controlling voice.

Secondly, Major Elliot announced that the Prime Minister had authorized him to say that a committee of, say, five would be appointed to advise the Minister on such questions.

This Committee, he continued, would not in any way side-track the Royal Fine Art Commission. Perhaps this new committee will not clash with the

Commission, though at a glance it would seem as if the position of that body will become more ambiguous than ever. It remains to be seen who will be chosen for the new Committee, but it is the business of the Carlton House Terrace Defence Committee to see that it is not so constituted that it is merely a sop to public opinion and in reality made up of bureaucrats from Whitehall, who will be inaccessible to the real public opinion and will merely back up the policy of the bureaucrats in the Crown Office.

We do not wish unduly to humiliate the Commissioners of Crown Lands, since our general case has been won, but it must be pointed out that the Carlton House Terrace Defence Committee has no intention of disbanding. It does, in fact, regard itself as a permanent Vigilance Committee for preserving and creating London amenities, and it intends to watch further developments very closely. Public opinion has at last shown that it really does care about fine buildings and amenities and town planning, by presenting a large, united and stalwart front. As *Truth* says in an excellent article this last week, "that so many Londoners are interested in their city is more important than the future of any particular site." The members of the Defence Committee are not only Londoners, they are widespread. They intend to go on being interested, and the battle of No. 4 Carlton Gardens has shown that public opinion, backed up by the Press, carries a very great deal of weight.

ALLEY OF THE HUNDRED FOUNTAINS

The Villa D'Este, Tivoli, Italy. (Pirro Ligorio). Mr. C. E. Hughes, in a paper on "Garden Design: An Inquiry by a Layman," read at a meeting of the Institute of Landscape Architects, held in London yesterday, pointed out that steps ought not to be hidden away, because people going through a properly-designed garden should be enticed by the design from one part to another, and it should be possible to see at a glance, if not the actual steps, at least the spot where they are likely to be situated.

The Parliamentary Debate

A FURTHER debate on Carlton House Terrace and Carlton Gardens took place in the House of Commons last week, when Captain Crookshank, a Unionist Member, moved :—"That, in view of the widely-expressed dissatisfaction over the recent decisions of the Commissioners of Crown Lands with regard to 4 Carlton Gardens, and the uneasiness still felt as to the future of Carlton House Terrace, Carlton Gardens, and other Crown lands in London, this House urges the Government to take immediate steps to reorganise the administration of Crown lands, and in particular to secure that in any future decision educated and responsible opinion should be taken fully into consideration."

He said that Carlton House Terrace was a most discreditable episode in the most discreditable story of the Crown Lands Commissioners, but this grave mistake might do some good in the long run if it woke up some Government to the scandalous conduct of affairs by the Crown Lands Commissioners. What was the good of the House dealing with town planning when a Government Department went out of its way to encroach on one of the few parts of London which were adequately planned at the time they were built? The Carlton House Terrace question was a scandal. The Commissioners for Crown Lands should be dealt with and their administration reorganized so that Parliament had a say in the matter, if for no other reason than that the Commissioners had thought fit in their folly to tamper with what was the great processional way of the Empire.

Mr. Molson, who seconded, said that the House was entitled to know exactly in what capacity Sir Reginald Blomfield was charged with the responsibility of submitting plans to the Royal Fine Art Commission.

Sir A. Steel-Maitland declaredthat the erection of the building in progress was a villainous business. He declined to believe that it was too late to have substantial changes made in its height and character.

The Government's reply was entrusted to Major Elliot, the Minister of Agriculture, who made the best of a bad case. He said it was clear that a regrettable misunderstanding had taken place. No recommendation as to the height of the building was submitted by the Royal Fine Art Commission when they gave their approval, as they considered themselves precluded from making any such recommendations at the time. But they had not felt themselves precluded from making recommendations since. It was a pity that no such advice was given. It was true that the Minister (his predecessor, Sir John Gilmour) had decided that the building should be carried up to the full height permitted by the London Building Act, but he, Major Elliot, was certain that if a recommendation had been submitted by a body of the weight and authority of the Royal Fine Art Commission, such recommendation would have received the attention of the Minister. At any rate, it would have placed on him a responsibility which it was difficult to attach to him in the absence of such a recommendation attached to the approval given by the Commission. The Commissioners offered Messrs. Pinchin Johnson accommodation in the house next door at a reduction of the ground rent, but they were unable to accept the offer. On three occasions the matter had been ventilated with the firm. In his anxiety to make sure that no misunderstanding was taking place, he himself approached the firm before the House rose at Christmas, to see if any useful purpose could be served by an interview, but the firm thought no useful purpose could be served. As to compensation, the compensation required was such that it could not be considered. If the negotiations had succeeded, an additional burden would have been put on the taxpayer, who was already being squeezed and ground down. So far as the Commissioners of Crown Lands were concerned, he did not think that further steps could with dignity or usefully have been taken.

The Government intended to accept the motion. They had decided that in future the Minister should be solely responsible for decisions on policy, and should be responsible to Parliament for such decisions. They also proposed that in the future, in any questions involving æsthetic and other important considerations such as town planning, independent advisory opinion should be obtained, and the Prime Minister authorized him to say that a Committee of, say, five members, would be appointed by him to advise the Minister on such questions when they were raised. This would be an *ad hoc* body, and was not intended to sidetrack the Royal Fine Art Commission, whose advice had been sought before. He would be glad to consult with members who had been interested in this matter, and discuss with them interests that might be suitable to be represented on this body. He hoped the House would consider that, with these decisions, the Government had done justice to this important matter.

The motion was agreed to.

On the Air

Mr. Howard Marshall, on Monday next, will continue the B.B.C. series of talks on "Other People's Houses" with "An Eye-witness Account of Existing Conditions in Manchester." The talk will be broadcast in the National programme at 9.20 p.m.

LETTERS FROM READERS

F. LONGSTRETH THOMPSON,
President, Town Planning Institute.

MALCOLM SPARKES,
Managing Director, Drytone, Ltd.

EDWIN GUNN, A.R.I.B.A.

NATHANIEL LLOYD, F.R.I.B.A.

C. H. B. QUENNELL, F.R.I.B.A.

GILBERT T. GARDNER, F.R.I.B.A.

National Planning

SIR,—If it were necessary to adduce further arguments in support of the setting up of a National Planning Board of the kind adumbrated in my Presidential Address to the Town Planning Institute and discussed at length in the pages of THE ARCHITECTS' JOURNAL, they are to be found in their final and most powerful form in the article which appeared in *The Times* for January 23 under the title of "The Population Trap." In calling attention to the present trends in the growth and distribution of population in this country (and "few things" says the author, "can so accurately be predicted ahead as the trend of human population"), the author states that "some decline in the near future appears inevitable and in certain and not very remote eventualities the drop may be sudden and heavy." He goes on to say that "the effects of this turn in the tide of population must in any case be immense. If some areas are permitted to encourage unplanned growth, such as we have seen in Greater London recently, by attracting population from other parts which are left derelict, the social and economical consequences may well amount to a national catastrophe."

As an example of the new type of situation to be faced, he mentions the decision made by the Manchester Waterworks Committee, a year ago, to postpone indefinitely its Haweswater undertaking, not as a measure of economy but because it was realized that Manchester's demand for water, which had been expected in the next few years to require a great new source of supply, was suddenly ceasing to expand at the anticipated rate. "Unless appropriate measures are quickly taken, many more local authorities, boards of directors and others will find themselves caught in the same unenviable trap. There is a real risk that new housing may be provided, of a type unsuited to the smaller and more adult household which is rapidly replacing the old-fashioned family, and new centres launched, with expensive drains, utility services, roads, schools, libraries, shops and so forth which are doomed never to attract the population they need to justify their existence, or at best to attract it only by ruining rival centres where public and private capital is already irretrievably sunk in providing the same services. If such a process is desirable, it calls for careful planning. Once population approaches stability, competition for it can only lead to losses all round."

"Ultimately," as the author points out, "all human demand is linked to population," and "an authoritative statistical centre to which councils and boards might apply for technical advice when such forward undertakings as the Haweswater project are under consideration might save millions of pounds to the British taxpayer, ratepayer and shareholder."

This is the first essential function that a National Planning Board should perform: the collection, collation and keeping up to date of accurate statistical information, not only in respect of population but concerning all the factors that have to be taken into account in planning for a community that is rapidly reaching, if it has not already reached, the point when it must plan or perish.

Having amassed and digested the necessary data, the Board should produce not a plan but a planning policy, to be applied regionally by regional planning authorities and locally by local authorities, in the form of statutory planning schemes.

Local authorities and regional committees have already done much good work in this direction, but except perhaps in the matter of main road communications, it has lacked any co-ordination from the national standpoint. The growth of individual districts has been planned, but it has been planned without effective consideration being given to any national policy with regard to the fundamental problem of the economic distribution of population and industry. However efficient the platoons may be, they cannot be effective without a plan of campaign.

If, as I think is now generally conceded, a National Planning Policy is urgently required, steps should at once be taken to form a National Planning Board. The Board should, in my view, consist of representatives of all the chief interests concerned; it is impracticable to set out here an exhaustive list, but it will serve to indicate what I have in mind to mention the following: industry, agriculture, commerce, transport, power distribution and public utility services, housing, open spaces, landowners and local authorities.

The National Planning Board could be either an advisory body, as I originally contemplated, or an executive body endowed with the requisite powers not merely to frame a policy but to see that the policy is effectively put into operation through the agency of Regional Committees and Local Authorities. Experience has shown that while advisory planning committees have performed a very useful function they have undoubtedly suffered from a lack of executive powers. On the whole, therefore, I favour an executive National Planning Board. The main thing, however, is that the Board should be constituted as soon and on as broad a basis as possible.

F. LONGSTRETH THOMPSON

SIR,—The Building Industries National Council, so ably described last month in the New Year issue of the JOURNAL, is probably one of the most stimulating facts in the industrial world today. Together with the Central Electricity Board, it marks the beginning of a British Plan which, rightly understood, will effect great changes in our standards of living and also in the whole tone of our industrial relations, with incalculable benefit to both.

This may sound extravagant, but I think it will bear examination. It is the proposed National Planning Board that is so far-reaching. It is now suggested—I believe for the first time in history—that the Building Industry itself shall take a hand, not only in the execution, but also in the planning of a great building programme on the finest possible lines. The Industry itself is to mobilize, for the enrichment of the community, all those vast reserves of technical knowledge, equipment and skill that are at present only partly used. The Industry itself is to create a planning authority—a central Development Board that will turn all this potential wealth into real wealth—the size of the programme being limited only by the available man-power.

It is a very great and unforgettable conception. But as you very rightly observe, it cannot stop there. "Planning for the Building Industry means planning for all industries." In pushing forward our National Planning Board, therefore, we must regard it as a nucleus of something even greater—a National Development Board that will apply the same principle over an ever-widening field and convert what we now call Unemployment Benefit into Reserve Pay with Training. A National Industrial Reserve of Man-

Commission, though at a glance it would seem as if the position of that body will become more ambiguous than ever. It remains to be seen who will be chosen for the new Committee, but it is the business of the Carlton House Terrace Defence Committee to see that it is not so constituted that it is merely a sop to public opinion and in reality made up of bureaucrats from Whitehall, who will be inaccessible to the real public opinion and will merely back up the policy of the bureaucrats in the Crown Office.

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The Government's reply was entrusted to Major Elliot, the Minister of Agriculture, who made the best of a bad case. He said it was clear that a regrettable misunderstanding had taken place. No recommendation as to the height of the building was submitted by the Royal Fine Art Commission when they gave their approval, as they considered themselves precluded from making any such recommendations at the time. But they had not felt themselves precluded from making recommendations since. It was a pity that no such advice was given. It was true that the Minister (his predecessor, Sir John Gilmour) had decided that the building should be carried up to the full height permitted by the London Building Act, but he, Major Elliot, was certain that if a recommendation had been submitted by a body of the weight and authority of the Royal Fine Art Commission, such recommendation would have received the attention of the Minister. At any rate, it would have placed on him a responsibility which it was difficult to attach to him in the absence of such a recommendation attached to the approval given by the Commission. The Commissioners offered Messrs. Pinchin Johnson accommodation in the house next door at a reduction of the ground rent, but they were unable to accept the offer. On three occasions the matter had been ventilated with the firm. In his anxiety to make sure that no misunderstanding was taking place, he himself approached the firm before the House rose at Christmas, to see if any useful purpose could be served by an interview, but the firm thought no useful purpose could be served. As to compensation, the compensation required was such that it could not be considered. If the negotiations had succeeded, an additional burden would have been put on the taxpayer, who was already being squeezed and ground down. So far as the Commissioners of Crown Lands were concerned, he did not think that further steps could with dignity or usefully have been taken.

The Government intended to accept the motion. They had decided that in future the Minister should be solely responsible for decisions on policy, and should be responsible to Parliament for such decisions. They also proposed that in the future, in any questions involving æsthetic and other important considerations such as town planning, independent advisory opinion should be obtained, and the Prime Minister authorized him to say that a Committee of, say, five members, would be appointed by him to advise the Minister on such questions when they were raised. This would be an *ad hoc* body, and was not intended to sidetrack the Royal Fine Art Commission, whose advice had been sought before. He would be glad to consult with members who had been interested in this matter, and discuss with them interests that might be suitable to be represented on this body. He hoped the House would consider that, with these decisions, the Government had done justice to this important matter.

The motion was agreed to.

On the Air

Mr. Howard Marshall, on Monday next, will continue the B.B.C. series of talks on "Other People's Houses" with "An Eye-witness Account of Existing Conditions in Manchester." The talk will be broadcast in the National programme at 9.20 p.m.

LETTERS FROM READERS

F. LONGSTRETH THOMPSON,
President, Town Planning Institute.
MALCOLM SPARKES,
Managing Director, Drytone, Ltd.
EDWIN GUNN, A.R.I.B.A.
NATHANIEL LLOYD, F.R.I.B.A.
C. H. B. QUENNELL, F.R.I.B.A.
GILBERT T. GARDNER, F.R.I.B.A.

National Planning

SIR,—If it were necessary to adduce further arguments in support of the setting up of a National Planning Board of the kind adumbrated in my Presidential Address to the Town Planning Institute and discussed at length in the pages of THE ARCHITECTS' JOURNAL, they are to be found in their final and most powerful form in the article which appeared in *The Times* for January 23 under the title of "The Population Trap." In calling attention to the present trends in the growth and distribution of population in this country (and "few things" says the author, "can so accurately be predicted ahead as the trend of human population"), the author states that "some decline in the near future appears inevitable and in certain and not very remote eventualities the drop may be sudden and heavy." He goes on to say that "the effects of this turn in the tide of population must in any case be immense. If some areas are permitted to encourage unplanned growth, such as we have seen in Greater London recently, by attracting population from other parts which are left derelict, the social and economical consequences may well amount to a national catastrophe."

As an example of the new type of situation to be faced, he mentions the decision made by the Manchester Waterworks Committee, a year ago, to postpone indefinitely its Haweswater undertaking, not as a measure of economy but because it was realized that Manchester's demand for water, which had been expected in the next few years to require a great new source of supply, was suddenly ceasing to expand at the anticipated rate. "Unless appropriate measures are quickly taken, many more local authorities, boards of directors and others will find themselves caught in the same unenviable trap. There is a real risk that new housing may be provided, of a type unsuited to the smaller and more adult household which is rapidly replacing the old-fashioned family, and new centres launched, with expensive drains, utility services, roads, schools, libraries, shops and so forth which are doomed never to attract the population they need to justify their existence, or at best to attract it only by ruining rival centres where public and private capital is already irretrievably sunk in providing the same services. If such a process is desirable, it calls for careful planning. Once population approaches stability, competition for it can only lead to losses all round."

"Ultimately," as the author points out, "all human demand is linked to population," and "an authoritative statistical centre to which councils and boards might apply for technical advice when such forward undertakings as the Haweswater project are under consideration might save millions of pounds to the British taxpayer, ratepayer and shareholder."

This is the first essential function that a National Planning Board should perform: the collection, collation and keeping up to date of accurate statistical information, not only in respect of population but concerning all the factors that have to be taken into account in planning for a community that is rapidly reaching, if it has not already reached, the point when it must plan or perish.

Having amassed and digested the necessary data, the Board should produce not a plan but a planning policy, to be applied regionally by regional planning authorities and locally by local authorities, in the form of statutory planning schemes.

Local authorities and regional committees have already done much good work in this direction, but except perhaps in the matter of main road communications, it has lacked any coordination from the national standpoint. The growth of individual districts has been planned, but it has been planned without effective consideration being given to any national policy with regard to the fundamental problem of the economic distribution of population and industry. However efficient the platoons may be, they cannot be effective without a plan of campaign.

If, as I think is now generally conceded, a National Planning Policy is urgently required, steps should at once be taken to form a National Planning Board. The Board should, in my view, consist of representatives of all the chief interests concerned; it is impracticable to set out here an exhaustive list, but it will serve to indicate what I have in mind to mention the following: industry, agriculture, commerce, transport, power distribution and public utility services, housing, open spaces, landowners and local authorities.

The National Planning Board could be either an advisory body, as I originally contemplated, or an executive body endowed with the requisite powers not merely to frame a policy but to see that the policy is effectively put into operation through the agency of Regional Committees and Local Authorities. Experience has shown that while advisory planning committees have performed a very useful function they have undoubtedly suffered from a lack of executive powers. On the whole, therefore, I favour an executive National Planning Board. The main thing, however, is that the Board should be constituted as soon and on as broad a basis as possible.

F. LONGSTRETH THOMPSON

SIR,—The Building Industries National Council, so ably described last month in the New Year issue of the JOURNAL, is probably one of the most stimulating facts in the industrial world today. Together with the Central Electricity Board, it marks the beginning of a British Plan which, rightly understood, will effect great changes in our standards of living and also in the whole tone of our industrial relations, with incalculable benefit to both.

This may sound extravagant, but I think it will bear examination. It is the proposed National Planning Board that is so far-reaching. It is now suggested—I believe for the first time in history—that the Building Industry itself shall take a hand, not only in the execution, but also in the planning of a great building programme on the finest possible lines. The Industry itself is to mobilize, for the enrichment of the community, all those vast reserves of technical knowledge, equipment and skill that are at present only partly used. The Industry itself is to create a planning authority—a central Development Board that will turn all this potential wealth into real wealth—the size of the programme being limited only by the available man-power.

It is a very great and unforgettable conception. But as you very rightly observe, it cannot stop there. "Planning for the Building Industry means planning for all industries." In pushing forward our National Planning Board, therefore, we must regard it as a nucleus of something even greater—a National Development Board that will apply the same principle over an ever-widening field and convert what we now call Unemployment Benefit into Reserve Pay with Training. A National Industrial Reserve of Man-power, with adequate pay and free training, enrolled voluntarily by a National Development Board, responsible to organized industry, is, I believe, the essential background that will lift the fear of unemployment and make swift development possible.

So long as that fear remains the trade unions will very rightly hesitate to double or treble their membership. Its removal, however, will not only make this possible but will do much to make trade unionism into an even greater constructive force than it is today.

The cost of Reserve Pay can be met, as the " Dole " is now, partly by a levy on earnings and partly by State subvention, but I believe it will convert a heavy tax into a most remunerative investment. It is urgently overdue and the coming review of the whole question of unemployment insurance makes it most opportune.

One vital point remains—the source of Development Finance. We shall probably be told that loans will not meet the case because our reserves of capital are insufficient to employ our man-power. I do not think this should deter us. Our National Development Board will soon realize that the creation of new wealth through the utilization of Reserve Man-power can very fairly be met by the issue of new currency in exchange for it—with a ten-year sinking fund to cancel it. This is only a modern adaptation of the famous Guernsey plan of a century ago. I believe that with courageous leadership something on these lines would now be possible.

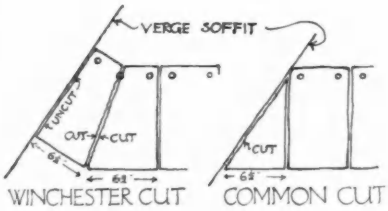
It is not the first time that the Building Industry has given a great lead—and I do not think it will be the last.

MALCOLM SPARKES

The Winchester Cut

SIR,—If your correspondent, Mr. Fagg, likes to refer to my book, *Little Things that Matter*, he will find therein what I hope is a clear description of the Winchester Cut, with reasons for its occurrence and precise directions for application. Even earlier, in an article in THE ARCHITECTS' JOURNAL some years before the war, I described this practice, which is virtually confined to Winchester in old work, but is now embodied in general good practice in tile-hanging.

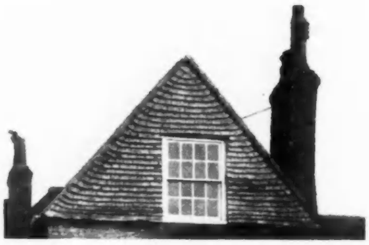
To anyone not anxious to pursue the matter further it may be briefly described as a system which, by cutting *two* tiles in each course running out beneath a verge so as to retain one nail hole, gives each tile positive fixing in place of the common alternative in which the last tile against the verge consists of a triangular piece which can only be fixed by adhesion to cement.



The tipped-up course-lines produced also make an agreeable finish. The enclosed rough sketches may make the matter plain.

EDWIN GUNN

SIR,—In reply to the enquiry in your current issue by Mr. Ernest W. Fagg, asking what is the " Winchester Cut," I enclose a photograph of a weather-tiled gable in Southgate Street, Winchester, which illustrates this treatment. This illustration is drawn from my book on *Building Craftsmanship in Brick, Tile and in Stone Slates*. But I think the first publication of the method was by Mr. E. S. Gunn in *Little Things that Matter to Those who Build*. In both these works are many devices not to be found in textbooks, most of which merely repeat the bad details of forty years ago.



NATHANIEL LLOYD

Economy

SIR,—Yesterday I had to spend some time in the train, so popped Cobbett's *Cottage Economy* into my pocket to read during the journey. This, as you know, was written in 1821, when times were bad, and economy much to the fore. In the Introduction Cobbett says :

> The word *Economy*, like a great many others has, in its application, been very much abused. It is generally used as if it meant parsimony, stinginess, or niggardliness ; and, at best, merely the refraining from expending money. Hence misers and close-fisted men disguise their propensity and conduct under the name *Economy*; whereas the most liberal disposition, a disposition precisely the contrary of that of the miser, is perfectly consistent with economy. Economy means *management*, and nothing more.

Now that is first-rate stuff, but unfortunately it does not hold much hope for us, because we are, as a nation, parsimonious, stingy and niggardly, and we have not the foggiest idea of what is meant by management or planning. We can cut shillings off wages, and reduce the spending power of the people. We can destroy Carlton House Terrace; but we cannot make any plan for its general rebuilding—and the Terrace is only one example.

In last week's JOURNAL you quote Prof. Reilly as having stated that " Liverpool, as an orderly, efficient town, is a disgrace to England, second only to Manchester," and this notwithstanding the fact that they have a first-rate Director of Housing. Unfortunately this gentleman deals with Management, or Planning, and the City Fathers of Liverpool apparently do not know the meaning of the word.

Which brings me to the pet bee which inhabits my bonnet—Education, and not the Education of the Architect, but the Education of the client. I think you, with your Carlton House Terrace campaign, have done more in a few months in the way of educating the public in architectural principles than has been achieved in many past years. I hope you will continue.

C. H. B. QUENNELL

Information Sheets

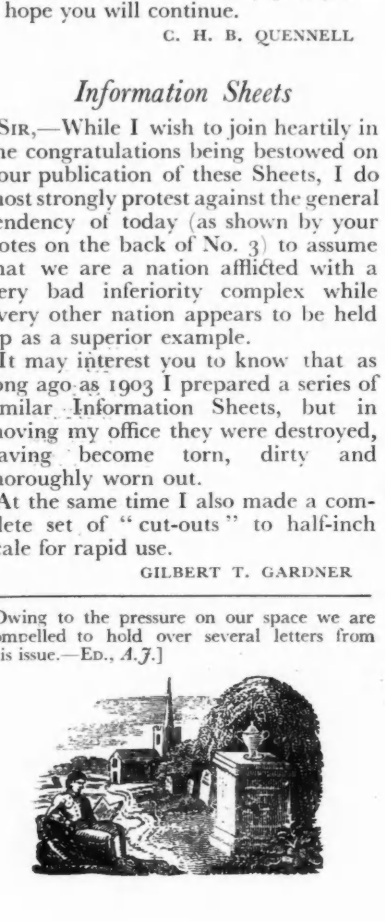
SIR,—While I wish to join heartily in the congratulations being bestowed on your publication of these Sheets, I do most strongly protest against the general tendency of today (as shown by your notes on the back of No. 3) to assume that we are a nation afflicted with a very bad inferiority complex while every other nation appears to be held up as a superior example.

It may interest you to know that as long ago as 1903 I prepared a series of similar Information Sheets, but in moving my office they were destroyed, having become torn, dirty and thoroughly worn out.

At the same time I also made a complete set of " cut-outs " to half-inch scale for rapid use.

GILBERT T. GARDNER

[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]



THE INAUGURAL MEETING OF THE COUNCIL WAS HELD ON FEB. 9

THE BUILDING INDUSTRIES *NATIONAL COUNCIL*

A CALL FOR ACTION

[By Dr. William A. Robson]

The establishment of the Building Industries National Council and the proposal to set up a National Housing Board indicate that the Building Industry is in process of developing a sense of social responsibility and becoming aware of its great importance in the scheme of national affairs. This is an event of very considerable significance not merely to the Industry itself, but to the whole community.

A COMPARISON WITH THE MEDICAL PROFESSION

A CERTAIN comparison may be drawn with the Building Industry and the Medical Profession. The Medical Profession grew up during long centuries on the basis of a series of isolated transactions between the individual consumer—the patient—and the private practitioner. With the rise of preventive medicine the Medical Profession and the suppliers of drugs and similar commodities came to participate in a great collectively-provided public health service, and the outlook and conscience of the Medical Profession has to a considerable extent become transformed.

It would be a hypocritical evasion of an obvious fact not to regret that the Building Industry did not become more aware of its creative opportunities and ultimate responsibilities at an earlier date, before the policy of contractionism from which we are now suffering, was put into operation in all its full disastrous force. I say frankly that it is an infinite pity that during the piping times of the past decade architects and builders and manufacturers of materials should have been content to accept orders for a couple of million houses, built largely out of public funds, and put the profits in their pockets, without any real attempt to direct creatively this immense public effort. It may be said that it was not their business to do so; but it was certainly as much their business then as it is now, assuming, as I do, that the present movement has wider and higher objects than the restoration of prosperity to the Industry.

PLANNING AND EXECUTION: THE DISTINCTION

So much for the past. Now as to the present and the future. The first thing which I suggest requires consideration is the desirability of recognizing the distinction between planning or designing on the one hand and execution or operation on the other. The architect's profession is a monument to that distinction.

A great deal of the success of the National Electricity Scheme is due to the fact that there are two distinct but co-ordinated bodies charged with these separate functions: the Electricity Commission draws up the schemes while the Central Electricity Board carries the schemes into operation after it has adopted them. There is an excellent proposal on foot that a National Housing Board should be set up as a public service corporation to co-ordinate and promote the building of houses of certain kinds and the reconditioning or improvement of others, and to undertake similar tasks. This project should not be allowed to obscure or to interfere with the separate but related question of establishing a National Planning Board or Commission. The functions of the two bodies do not overlap; they are complementary.

TEN MISDIRECTED YEARS

Anyone who looks at the broad results of our industrial and housing development of the past ten years can see how absurdly misdirected, or perhaps one should say undirected, the whole thing has been in the larger sense. At least three of our most important industrial areas have been declining to the point of becoming almost derelict—Lancashire, the North-East coast, and South Wales—and, instead of endeavouring to reconstruct those areas so as to adapt them and make them more attractive to new industries, we have virtually accepted the assumption that where a town is dependant on a certain industry, such as coal or cotton, and that industry fails, the town should be abandoned and the whole population permitted or expected to migrate elsewhere.

In consequence, we have on the one hand the spectacle of the frightful waste involved in abandoning the capital equipment of the older industries in these areas; of ceasing to make proper use of the roads, houses, schools, hospitals and other social institutions in these areas; of allowing industry to wander away from districts which are magnificently equipped with regard to power, fuel, transport, coal supplies, access to the sea, skilled and intelligent workpeople of both sexes.

On the other hand we are confronted with the Morris Motor Works destroying the amenities of the most beautiful city in England; with new factories employing 150,000 persons (involving a population of 400,000) being set up in the London region and intensifying the fantastic congestion of population in and round the Metropolis; with vast areas of the countryside in the South being more or less spoilt by the setting up of new industries in totally undeveloped areas.

Of course, the individual manufacturer or *entrepreneur* may claim that it is cheaper for him to plant a factory in the middle of a field and then to demand from the local authorities housing for his workers, roads for his lorries, schools for the children of his workers, hospitals, public utilities and all the rest rather than to go to an area where these facilities already exist. It may be cheaper for him, but that is simply because the social cost involved by such a maldistribution of resources and efforts is borne by a large number of other persons—ratepayers and taxpayers. The essence of planning on a national scale is, while retaining competition, to get social costs of this kind introduced in some way or other into the individual costs of the particular enterprise which incurs them. The great conflict which has been going on between the Railways and the Motor Transport Industry in this and other countries, resolves itself at bottom into a claim by the railways—largely recognized by the Salter Report—that their competitors on the roads shall be made to bear a large share of the costs involved in providing and maintaining the highways, which have previously been borne by the community at large.

THE NATIONAL SCOPE OF HOUSING

Readers of THE ARCHITECTS' JOURNAL may think that I am wandering a long way away from the question which is of immediate interest to them, namely, the setting up of a National Board for the planning or organization of housing activities. But the point I am seeking to make is that it is absurd and futile to attempt to consider housing as an isolated service.

Any plan that is worth the paper it is written on must have regard to the possible or probable future trends of industry. It must consider housing in relation to the essentially connected services of transport, highways and public utilities.

These four services are indeed the foundations on which a national plan ought to rest, for they are the links in the chain which binds together the home and the place of work. Again, since housing, on its residential side, concerns the home, that gives rise to a series of considerations relating to social services centreing round the family, such as public health, education and civic amenities. These in turn are of definite concern to the Building Industry in that they involve hospitals, sanitoria, schools, colleges, public libraries and so forth. One could enlarge upon this method of approach at considerable length, but I am only concerned to emphasize the necessity, on the planning side, of considering housing in relation to all the other manifold interests and activities with which it is indissolubly connected.

A planning body must consist, accordingly, to a considerable extent of persons who are able and willing to look at these interlocking activities with " a single eye " ; the nearest approach we have at present to a comprehensive outlook is to be found in the more progressive Local Authorities, save that their concern is, as the name implies, local rather than national. Despite this serious limitation of scale I suggest that those who are concerned in the matter should very definitely endeavour to bring the local government element into active co-operation. Local Authorities have their defects, but they do not suffer from the " compartmentalism " of the Central Government Departments.

THE NATIONAL HOUSING BOARD'S FIRST TASKS

When one comes to carrying the plan into operation on its housing side, then will come the time for the specialization and predominance of the Building Industry. It will be an excellent thing if the National Housing Board is set up at an early stage and commences some of the obvious and inevitable tasks which it could undertake. There is no need to wait for the formulation of a complete plan.

When the Planning Commission has indicated large *new* developments which depend upon comprehensive planning the Board will be there with, one hopes, a record of good work already achieved, ready to take up its more responsible task.

THE COUNCIL'S INAUGURAL MEETING

A COMPREHENSIVE ORGANIZATION

THE inaugural meeting of the First Members of the Building Industries National Council was held on Thursday afternoon last at the Royal Institute of British Architects under the presidency of Sir Raymond Unwin, P.R.I.B.A.

The First Members who have been appointed by the respective associated bodies are :—

Royal Institute of British Architects
Sir Raymond Unwin,
Sydney Tatchell,
Howard Robertson,
Maurice E. Webb.

Chartered Surveyors' Institution
J. M. Theobald, Oswald Healing,
E. C. Harris, C. H. Bedells.

National Federation of Building Trades Operatives
T. Barron, J. W. Stephenson,
G. Elmer, R. Coppock.

National Federation of Building Trades Employers
J. H. Barker, H. T. Holloway,
W. H. Forsdike, I. Ernest Jones.

Reinforced Concrete Association
R. Chate.

Building Materials Manufacturers' and Suppliers' Committee
Halliday, C. Rogers,
Lt.-Colonel C. W. D. Rowe,
H. J. C. Johnston.

The constitution, as formally drafted by Counsel, was submitted by Mr. Sydney Tatchell, V.-P.R.I.B.A. (Chairman of the Organization and Drafting Committee), and was adopted unanimously.

In proposing its adoption, Mr. Tatchell outlined the objects and functions of the Council as follows :—

> The objects of the council shall be to initiate, supervize and provide a medium for co-operative action and common effort on the part of appropriate bodies and organizations, which is likely to conduce to the advancement and welfare of the Building and Constructional Group of Industries generally, and as a whole, for the purpose of maintaining the industry as an efficient unit in the economic structure of the country, capable of providing employment and a means of livelihood for a substantial part of the population.

The constitution was unanimously adopted, and the following Office Bearers of the Council were subsequently appointed :—

President
Sir Raymond Unwin.

Senior Vice-President
Sydney Tatchell.

Junior Vice-Presidents
J. H. Barker, T. Barron, J.P.,
H. J. C. Johnston, Maurice E. Webb.

Hon. Secretary
I. Ernest Jones.

Secretary
H. B. Bryant.

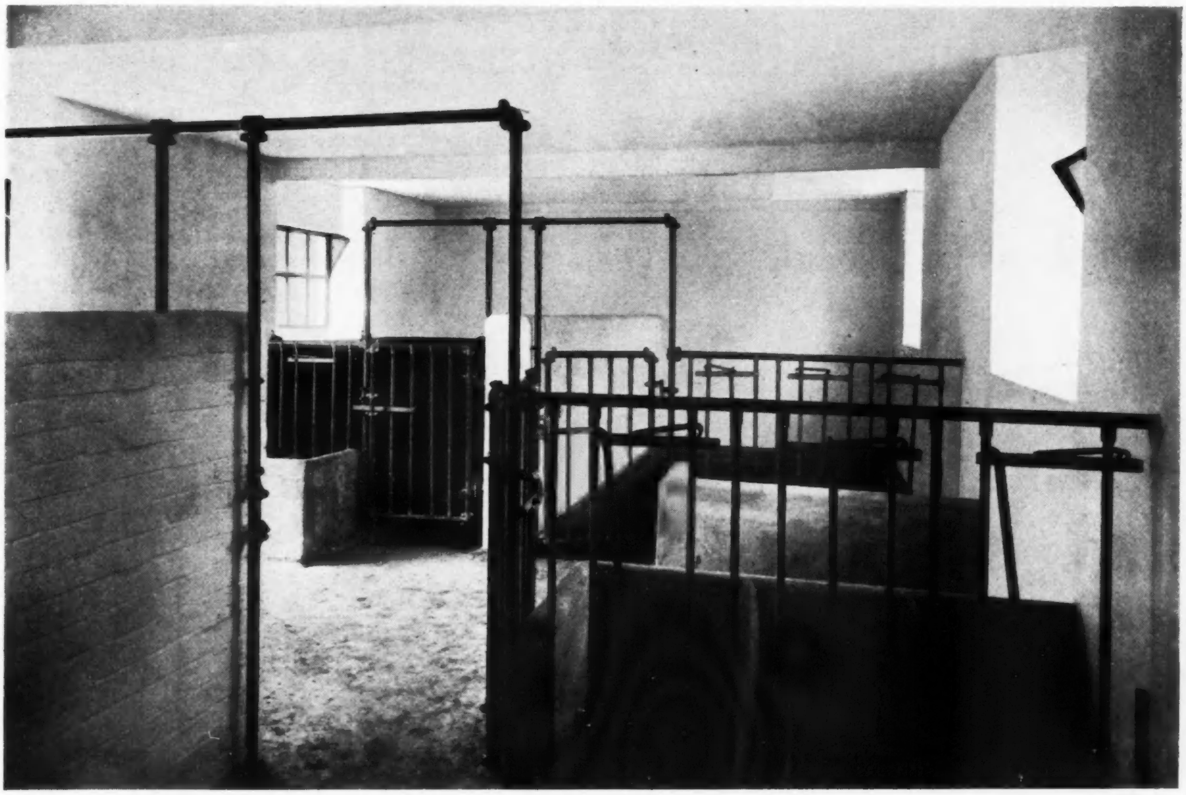
Patrons :
Lord Amulree, K.C. ; and Alfred C. Bossom, M.P., F.R.I.B.A., were invited and agreed to become Patrons of the Council.

Sir Raymond Unwin, addressing the Council as its first President, said that the occasion of the bringing into being of the Council was a memorable one, and one that might well become important in the industrial history of the country.

The Council would be the instrument not only of the industry, but of the nation as a whole. The effective co-ordination of industrial effort over the widest possible field was probably the nation's greatest need at the present time.

There were tremendous possibilities before the industry, chiefly that of industrial reconstruction and the task of housing and slum clearance. These great tasks could only be undertaken to the best advantage by an industry united upon all matters of common interest, but with the numerous sections of the industry still free to develop themselves upon the lines of progressive advance in technique, science and practice.

MILK FARM: BY THEOBALD AND SKURRAY



The new owner of The Home Farm, Leweston Manor, Sherborne, Dorset, was anxious to house his pedigree herd of Guernsey cattle there, but as is so often the case, the old farm buildings were found totally unfit for a modern dairy herd, and it was decided to adapt the existing buildings for the production of grade "A" milk.

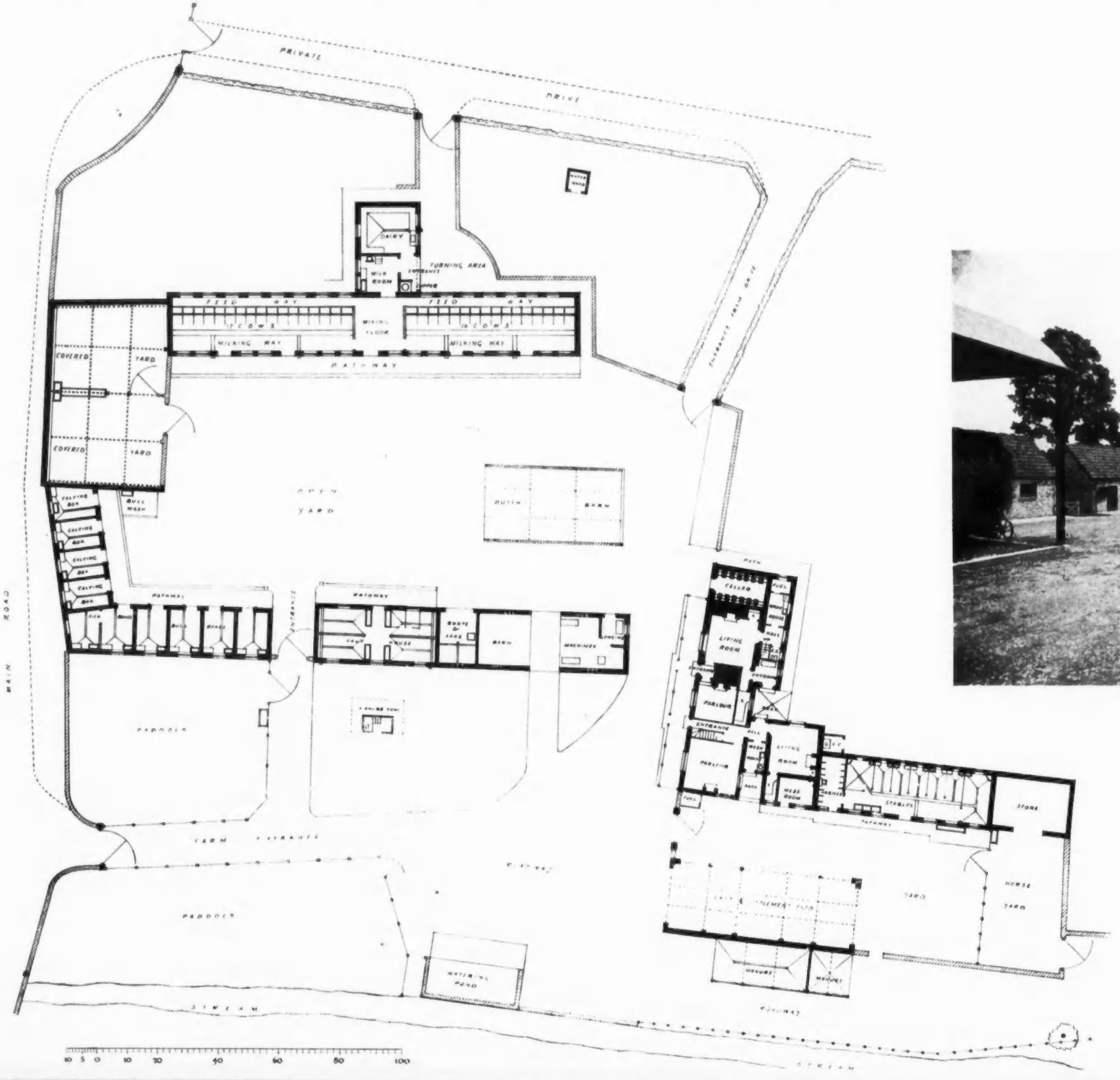
A new cow byre was built on the site of the old one, to house 33 cows, and off this the milk room and dairy were planned. The old yard was cleared of all rubbish, manure, pig-styes and stacks, and laid to proper falls, surfaced with granite and granite chippings. A covered yard, for stock during the winter, is situated at one end; opposite the cow house run a line of calving boxes, calf houses and bull boxes. The old stables have been converted into a calf house at one end and a machine and food-mixing department at the other. All liquid manure is collected from the cow byre and boxes and taken by a drainage system to the manure tank. From this tank it is pumped out and taken on the land for manuring purposes. A covered manure yard has also been provided behind the cart shed for all solid manure; here the manure "makes" and rots for future use on the land. Under the yard is a tank in which is collected the liquid from the rotting manure. The old barn behind the farmhouse has been converted into stables, and a new cart and implement shed erected opposite. Small paddocks and yards have been made for exercising the animals and for showing purposes.

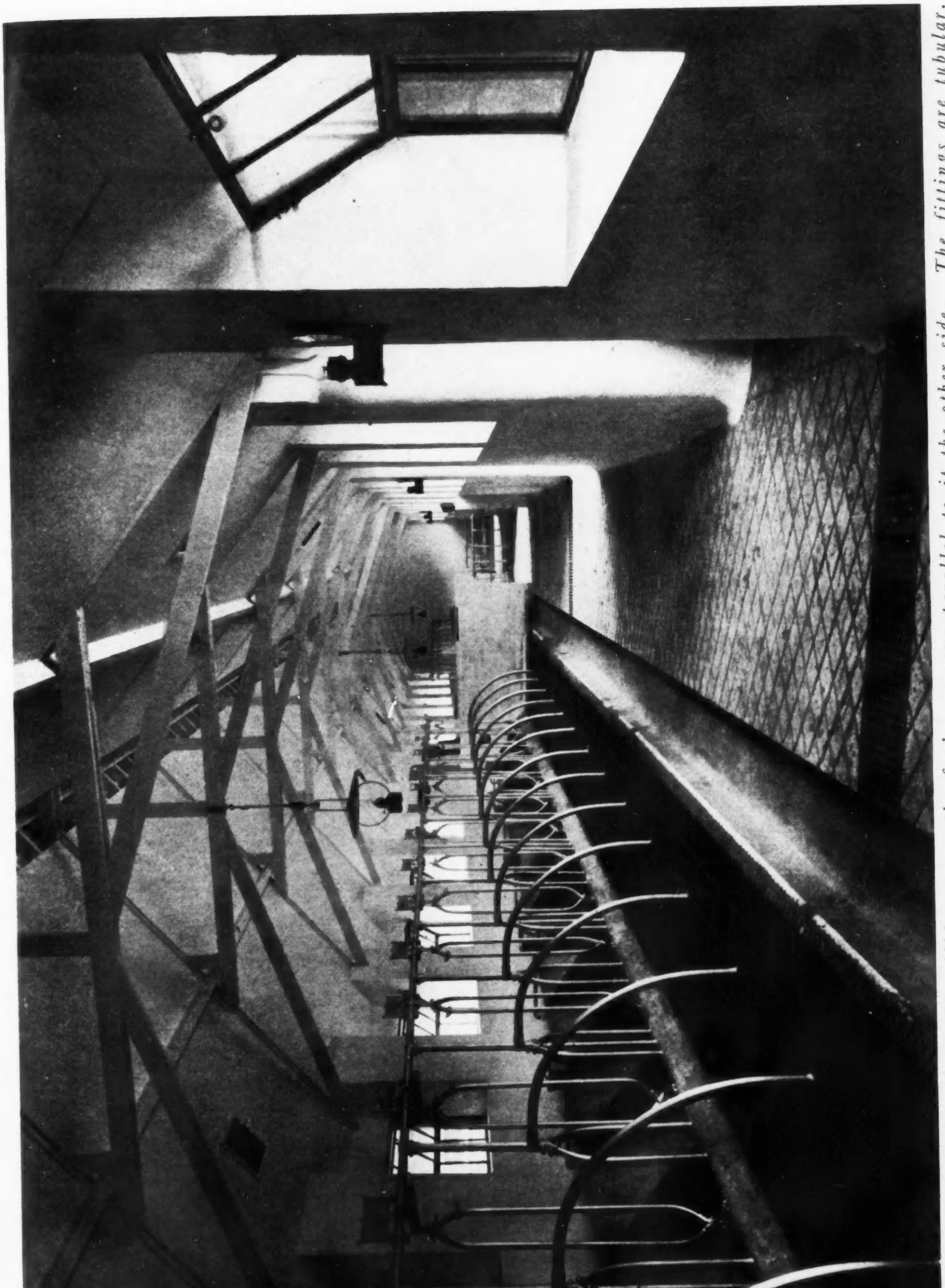
By having the cows entirely separate from the horses, the milk taken away by a drive separate from that leading to the main buildings, and by keeping the bulls and calving cows separate, efficiency is added to the farm. The cow house is fitted up with tubular fittings and collars, with automatic drinking bowls, while a special cork and bitumen brick has been used for the standing room. This brick has been found very beneficial, being cool in summer and warm in winter. It has none of the sweating effects of concrete which are so harmful to the cows' udders. Tubular fittings have also been employed in the calf house, illustrated above, which has been divided into general small pens for calves of different ages. The boxes have ordinary mangers and low hay-racks at opposite corners and the floors are concrete, grooved and laid to fall with a central channel. Concrete has been used in this instance as an ample bed of straw is always provided.

"GRADE A" MILK FARM AT SHERBORNE, DORSET: BY THEOBALD AND SKURRAY

THE HOME FARM, LEWESTON MANOR

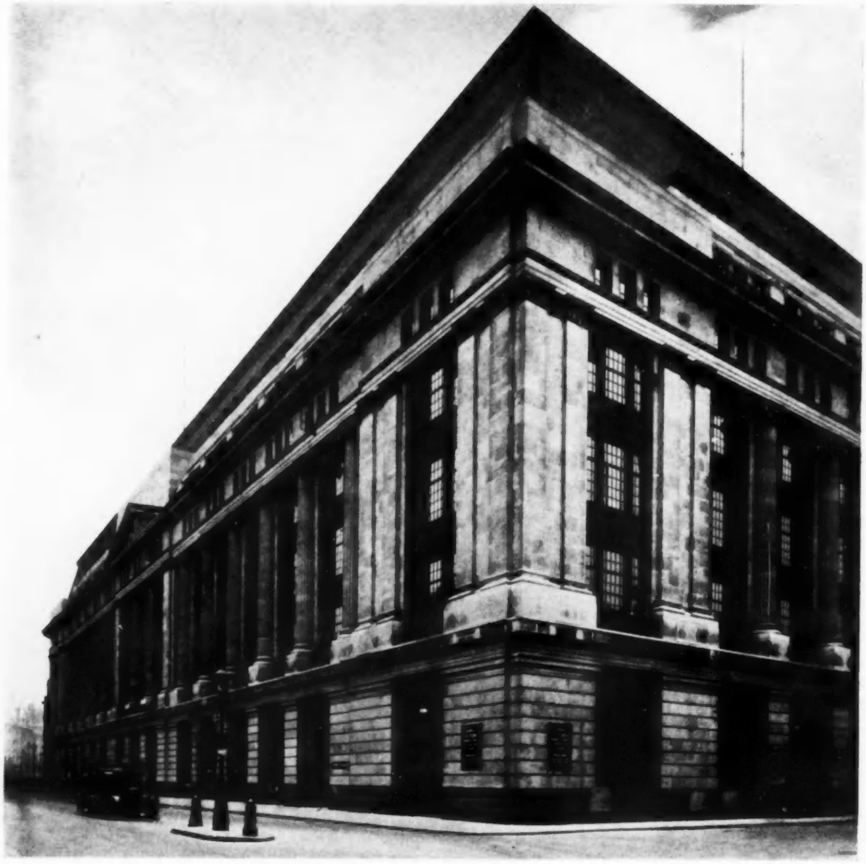
The above view is of the yard, taken from near the gateway of the entrance drive. On the right is the cow house, with, beyond, a divided covered yard. On the left is a corner of the Dutch barn, behind which are the ranges of bull boxes and calving boxes.

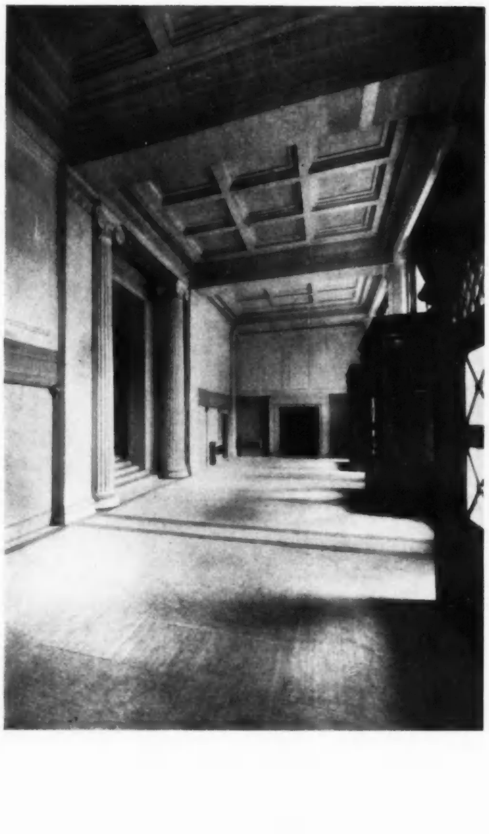

PRIVATE
DRIVE
ENTRANCE DRIVE
WATER
DAIRY
MILK ROOM
ENTRANCE
TURNING AREA
FEED WAY
17 COWS
MIXING FLOOR
16 COWS
MILKING WAY
PATHWAY
COVERED
YARD
BULL WASH
CALVING BOX
SICK
BULL BOXES
OPEN YARD
DUTCH BARN
ENTRANCE
CALF HOUSE
ROOTS & CAKE
BARN
MACHINES
ENGINE
PATH
CELLAR
FUEL
LIVING ROOM
ENTRANCE
PARLOUR
HALL
WASH HOUSE
BATH
MESS ROOM
W.C.
HARNESS
STABLES
STORE
YARD
HORSE YARD
IMPLEMENT SHED
MANURE
PADDOCK
FARM ENTRANCE
WATERING POND
MAIN ROAD
STREAM
10 5 0 10 20 40 60 80 100

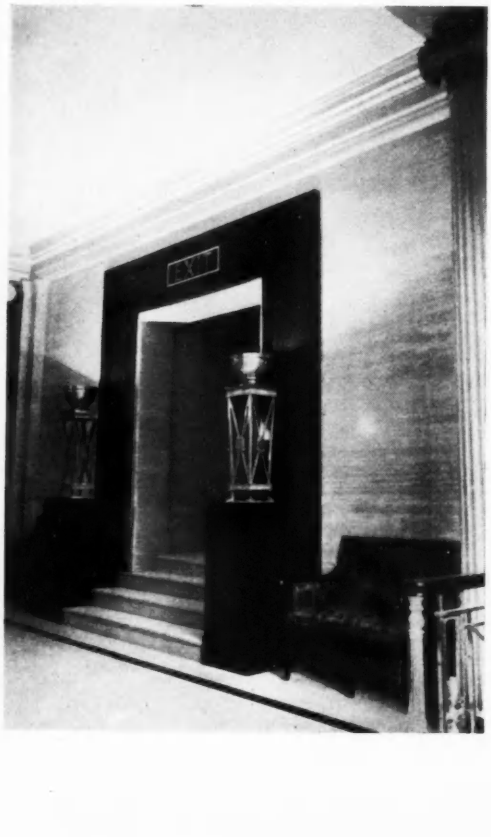


The interior of the cowhouse, from the milking way; the feed way runs parallel to it the other side. The fittings are tubular.

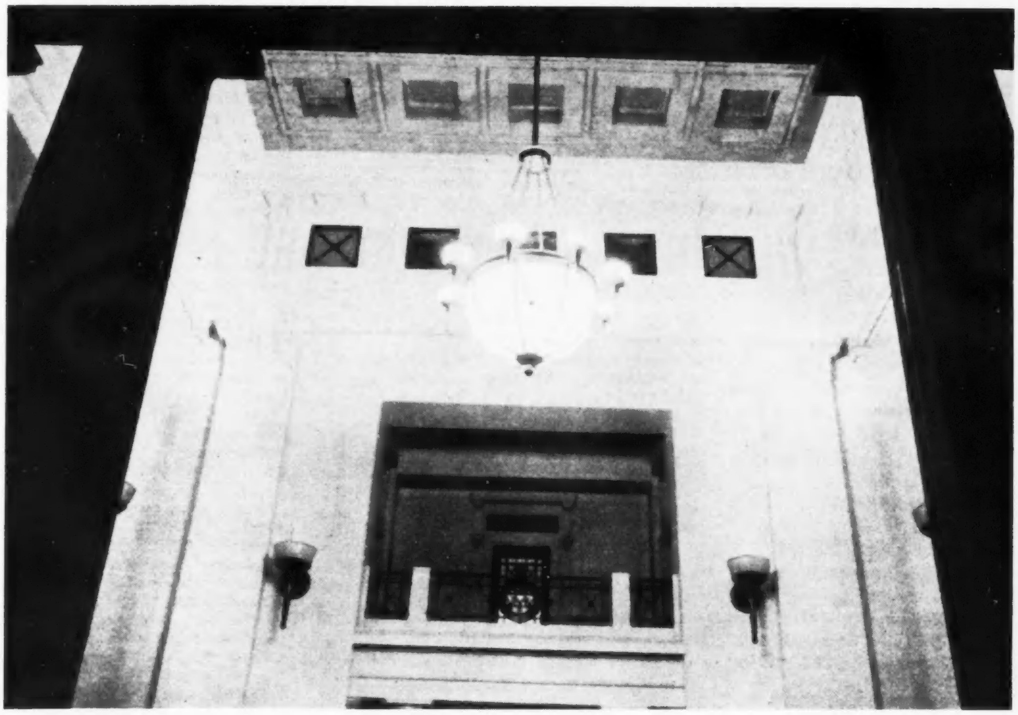
VICTORIA HOUSE, LONDON, W.C.:





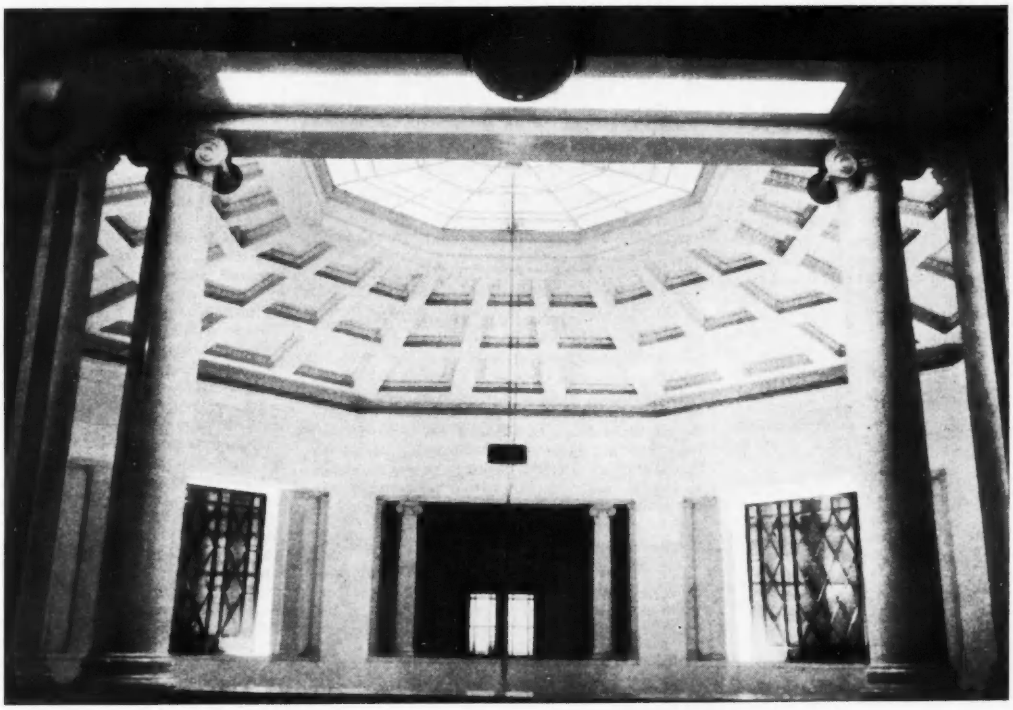


DESIGNED BY CHARLES W. LONG



This building was primarily designed to serve as headquarter offices for an insurance undertaking—the Liverpool Victoria Friendly Society—but it includes, as disclosed by the plans of the main and lower ground floors, reproduced in a supplement with this issue, facilities of a semi-social order; while, along the Southampton Row front run a series of shops on either side of the central entrance. This entrance appears in the photograph of the exterior on the facing page, below which are shown a view inside the main entrance vestibule, and an exit, in black marble, from one of the halls on the lower ground floor.

On this page are seen, in diminishing perspective, the upper portions of the public hall, with its ceiling of Siena marble, and of the octagonal hall in the claims department, with its ceiling coffered in plaster around the central top light.



THE PLANNING ACT AND THE COUNTRYSIDE

[By *PROFESSOR PATRICK ABERCROMBIE**]

I INTEND to put forward an actual example of a Country Planning Scheme ; and, without undue optimism, to attempt to show that a good deal can be done with present powers (i.e., The Town and Country Planning Act) so far as their application can be judged, without the Model Clauses before us.

IN THE COUNTY OF LOAMSHIRE

I have taken the county of Loamshire, which is familiar to us all, and is fairly typical, in that its problem is not mainly an urban one.

Furthermore it happens that the two chief towns in the county, Bulcaster and Colonelton, have already prepared preliminary statements under the 1925 Act (but with an eye to easy transference in one or two directions into the new Act) : Bulcaster being the historic county town, Roman-planned and mediæval-cathedraled, and Colonelton being the attractive residential asylum of elderly Anglo-Indians and others who are usually to be found in retirement playing golf by day and bridge by night, on a gravel subsoil. There is also a somewhat scattered manufacturing area, known from its chief centre, Churt, famous for its home-spun, which has decided to prepare a joint scheme ; these three contiguous areas, each including a good deal of open country, embrace what might be called the urban aspect of the country, and I am going to omit them from the picture except in so far as they affect the adjacent remainder of the county.

I am going to make, also, the assumption that under Clause 6 (2) (*b*) the whole of the county has been approved as suitable for a Planning Scheme. It might prove a useful subject of discussion as to what land was and what was not likely to satisfy the Minister under this clause : but as that seems to imply an intimate knowledge of the rural psychology of the Minister of Health, I do not feel capable of attempting it. I am further going to assume that a Planning Scheme is to be prepared by a joint committee consisting of the Urban Districts and the County Council, to whom the Rural Districts have relinquished their powers. The Rural District Councils, however, have been given direct representation through co-option, which also enables the Committee to have representatives of the Land Owners, Farmers, C.P.R.E., etc. In order also to make for simplicity of procedure, the whole of the county (with the exception of the three areas of Town Planning Schemes) is to be taken as a single scheme for the purpose of preparing rapidly and effectively a skeleton plan, which will direct and protect the whole area. The Committee earnestly hope the Ministry will not require 25 inch scale maps for such an outline scheme, the cost of these maps being about ten times as much as the cost of a similar area of freehold land. As regards roads, I am hardly going to mention them. The County Surveyor, an able engineer and a tactful man, has these well in hand ; his epoch of construction being temporarily suspended, he is proposing to safeguard the routes of several byepasses and a major river crossing by means of this Country Planning Scheme. In Loamshire, too, there is no antagonism between the one county borough and the county : I hope there is as much co-operation in every county of England and Wales.

FIVE GENERAL PRINCIPLES

It is possible to distinguish, among a mass of suggestions, five broad methods for dealing with the major country problem, of where to build and where to farm (which I prefer to the more usual "where to build and where to refrain from building"). The real difficulty, as we all know, is one of ownership : the plan, to be efficient, cannot primarily concern itself with the freaks of ownership.

The *first method* is therefore *Land Nationalization*, a simple and heroic measure which some would carry out by a stroke of the pen.

The *second method* is the *German* one by which no one has a right to build unless he is given a permit to do so ; by this means land is released for building in suitable blocks as planning and public services are ready for it.

The *third* is known as the *Pooling* of increment value. The basis is that the owners should co-operate in a mutual arrangement to the effect that the possessor of the land who is deprived of building value shall be reimbursed from the receipts of the land that is developed.

The *fourth method* is founded upon the principle of *Compensation and Betterment* contained in all the Town Planning Acts that have been in operation in this country : but it aims at a more positive application. It is suggested that when the plan is made everyone whose land is deprived of building should be compensated from a fund, kept strictly for local purposes : this fund is collected on the *realization* of the increased value on the building areas : in other words when land is ripe for development and can be sold by the owner for building, it must pay a betterment tax.

The *fifth* has been called the *Temporary Agricultural Reservation Method* : by this, development is only allowed to proceed upon certain specified conditions : the method does not crystallize out into a *plan* as soon as in the last two methods, but it seeks to obtain control before it is known what the detailed planning requirements will be, and to provide for growth by stages according as a case is made out for the *need* for that growth. It is form of time zoning and is a mild approach towards the German permissive method.

As this method appears in the Town and Country Planning Act under Clause 15 and 16, the reservation is of a negative sort—it is merely pending the change into building land and a transference to normal building densities of portions at a time or even of the whole. Before this takes place, individual building may be allowed ; this is not to be refused unless the authority is convinced upon three heads, that (i) equally suitable and reasonable (in price) land is obtainable elsewhere ; (ii) the building would not involve danger or injury to health by reason of lack of roads, sewers, water supply or any public services, and that the provision of the services would be premature or likely to involve excessive expenditure of public money ; (iii) that the operations would be likely seriously to injure the amenity of the locality. In other words it is for the Public Authority to make out a case *against* building and not for the builder to make out his case *for* it.

Alas, there is one ominous phrase in Clause 15 which casts a blight over this expansive scene : every third year the responsible authority must take into consideration the desirability of making a General Development Order for *all the land* in this temporary agricultural reservation ! This is temporary with a vengeance : every remote acre of Loamshire to be solemnly revised every third year.

FOUR MAIN AREAS

It is proposed, therefore, to divide up the County of Loamshire into four main types of area, in addition, of course, to the three large planning schemes which have been already mentioned. These four areas, be it noted, represent a very simple type of zoning :

(1) A General Building Zone.

(2) A Permanently Building-prohibited Reservation.

(3) A Temporary Agricultural Reservation.

(4) An Agricultural Zone.

Of these, the first and second represent the two extremes ; the third and fourth are the intermediates.

GENERAL BUILDING ZONES

In considering a county such as this it will be found that the building zones group themselves under four headings. In the first place there are two small towns, Casterbury and Tellbridge, which at any moment may require to have detailed planning schemes prepared for them. It is, however, considered to be an advantage to include them under the general regional powers. To begin with, in one of them most of the ownership is in the hands of two people both looking after their estates and developing them with great care. This happy state of affairs however, might at any moment cease through, shall we say, the death of one of the owners, so that the Regional authority must be prepared for more detailed control. Here is a case for a supplementary scheme to be prepared in the future under Section 9.

Next in importance to these two towns, Casterbury and Tellbridge, there are a number of what might be called market villages. These form each the little sun of a local constellation of satellite farming villages, and are consequently more likely to grow. Each of them has not yet its cinema, but probably it soon will have, and if there is a regeneration of rural life, here are foci for definite expansion. They may also exhibit some satellite growth from the towns or the larger cities of the Midlands.

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* *Summary of some points made in a paper entitled "The Town and Country Planning Act and the Countryside," read by the author at the meeting of the Town Planning Institute at Caxton Hall, S.W., on February* 10.

There are next the villages, which in this particular region are highly-grouped entities, in the north-west portion, and rather more straggling and scattered south-east of the river. As a result of a very careful scrutiny, some of these have been found suitable for growth, others less so, and some quite undesirable. It is largely a question of situation, cheapness in the provision of water and drainage, etc. They have, consequently, been separated into two rough groups ; those which are shown as developing areas, and those which are left in a static condition.

The market villages and the developing villages are given an area, including their existing size, of the building zone, with a margin sufficient for five years' growth. Building on a general regionally agreed density will be permitted in these building zones, the buildings, of course, having to conform to normal requirements as to lay-out and appearance.

TEMPORARY AGRICULTURAL RESERVATIONS

Those localities which appear to require more elbow room for their growth, are given a considerable extent of temporary agricultural reservation surrounding them. This refers more particularly to the towns Casterbury and Tellbridge, and to the market villages. In selecting these temporary reservations, care has been taken to see that they can eventually be provided with services.

In one part of the area several villages appear rather close together, strung along a main road. It is a debatable question as to whether they should be connected up with this T.A.R. Fortunately, most of the main roads hereabouts, having a strong Roman origin, are very free from having villages upon them, but there are other parts of the country where the reverse is the case. The T.A.R., unless it is very thoroughly administered, gives a hint of an ultimate complete building up of the road frontage, even though it does definitely indicate that this will be allowed by beginning at the village ends first.

I leave this fascinating subject of the new T.A.R., which is one of the most interesting and valuable features of the new Act, and proceed to the opposite extreme, namely, land which is considered to be unsuitable for building, and so is permanently reserved.

PERMANENTLY BUILDING-PROHIBITED RESERVATIONS

Here two types of area have been scheduled ; low lying land and a small area which is so elevated that it would be impossible to supply it with water.

AGRICULTURAL ZONES

There now remains the largest area of land in the whole scheme to be dealt with, which for the moment is called the Agricultural Zone, and which lies, therefore, between the extremes of the building land, and the T.A.R., which under certain circumstances may be converted into building land, and on the other hand, the Permanent Prohibited Reservation. This is the most difficult problem before the rural planner at the moment.

This area represents a zone under a permanent restriction (not a prohibition—the new Act includes both) and the utmost of this restricted building that should be allowed, would be, to use Mr. Pepler's words, " sufficiently sparse in character, that danger or injury to health would not be involved by reason of the lack of services." At present the Minister, under the 1925 *Town* Planning Act, has limited a general density for such an area to one house in three acres, regarding this as a minimum. Under a Town and *Country* Planning Act, with a definite power for prohibiting building operations (Section 12), and withholding compensation for such, Section 19 (1) (*e*)* under very wide conditions, the Minister will find himself in a strong position to allow a much lower average density, especially as under the T.A.R., wide areas have been scheduled for possible development. In a word, I maintain that there is very little building value left in this agricultural zone when it has been properly worked over, so that suitable building sites are zoned apart from it.

I could have wished that Clause 16 was applicable not only to T.A.R., but to a permanent restricted area, for it seems to me that the machinery of this clause is quite admirable, if firmly administered. It allows for any type of individual building in any place to be considered on its real merits : hardship is avoided by the necessity of the Local Authority satisfying themselves that other land is available on reasonable terms if they refuse an application and the public have the excellent safeguards of avoiding excessive expenditure or premature provision of services, and also injury to local amenity.

A very simple amendment of the Act could make this clause applicable for permanent restricted land ; but, not having this amendment, we are thrown back upon devising some means of arranging for the use of this overall low density, and possibly some additional building, which will still remain so sparse as to come within Mr. Pepler's definition, and also, so as not to create ribbon development.

ARCHITECTURAL GUIDANCE

If the new Act enables the whole area of the scheme to come under adequate architectural guidance, it will have justified itself so far as Loamshire is concerned on that account alone : of such importance is the maintenance of a standard of architectural good manners in a country district and the suppression of hooliganism. For where a great deal of growth is not anticipated, there is all the more reason for concentrating upon the design and materials of each building which may either stand by itself and dominate a wide area or be fitted into an existing group—a village, which has perhaps so far satisfactorily absorbed and maintained examples of the varying types of design practised during 800 years.

It is not so much the extent or technical method of control that the new Act has affected, as the legal administrative machinery ; in the first place by extending (as we believe) the scope of the Act to all types of land and in the second by actually and specifically mentioning the " regulation of Design and Exterior Appearance of buildings " (12) (1) (*c*) as matters to be included in the provisions of a scheme. Hitherto we have been working under the vague terms " amenity " and " character."

LAW REPORT

RIGHT TO DRAINAGE

Gosford Furnishing Co., Ltd. v. *Stone Bros. and Another.—King's Bench Division. Before Lord Wright*

LORD WRIGHT, sitting as an additional judge of the King's Bench Division, had before him an action by Gosford Furnishing Co., Ltd., of 165 Bow Road, against Messrs. Stone Bros., the owners of premises 167a Bow Road, adjoining plaintiff's premises, and Mr. W. Levy, his tenant, for a declaration that the plaintiffs were entitled to a free use of the drain leads from their premises through defendants' premises. The plaintiffs also sought an injunction restraining defendants from interfering with their use of the drain and they alleged trespass and nuisance and asked for damages.

Mr. Harold Simmons appeared for the plaintiffs, and Mr. G. W. Knowles for Stone Bros. Mr. Levy put in no defence.

Mr. Simmons said his case was that the defendants had obstructed his drain, with the result that water and noxious matter had percolated into his premises.

Mr. Knowles said his clients denied that they had obstructed the plaintiffs' drain. The defendants alleged that plaintiffs had used the drain without being entitled to do so and had failed to repair and empty the cess pit. They now counter-claimed for an injunction to restrain excessive use of the drain by the plaintiffs.

For the plaintiffs, evidence was given by an officer of the Poplar Borough Council that the drain was reconstructed in 1929, but it was obstructed in 1931, the obstruction being inside the defendants' premises, and being due to a pipe being run across the drain. The cess pit had been filled up.

For the defence, evidence was called to show that the drain had been completely blocked and that work had been done by the defendants to the drain.

His lordship, after hearing further evidence, gave judgment, and said it appeared that the defendants made a new drain which cut through the drain from the plaintiffs' premises, and that was the cause of all the trouble. Under these circumstances the plaintiffs were entitled to succeed against both defendants. In his view the defendants were also liable for damages for a quantity of water which collected in the plaintiffs' basement, and which he thought came from the premises of the defendants. He referred the question as to the assessment of damages to the official referee.

Dealing with the counter-claim, his lordship took the view that plaintiffs' use of the drain for rainwater had not been to the detriment of the defendants. He therefore awarded them nominal damages of 20 shillings.

Change of Address

Mr. F. E. Towndrow, A.R.I.B.A., Architect, has removed his office to 4 Essex Court, Middle Temple, E.C.4. Telephone : Central 2952.

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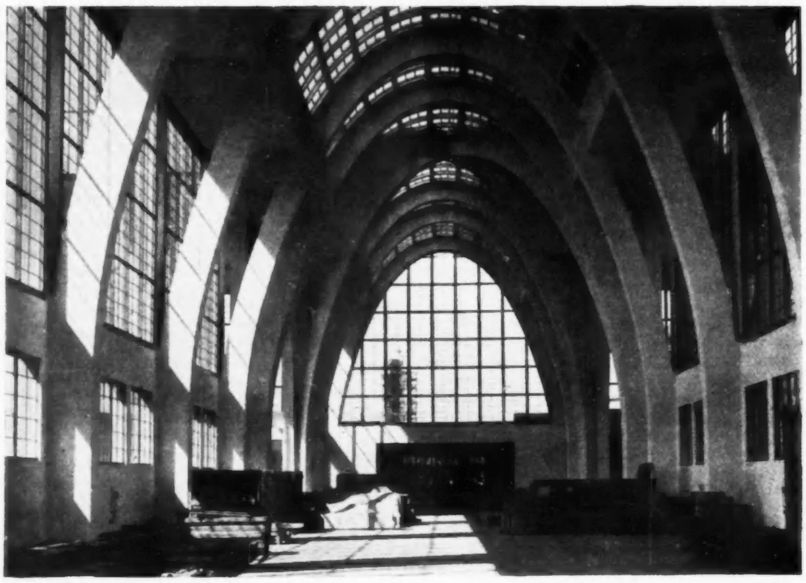
* *Fortunately (e) is not subject to any of the vexatious provisos that follow in this section.*

QUESTIONS THAT ARISE

Parabolic Arches

¶ A. B. writes : "*Would your expert please answer the following :—1 : Is there an (or what is the) equation for the curve of the arch or vault that exercises no lateral thrust ? 2 : Have the ellipsoidal arches of the Horticultural Hall, Westminster, and the Permanent Exhibition Buildings, Brünn, any peculiar properties ?*"

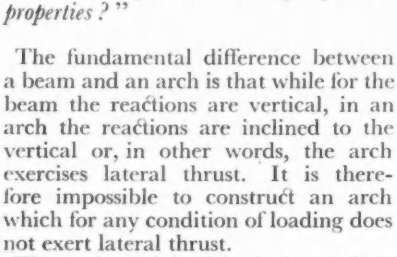


A typical example of parabolic arches : The Klavinho Palace at the Permanent Exhibition Buildings, Brünn. It is pointed out in the reply to a correspondent's query on this page that the particular advantage of this form of arch is that with uniform dead load over the whole of the span the line of thrust for the arch follows the centre line of the arch and there is therefore no bending moment on the arch.

The fundamental difference between a beam and an arch is that while for the beam the reactions are vertical, in an arch the reactions are inclined to the vertical or, in other words, the arch exercises lateral thrust. It is therefore impossible to construct an arch which for any condition of loading does not exert lateral thrust.

The arches of the Horticultural Hall and the Permanent Exhibition Buildings, Brünn, appear to be approximately parabolic in form and not ellipsoidal.

The particular advantage of this form of arch is that with uniform dead load over the whole of the span the line of thrust for the arch follows the centre line of the arch and there is, therefore, no bending moment on the arch. This can be most easily explained by reference to the figure which shows in diagrammatic form he forces acting at any section of an arch ring. P represents the thrust, which is generally inclined to the centre line of the arch and also acts at a point A which is not the centre of gravity of the section. Resolving this force in two directions, across the section and at right angles to it, we have two forces T and V. The force V is the shear across the section and is relatively unimportant. The effect of the force T is the same as that due to a direct thrust equal to T acting at the centre of gravity of the section, causing a uniform stress equal to T/A (where A is the area) over the whole section, and a bending moment of value $T \times e$ acting on the section (compare eccentric loading on stanchions). The maximum stress due to this moment will be Te/Z where Z is the modulus of the section. Therefore, the smaller the eccentricity e the smaller the maximum stress due to bending, and if the eccentricity becomes zero, i.e., the line of thrust coincides with the centre line of the section, the only stress on the section will be that due to the direct thrust T. Hence the advantage of the parabolic arch, although it must be realized that the above condition only holds for this type when it is loaded over the whole of its span with a uniform load, and that while this condition of loading is often the most important, it cannot be guaranteed to exist always, and in addition to possible lack of symmetry of loading the effect of wind pressure must also be considered.



When the load per foot increases from the centre of the span to the springing as, for example, in a bridge with solid filled spandrels, the line of thrust becomes more ellipsoidal than parabolic and for this condition the ellipsoidal form would be more economical.

W. E. J. B.

IN PARLIAMENT

The Housing Bill

ON the first day that the House of Commons reassembled after the Christmas Recess, an interesting discussion arose on the money resolution in connection with the Housing (Financial Provisions) Bill. This measure, it will be remembered, was read a second time last December.

Sir E. Hilton Young, the Minister of Health, in moving the resolution, said that it was the necessary preliminary to the scheme for the enlistment of the building societies in an effort to provide houses to let for the working classes. The scheme provided that a certain guarantee should be extended to the building societies. The guarantee would be in respect of the advances made by the societies in excess of their normal advances for building. Normally the amount advanced by a building society was 70 per cent. of the value of the building : that was to be raised under the present scheme to 90 per cent., and the liability for the 20 per cent. difference was to be guaranteed by the local authority, the Exchequer, and the building society at the rate of one-third each. This guarantee was being given to the building societies because they had large supplies of capital available, and the experience to use that capital in the most effective manner : also because they were making the advances for a period of 30 years at a rate of one-half per cent. below their normal rate, and, by extending their operations to new business, were incurring new risks.

The scheme provided a large step in advance towards meeting the demand for houses for wage-earners of the class just above the lowest paid. The tendency of the cost of building would be downwards by reason of the competition that would arise when private enterprise was freely at work. In order to provide for the transition period before the new system of building came into operation, the Ministry of Health would approve all *bona fide* building schemes that were advanced, a reasonable degree going through under the old subsidy arrangement. Moreover, local authorities would have full power to impose their own standards of housing for their own localities. The Ministry of Health would also maintain control by its power to approve the guarantee. He recognized that there might be anxiety lest there should be any recession from the accepted standard of housing as a national service. It was, therefore, his intention at a later stage to accept amendments relating to the size and density of houses which would have the effect of maintaining the present standard. This scheme for the enlistment of a vigorous effort on the part of private enterprise for meeting the nation's housing needs was the true long-range policy for providing employment in the building industry.

We stood at the beginning of a new epoch—the end of general subsidies and the beginning of subsidies concentrated on slum clearance. They should therefore review their armoury, and it was his intention at once to start the wheels of inquiry to make such a review. He intended to appoint a committee of his own Department as an essential step to focus knowledge, and he believed that he could find all the knowledge necessary among members of the House of Commons. The Committee would consider the question of public utility societies and the question of a housing corporation for the country as a whole—something in the nature of a super-public utility society. He proposed to include in the inquiry any possible addition in the powers of reconditioning, particularly compulsory purchase of houses by local authorities in order that they might be reconditioned. That was the only important power that they did not possess at present, and the inquiry would include the very essential detail of the price at which such houses should be purchased. The investigation might also be extended to the question of some more appropriate body than the local authority for holding houses when they had once been built. There ought also to be some investigation of alternative powers in default of local authorities. He would not exclude from the consideration of the Committee some extension of financial assistance from the Exchequer for methods of dealing with slums by reconditioning as well as by clearance. The investigation would not be allowed in any way to affect the powers local authorities had at present to deal with slums by the radical method of slum clearance. The inquiry must be prompt and practical, and its results would be put before the House as soon as possible.

Although, in the debate which followed, the Labour opposition vigorously attacked the Government's plans, the resolution was eventually carried by 236 votes to 38.

Slum Clearance

Mr. Emmott asked the Minister of Health whether the Government's programme for slum clearance was limited to 12,000 houses a year.

Sir Hilton Young said it was not. No limitation of the sort was imposed in the Government's programme for the clearance of slums. It was intended by the concentration of assistance from subsidies on slum clearance, and by encouraging the more active administration of the Act of 1930 by the responsible local authorities, to raise the rate of clearance as much as possible, without any arbitrary limitation. The figure of 12,000 houses a year was referred to by him as the estimated number for which, in the light of experience of the working of the Act, it was reasonable to make provision in the estimates for the coming year, which would be the first year of intensified effort to accelerate the rate of clearance. It was expected that after the first year the rate would be increased.

Adelphi Terrace

Mr. Lovat Fraser asked the First Commissioner of Works, if, in view of the intended destruction of Adelphi Terrace and the adjacent buildings, he would take steps to get these buildings scheduled for preservation as an ancient monument.

Mr. Ormesby-Gore said that, unfortunately, he did not think that this was a case in which his Department could take any action. The machinery provided by the Ancient Monuments Acts was not applicable to a group of buildings of this character.

OBITUARY

The late Mr. P. W. Barnett

It is with deep regret we record the premature death of Mr. Percy W. Barnett, A.R.I.B.A., chief assistant of the Building Research Station, Watford, which occurred recently, after a few days' illness, from influenza. His loss will be greatly felt by the architectural profession and the Building Research Station.

Born in 1895, Mr. Barnett was educated at the Hornsey County School, and also attended the Architectural School at the Northern Polytechnic. For a short period he was employed in the offices of Mr. John Murray, F.R.I.B.A. and when the war broke out he joined up and served until March, 1919.

After the war he attended the Bartlett School of Architecture, London University, and became associated for a short time with Mr. Alban A. H. Scott, F.R.I.B.A. In 1921, at the age of twenty-six years, he gained his Associateship of the Institute, and in the same year he was appointed personal assistant to the then Director of Building Research, Mr. H. O. Weller, at the former headquarters at Acton. The inevitable expansion of the Station, due to the increasing demand for scientific assistance in practical problems on the part of various Government Departments and the Building Industry, led to its removal to larger quarters at Watford in 1925, under the directorship of Dr. R. E. Stradling. The importance of this side of the Station's activities, under the charge of Mr. Barnett, can be gauged from the number of interesting and informative answers they have supplied to enquiries submitted ; these are published in this JOURNAL every month under the heading, " In that Contingency."

Mr. Barnett was a member of the Science Committee of the R.I.B.A., and also the chief representative of the Station on various committees of the British Standards Institution.

He leaves a widow and one son.

Mr. Alan E. Munby, F.R.I.B.A., for many years a member of the Science Committee of the R.I.B.A., writes : " I was impressed with the able way Mr. Barnett handled the several problems that came before the Science Committee. He formed a most valuable link between the R.I.B.A. and the Building Research Station, and he was always most ready to give advice to architects on any special problems they brought before him."

R. J. WILLIAMS

We regret to record the death of Mr. R. J. Williams, F.R.I.B.A., of Kettering, in his sixty-fifth year.

Born at Southampton, he was educated at Southsea, and later entered the office of Mr. A. H. Ford, A.M.INST.C.E., of High Street, Portsmouth. In 1888 he became assistant architect to Viscount Portman, working on his estates in Somerset, Dorset and North Devon. Three years later he commenced practice in Kettering.

Mr. Williams formed the Northamptonshire Association of Architects, and was a member of the Council ; and in 1929 he was the President of an enlarged Association which comprised Northants., Hunts. and Beds.

S. S. REAY

We regret to record the death, which occurred at Monkton Combe, of Mr. Samuel S. Sebastian Reay.

For over 40 years he was in partnership with the late Alderman T. B. Silcock, at Bath.

Mr. Reay originated the old Bath Preservation Society when Bath Street was threatened during a city " improvement " scheme in pre-war days ; and was successful in the competitions for the County Offices of Cornwall and the Llandudno Town Hall, whilst his last work was a large house for Mr. Isaac Carr near Southstoke.

Deputation to Minister of Health

Sir Hilton Young, the Minister of Health, received a deputation from the National Housing and Town Planning Council last week.

The deputation was introduced by the

Chairman of the Council, Mr. T. Alywn Lloyd, F.R.I.B.A., and the speakers were :

Mr. F. M. Elgood, C.B.E., F.R.I.B.A. ; Miss Eleanor Rathbone, M.P. ; Mr. George Hicks, M.P. ; Alderman David Adams, J.P. ; Alderman R. M. Challice ; Major E. C. P. Monson, F.R.I.B.A., F.S.I. ; Councillor H. W. Palmer ; and Alderman Frank Sheppard, C.B.E.

The object of the deputation was to present to the Minister the misgivings which the National Housing and Town Planning Council felt at the proposal contained in the Housing Bill now before Parliament to discontinue subsidy under the Act of 1924. If, however, that policy was to be adopted they trusted that the Minister would consider the position of those authorities who had proposals which, though ready for submission, had not actually been submitted before the date fixed in the Bill. The deputation urged also that the housing standards should be safeguarded.

The Minister explained the reasons which had led to the adoption of the Government's policy and referred in particular to the fall which had taken place in the cost of building and the price of money. He said that he was considering sympathetically the position of authorities whose proposals were in an advanced state and thought there would be opportunity of dealing with this question as well as that of housing standards during the Committee stage.

PRESENT-DAY ARCHITECTURE

Sir Reginald Blomfield, F.R.I.B.A., speaking on present-day architecture at a dinner of the Authors' Club, held in London on Monday of last week, said :

The Muses have fled into the wilderness and left chaos behind them, and the Cinderella of the arts has been dragged out of the scullery and been made to wear hideous clothing and to cut all sorts of unseemly capers on an alien stage.

You will find strange buildings with continuous horizontal rows of windows and not a comfortable corner out of the draught ; rooms with no cornices because they are said to hold dust ; buildings which affect to be in reinforced concrete, but are in fact steel framed, filled in with bricks and covered with cement.

Why are all our modern buildings to be based on factory design outside and on the design of the operating theatre of the hospital inside ? It is true that the Germans have devoted much of the money lent them by America to the erection of factories, but that is no precedent for us in England.

Why, again, are we to imitate what they are doing on the Continent ? England is not the Continent, and I hope it will always keep clear of it. But it is part of the gospel of the moderns that internationalism is the ideal, that everything is to be done by mass effort, and that art is to become more and more standardized, another word for its being mechanized.

We are beginning to realize that civilization is killing itself. Yet here are artists, who, par excellence, should be individualists, and whose only contribution to life is what is given by their own individual vision, bowing down before the juggernaut of technocracy and giving us that modern art which is depressing beyond endurance, and which, whatever else it may be, is not art as it has been understood by man since the dawn of civilization.

A BATH PORTICO

Following are copies of letters that have passed between the Town Clerk of Bath and the Secretary of the Bath Preservation Society.

Guildhall, Bath. *January 3, 1933.*

PORTICO—OLD LITERARY INSTITUTION

DEAR MADAM,—I beg to inform you that at the meeting of the City Council this morning the question of the demolition of the portico of the old Literary Institution was considered. After considerable discussion I was instructed to write and enquire whether your Society desire to make arrangements for the removal of the portico and its re-erection on some other site in the City, free of any cost to the Corporation. As you are aware the building is in course of demolition, and I shall be glad if you will let me know within the next 14 days whether your Society is desirous of accepting this offer of the Corporation.

Yours faithfully,
J. BASIL OGDEN,
Town Clerk.

Miss F. Tylee,
Secretary,
Old Bath Preservation Society,
20 Henrietta Street,
Bath.

20 Henrietta Street, Bath. *January 16, 1933.*

J. Basil Ogden, Esq.,
Town Clerk,
Guildhall, Bath.

SIR,—In reply to a letter received from you on January 3 conveying to the Old Bath Preservation Society the City Council's conditional offer of the " Portico," formerly a part of " The Literary Institution," now in course of demolition : the Committee of the Society, while thoroughly appreciating the motives of the Council, yet feel that their action shows plainly that the aims of the Society are totally misunderstood by those who made such an offer.

The Society is not a body of " Antiquarians," existing to collect and protect, more or less authentic ruins and relics, but an association of nearly a thousand intelligent men and women, fully aware of the Beauty and Uniqueness of Bath, and very anxious that these features of a famous city shall not be destroyed.

It should also be recognized that the idea of re-erecting the portico on some other site, did not originate with this Society, but was the uninvited suggestion of an outsider. My Society would point out that when, in 1924, " The City Improvements Proposals," mainly directed to " slum clearance," but including the demolition of the Literary Institution, was the subject of a poll of the ratepayers, and approved " as a whole," by a majority, the Society was not then functioning, its revival as an active, and steadily increasing body only dating from the summer of 1929.

The Society was desirous of preserving the building as a whole, where it stood, and to this end its efforts were directed. It has no use for the " Fragment " offered, after it has been discovered, that neither for sentimental, nor practical reasons, do any persons wish to acquire it when advertised in " Market overt," and is of opinion that little purpose would be served by preserving the portico, bereft of its background, even were such a course technically possible.

In limiting the time for a reply to " 14 days " it is obvious that the Council do not realize the difficulty of obtaining at this season the considered opinions of those among the members on its roll who are scattered throughout England, the United States, Canada, and the Channel Islands, as well as those residing in Bath and its neighbourhood, who have set in authority the persons responsible for the welfare of the City, but my Committee believes that in declining the Council's offer it speaks for the Society *as a whole.* It cannot, however, refrain from expressing surprise that such an offer should, under existing circumstances, have been made, as it has been admitted by experts with practical and technical knowledge that the condition of the stonework renders removal for re-erection impossible ! Though always ready to support the Council's efforts to increase as well as preserve the attractions and amenities of Bath, the Old Bath Preservation Society feels that in this case it cannot conscientiously and usefully co-operate.

Faithfully yours,
FLORENCE TYLEE,
Hon. Sec., Old Bath Preservation Society.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, and some of the sub-contractors for the buildings illustrated in this issue :

Victoria House, Kingsway, W.C. (pages 244-5 and Supplement). General contractors, James Carmichael, Ltd. H. V. Palliser, sculptor. Sub-contractors : Willment Bros., excavators, etc. ; Dorman Long & Co., Ltd., steelwork ; Fenning & Co., Ltd., granite ; Bath Portland Stone Firm, Ltd., stonework ; C. Isler & Co., Ltd., Richards, Le Grand Sutcliffe and Gell, Ltd., artesian wells ; Crittalls Mfg. Co., Ltd., windows and bronze doors ; Luxfer, Ltd., roof and lay lights ; J. A. King & Co., Ltd., pavement lights ; William Smith and Evans, slaters ; Pilkington's Asphalte Co., Ltd., asphalters ; Joseph Chaters and Sons, Ltd., glass and copper light glazing ; Smith Major and Stevens, Ltd., and Waygood-Otis, Ltd., lifts ; Merryweather and Sons, Ltd., fire hydrants ; Pollard & Co., Ltd., shop fronts and bronze doors ; Frederick Sage & Co., Ltd., show cases ; Norris Warming Co., Ltd., heating and ventilation ; J. Whitehead and Sons, Ltd., and Carter & Co., Ltd., marble and terrazzo ; Engineering Works, Ltd., electric light and power ; C. H. Mabey, stone carving ; Gilbert Seale and Son, Ltd., stone carving and fibrous plaster ; James Gibbons, Ltd., iron railings ; Relay Automatic Telephone Co., telephones ; Standard Time Co., Ltd., electric clocks ; Zeta Wood Flooring and Bennett's " Tungit " Wood Flooring, wood block floor ; H. H. Martyn & Co., Ltd., bronze doors, grilles and lead cresting ; Birmingham Guild, Ltd., bronze grilles and gates, etc. ; Bromsgrove Guild, Ltd., bronze fire surrounds, etc. ; Lamson Pneumatic Tube Co., Ltd., letter shutes ; F. and E. Eastmans, tilers ; London Brick Co. and Forders, Ltd., and Stourbridge Brick Co., Ltd., bricks.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The MARYLEBONE B.C. reports that the St. Marylebone Housing Association, Ltd., has purchased a site in the Borough for providing housing accommodation.

Proposals have been submitted to the MARYLEBONE B.C. for developing the site of 132-148 Edgware Road, by Mr. F. J. Wills, acting on behalf of Messrs. Kennedy and Clarke.

Messrs. Morgan, Baines and Clark, on behalf of Mr. A. H. Jennings, are to develop an estate of about 52 acres at Sanderstead Hill, SANDERSTEAD.

Plans passed at SANDERSTEAD: Three houses, Addington Road, for Mr. H. Johnson; four houses, Limpsfield Road, for Messrs. Bridges, Doran and Co., Ltd.; house, Essenden Road, for Messrs. Jenkinson and Hinson; two houses, Court Hill, for Messrs. Thomas and Son; four houses, Addington Road, for Mr. R. V. Tutte.

Plans passed at SOUTHGATE: Alterations and additions, Cuthbert's shop, High Street, for Mr. C. W. Dennis; additions, Chase Bank Nursing Home, Avenue Road, for Mr. H. Harvey; five houses, Wades Hill, for Messrs. Martyn, Ltd.; workshops, rear of Westview and Melville House, Green Lanes, for Mr. C. E. Ward; lay-out of 37 houses, Broadfields Avenue, for Mr. O. R. Davis; (amended plan) lay-out of land, rear of Cherry Tree Hotel, for the Temple Estates Co.; lay-out of Oak Lodge Estate, for the Union Surplus Land Co.; factory, Chequers Works, Chequers Way, for the Metal Box Co.; lay-out of 63 houses, Greenway, for Mr. C. E. Hartshorne; six houses, Broadfields Avenue, for Mr. O. R. Davis; addition to dairy premises, 24 The Green, for Messrs. A. C. Garrard; seven shops, Green Lanes, for Messrs. J. Stanley Beard and Clare; pavilion, Radcliffe Road, for Mr. C. E. Ward; house, Townsend Avenue, for Messrs. G. S. Bentley and Son; church hall, rear of Winchmore Hill Congregational Church, for Messrs. Storrar and Son; alterations, 25 and 27 Green Lanes, for Messrs. J. Myring & Co.; house, Waterfall Road, for Messrs. Mattock and Parsons.

Mr. W. J. King has submitted plans to the SOUTHGATE U.D.C. of a cinema, seven lock-up shops and eight shops with flats over, proposed to be erected in Bowes Road, N.21.

Plans passed at SOUTHALL-NORWOOD: Six houses, Melbury Avenue, for Messrs. Warren and Woods; three houses, Townsend Road, for Mr. G. Marsh; six houses, Beaconsfield Road, for Mrs. C. Grey; two houses, Dorset Avenue, for Messrs. Warren and Woods; four houses, Regina Road, for Messrs. W. and C. Hanshaw, Ltd.; three shops, North Road, for Mr. E. Hayes; 22 houses, Tentelow Lane, for Messrs. Waterhouse & Co.; conversion into flats, 158 Uxbridge Road, Southall Park Estate, for Messrs. R. Fielding and Son; four flats, Lady Margaret Road, for Messrs. E. Plaistowe and Sons, Ltd.

The TEDDINGTON U.D.C. is considering the use of the land at the Waldegrave depot for a housing scheme.

Plans passed by the WESTMINSTER City Council: New street between Floral Street and Covent Garden, for Messrs. Hood and Huggins; bridge reinstatement, Carting Lane, connecting Savoy Hotel with Shell-Mex House, for Messrs. Hall and Robertson; bringing forward front of building, 6 and 7 Lyall Mews, for Messrs. W. J. Smith & Co.; shop, 1 Buckingham Palace Gardens, for Mr. D. G. Somerville; alterations and additions, 25 South Street, for Mr. E. B. Musman.

The WESTMINSTER City Council has arranged for an improvement in connection with a proposal of Mr. F. Etchells to erect houses on the site of 38 Chapel Street, abutting upon Chapel Street and Headfort Place.

SOUTHERN COUNTIES

The EASTBOURNE Corporation is to further consider a scheme for the improvement of the Grand Parade, estimated to cost £17,000.

Plans passed by the GILLINGHAM Corporation: Two bungalows, Thames Avenue, for Mr. S. Darling; two houses, Oxford Road, for Messrs. A. W. Little & Co.; extension, Liberal Club, Canterbury Street, for Mr. C. J. Jarvis; hall, Gardiner Street, for Salvation Army; alterations and additions, 66 Watling Street, for Messrs. T. Cornelius and Son; shop and house, Maidstone Road, for Mr. F. W. Hicks; two houses, Grange Road, for Mr. F. S. Rowden; 29 houses, Chalkenden estate, London Road, for Mr. F. B. Cooper; 18 houses, Pump Lane, Rainham, for Messrs. Newnham and Howard; layout of land in Watling Street, for Messrs. Style and Winch; development of building estate, Rainham Mark, for Mr. G. H. Ward.

The WORTHING Corporation is considering a scheme for extensions at Swandean Hospital, the cost being estimated at £16,850.

SOUTH-WESTERN COUNTIES

Plans passed at PLYMOUTH: Shops, York Street, for Messrs. Jillard Bros.; layout of Barne Estate, St. Budeaux, for Mr. C. Jope; construction of soil and surface water sewer, St. Martin's Avenue, Peverell, for The Pounds Building Estate Co.; eight houses, Barne Estate, for Mr. C. Jope; alterations to premises, Frankfort Lane, for Messrs. Costers, Ltd.; alterations and additions, rear of 3 and 4 Cornwall Street, for Messrs. E. Dingle & Co.; seven houses, Cannon Street, North Corner, for Mr. J. Borrows; layout of land, and 22 building plots, east of Beauchamp Road, for Mr. C. R. Tozer; two houses, Ayreville Road, for Mr. F. Westcott; two houses, Furneaux Avenue, for Mr. W. Edgcumbe; four houses, Beauchamp Lane, Peverell, for Mr. C. R. Tozer; two shops, Wolseley Road, Milehouse, for Messrs. A. C. Jones and Son; offices, showrooms and workshops, Cemetery Road, for Messrs. J. Geach and Son.

MIDLAND COUNTIES

The BIRMINGHAM Corporation has sold land at the junction of Gospel Lane and Lakey Lane, Hall Green, to the Methodist Church trustees for the erection of a church and school.

The CHELTENHAM Corporation Housing Committee has instructed Messrs. Rainger and Rogers to prepare plans for the erection of 50 houses on the Alstone Lawn estate, to provide accommodation for the population displaced from the Swindon Place area.

The DUDLEY Corporation has decided to invite tenders for the erection of 214 houses for the working classes on the Priory estate.

Messrs. Jordans are to erect 34 houses on the Newport-Pagnall Road, HARDINGSTONE.

The NORTHAMPTON Corporation has prepared a new scheme for the erection of a pavilion at the racecourse, at a cost of £9,500.

The OXFORD Corporation is to erect eight houses on the Barton Road site, and has obtained sanction to borrow £19,000 for the Glebe housing scheme.

NORTHERN COUNTIES

The Durham County Council is considering a scheme for converting the infirmary and colony blocks at the BISHOP AUCKLAND institution into a surgical hospital.

The Lancashire Education Committee has purchased a site at DAVYHULME for the erection of an elementary school.

The HULL Corporation has approved amended plans for two-story buildings at Tilworth Grange, with a view to reducing the cost of the proposed extensions to £12,300. The Committee also decided that it is necessary to proceed immediately with the proposed male colony at Winestead, at a cost of £40,000.

At a meeting of the HULL Corporation Mental Hospital Committee, the city architect reported that the working drawings for the proposed villa for 40 patients were now in course of preparation.

The HULL Corporation is to construct roadways in connection with the 60 cottage flats to be erected in Barnsley Street.

The trustees of the Endike Lane Methodist Church are to erect a church in Endike Lane, HULL.

The Lancashire Education Committee has purchased a site at HUYTON for the erection of a junior school.

The Lancashire County Agricultural Committee has prepared schemes for the development of small holdings at FARINGTON, at a cost of £6,615, and at MAGHULL, at a cost of £13,880.

The LANCASHIRE County Agriculture Committee recommends the provision of a further 100 fully equipped small holdings in suitable localities.

The Ministry of Health has now approved the scheme of the LANCASTER Conservancy for dealing with the trade and domestic effluents at present running into the river Lune, at a cost of £70,000, and requested details and estimates for submission in connection with the loan application.

The MANCHESTER Corporation Town Planning Committee has raised no objection to a proposal for the erection of a cinema at the junction of Rochdale Road and Hall Crescent, Collyhurst.

The MANCHESTER Corporation is to proceed with the construction of a bridge at School Lane, Didsbury.

The MANCHESTER Education Committee is to prepare final plans for the erection of the Rack House junior school, at Wythenshawe.

Plans passed at MORECAMBE: Conversion into flats, premises on Skipton Street corner of Marine Road, for Mr. F. Obank; four houses, Balmoral Road, for Mr. A. Heathcote; 24 bungalows, Oxcliffe Grove, and lay-out of street, for Messrs. D. Hunt and Son; cesspools, Westgate, for Messrs. Brook and Kershaw; four houses, Lancaster Road, for Messrs. Barlow and Gerrard; alterations, 45 and 46 Erving Terrace, for Mrs. Sarah A. Airey; alterations to house and shop, Devonshire Road, for Miss G. Ratcliffe; 34 houses, off Westgate, for Messrs. Brook and Kershaw.

The NORTHUMBERLAND C.C. has agreed upon the suitability of the site at Northgate, Morpeth, for the erection of a mental institution. The county architect is now preparing the scheme.

Plans passed by the SHEFFIELD Corporation: Elementary school and house, Oaks Fold Road, for Education Committee; two houses, Richmond Road, for Mr. F. Talbot; 200 houses, Shiregreen Estate, for Corporation Estates Committee; house, Watt Lane, for Messrs. Wright and Walton; four houses, Hurlfield Road, and two in Dobcroft Road, for Messrs. T. Ardern and Son; two houses, Whirlowdale Crescent, for Mr. W. Croft; two bungalows, Dobbin Hill, for Mr. H. Simpson; four houses, Manchester Road, for Mr. A. Spooner; 12 houses, Midhill Road, for Messrs. T. Wilkinson and Sons (Builders), Ltd.; five houses, Bell Hagg Road, for Mrs. C. E. Sales; four houses, Norborough Road, for Mr. G. H. Johnson; two houses, Longley Lane, for Messrs. Oxspring Bros.

The SHEFFIELD Corporation Estates Committee has decided to lease land in Beck Road to the Shiregreen Cinema Syndicate, Ltd., as a site for a cinema with billiard hall and dance hall.

Plans passed at SHIPLEY: 50 houses, Claremont Road, for the Claremont Land Development Co., Ltd.; four houses, Lynfield Avenue, for Messrs. Cooper Bros.; 73 houses, Victoria Park Estate, for Mr. H. Chippindale; 64 houses, Wrose Road, for Messrs. A. and F. Mellor; lay-out of street for 20 houses, off Westfield Lane, for Mr. A. Dickinson.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	Banbury	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A_1	Buxton	N.W. Counties	1 5	1 0¾
A_2	Cambridge	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	Halifax	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	Jarrow	N.E. Coast	1 5½	1 1¼
A	Keighley	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	Lancaster	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	Nantwich	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	Oakham	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	Paisley	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	St. Albans	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	Tamworth	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	Yarmouth	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

*In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
,, green ,, ,,		27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ½"	,,		14	0
,, ⅝"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			3½
,, ,, 26 oz. ,, ,, ,,	,,			4½
Arctic glass, white	,,			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,			6½
¼" Hartley's rough rolled	,,			7
¼" ,, wired cast	,,			10
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†7½	to	‡1 0
,, ,, 2	,,	†10	,,	‡1 3½
,, ,, 3	,,	†1 4½	,,	‡1 10
,, ,, 4	,,	†1 11	,,	‡2 4
,, ,, 6	,,	†2 3	,,	‡2 7½
,, ,, 8	,,	†2 5	,,	‡3 0½
,, ,, 12	,,	†2 10	,,	‡3 3½
,, ,, 20	,,	†3 3½	,,	†3 9
,, ,, 45	,,	†3 6½	,,	‡4 0½
,, ,, 65	,,	†3 11½	,,	‡4 4
,, ,, 90	,,	†4 4	,,	‡4 9
,, ,, 100	,,	†4 6	,,	‡4 11
Vita glass, sheet, n/e 1 ft.	,,			1 0
,, ,, ,, 2	,,			1 3
,, ,, ,, over 2	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2	,,			3 0
,, ,, ,, 5	,,			4 0
,, ,, ,, 7	,,			5 0
,, ,, ,, 15	,,			6 0
,, ,, ,, over 15	,,			7 6
Putty, linseed oil	lb.			3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5′ 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5′ 0" deep and cart away	„		9	6
„ „ 10′ 0" deep and cart away	„		10	0
„ „ 15′ 0" deep and cart away	„		10	6
If in stiff clay . . . add	„		3	0
If in underpinning . . . „	„		5	0
Digging, return, fill and ram . . . „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
⅝" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1½" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

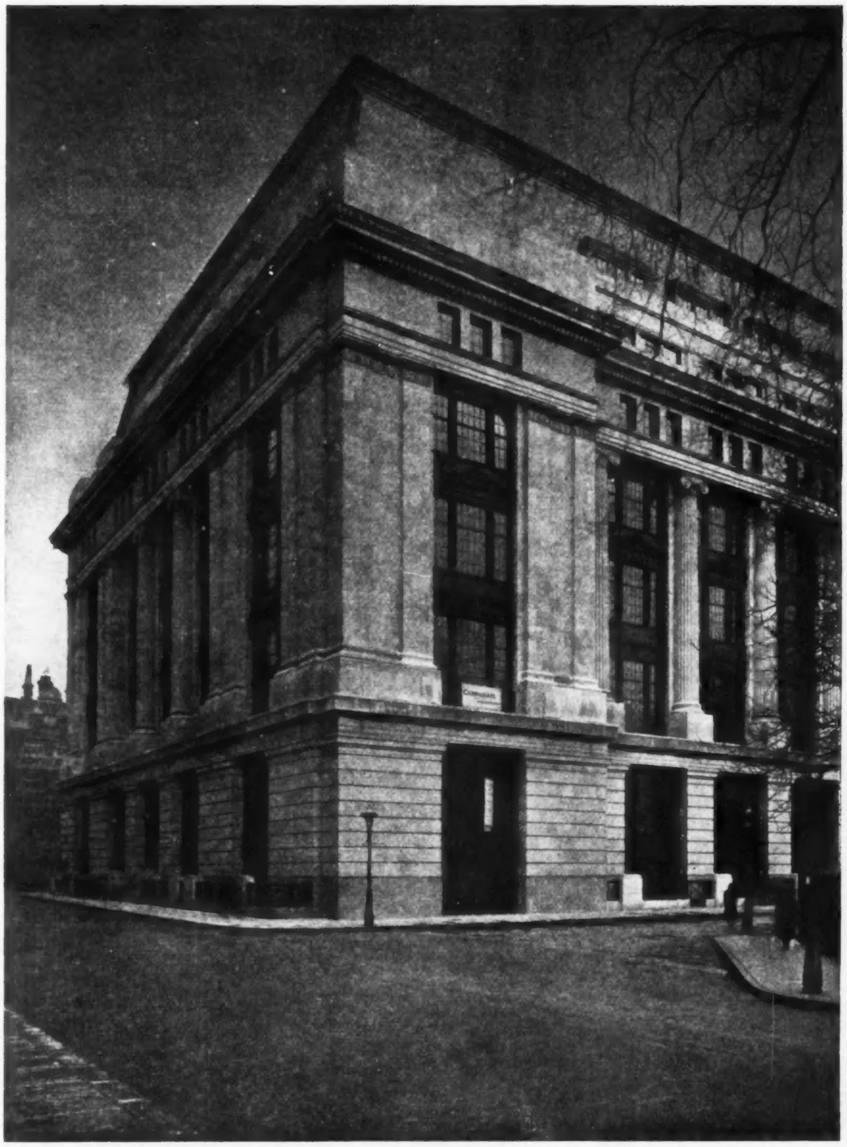
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7
26 oz. do. and do.	„		10½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	„	2	9

VICTORIA HOUSE, LONDON

DESIGNED BY : : CHARLES W. LONG

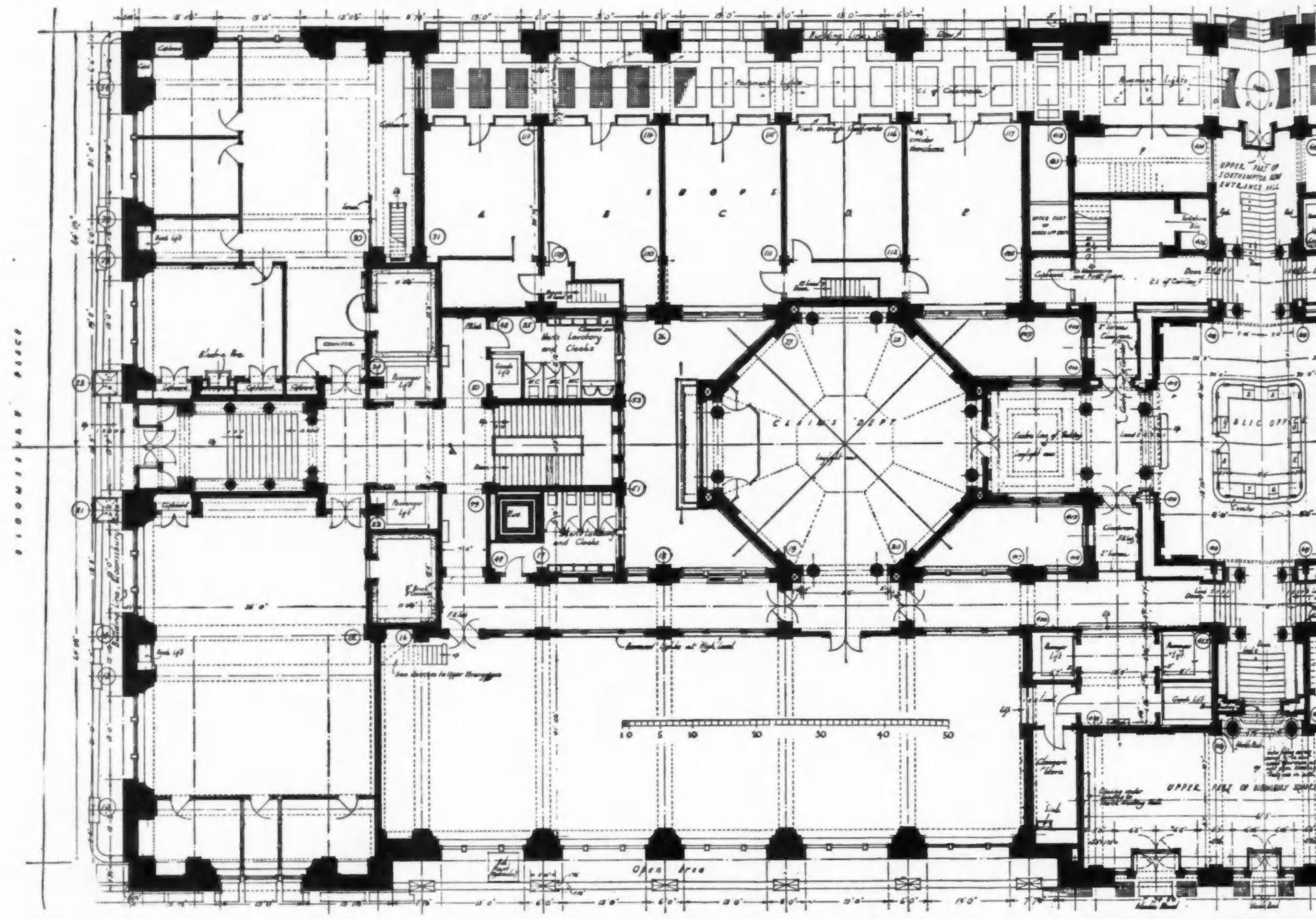


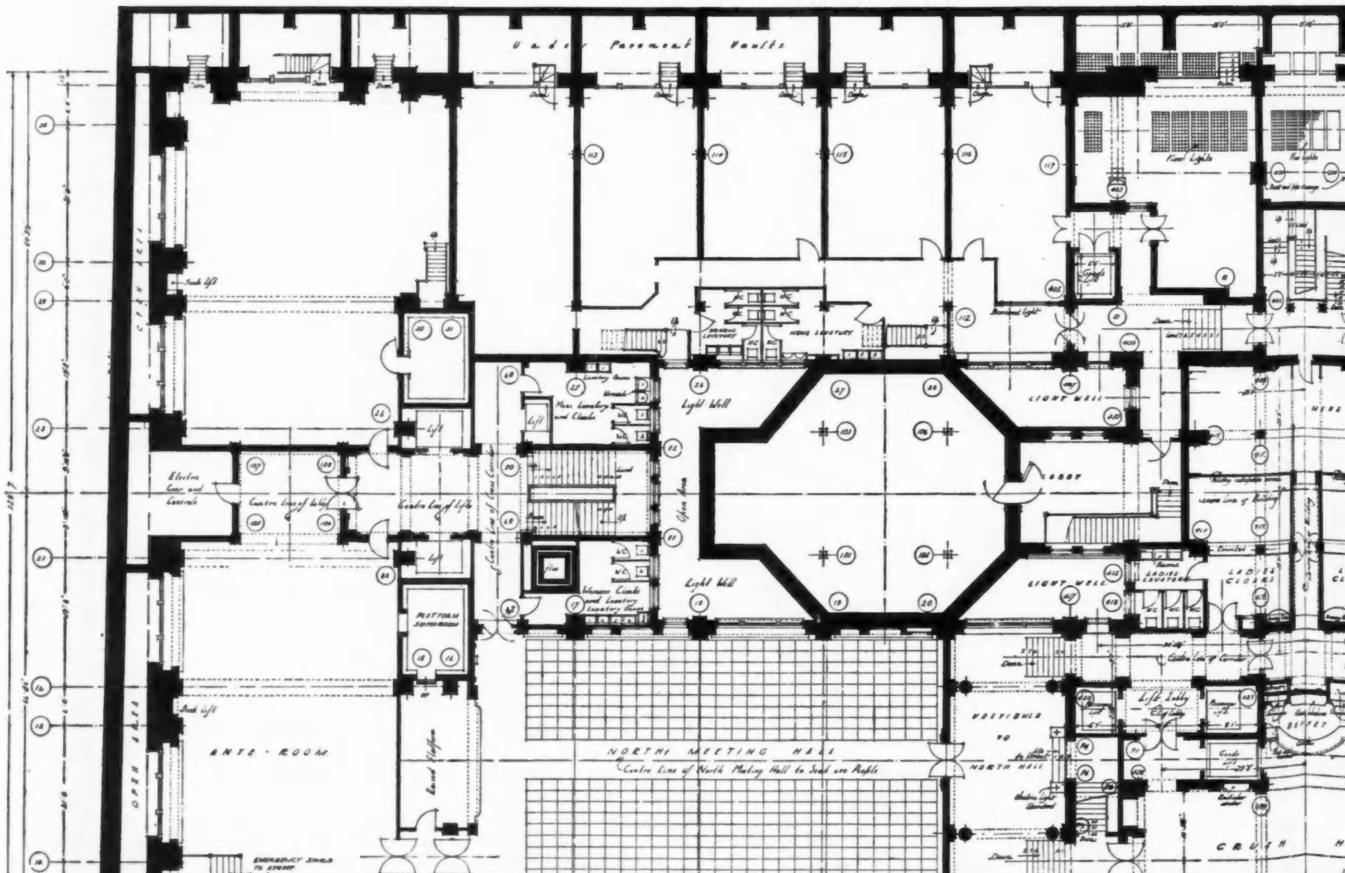
THE NORTHERN BLOCK, FROM BLOOMSBURY SQUARE

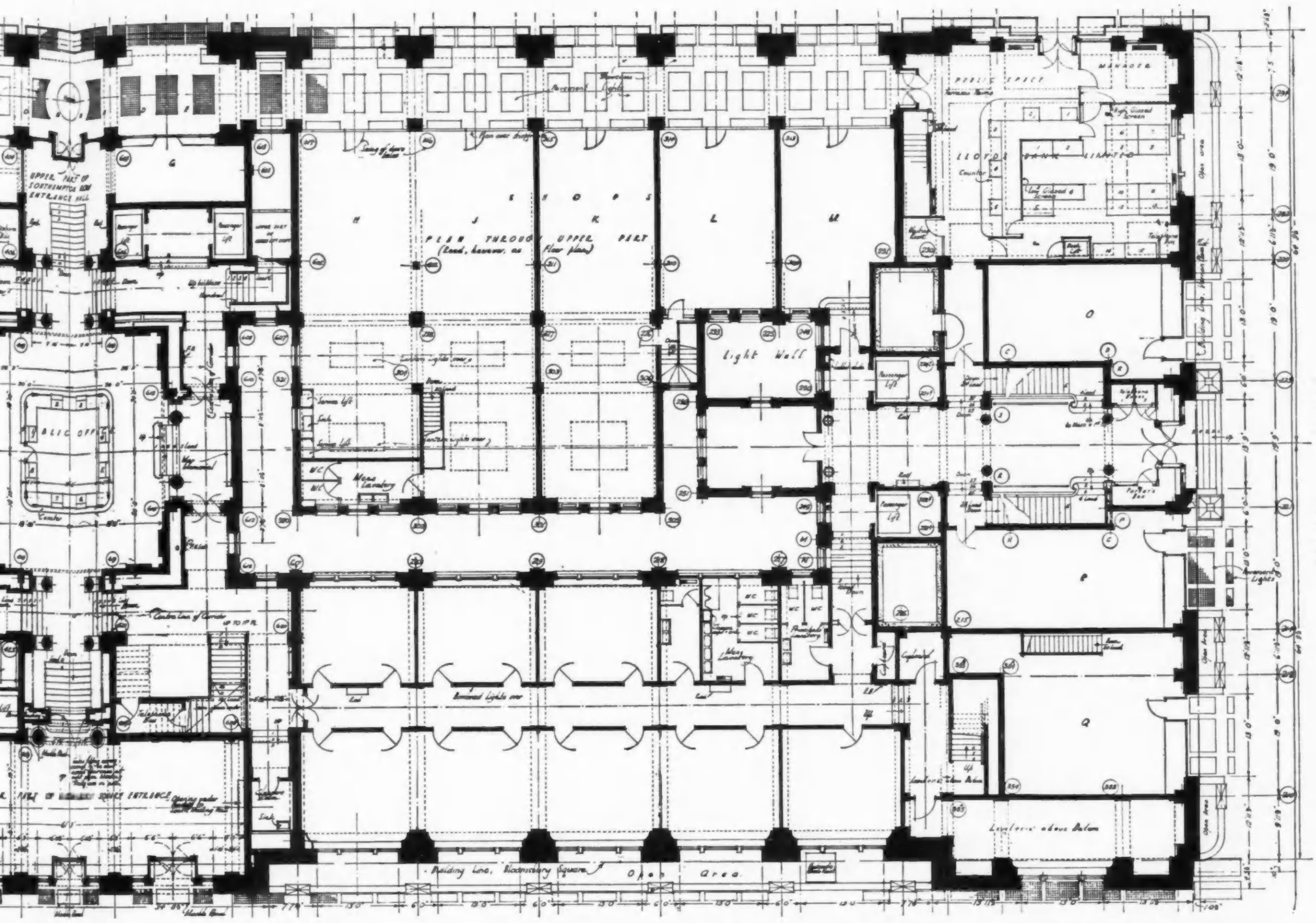
WITHIN are reproduced plans of the main ground floor and lower ground floor of the large building erected to house the Liverpool Victoria Friendly Society in Southampton Row, W.C., of which other views appear on pages 244-245.

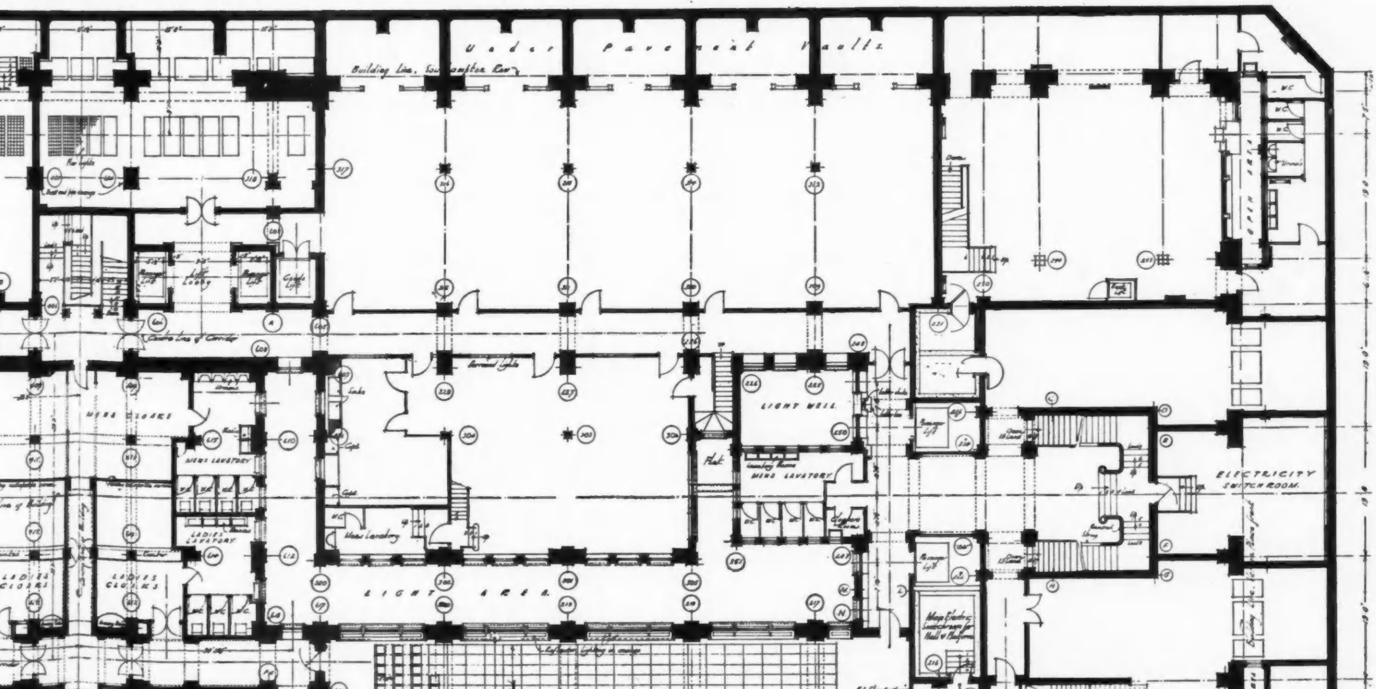
The site measures some 370 ft. by 140 ft., and the foundations are over 30 feet below ground level. In addition to the office accommodation there are a large dance hall, equipped with stage and spot lighting, another hall, and crush hall, buffet, etc.

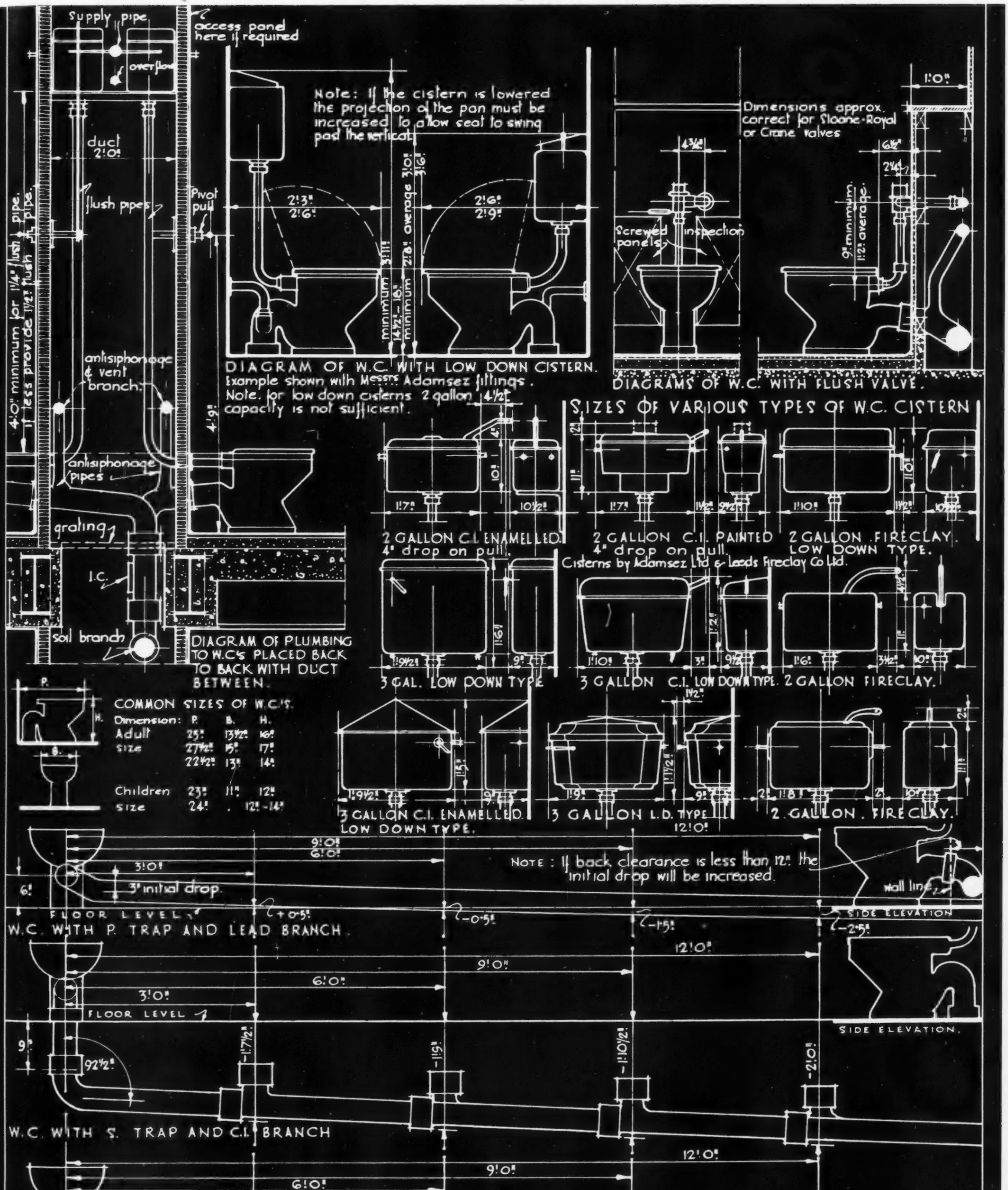
The external walls are faced with Portland stone on brick, and the roof is of Westmorland slates, with lead cresting. All the windows, which are steel casements, painted, are of standard size in screwed beads, to facilitate reglazing.


BLOOMSBURY PLACE
Building Line Bloomsbury Place
Pavement lights
S H O P S
A
B
C
D
E
Fish through Spotlights
Vestibule
Kitchen Bar
Counter
Passenger lift
Goods lift
Men's Lavatory and Cloaks
Women's Lavatory and Cloaks
C L A I M S   D E P T
Centre Line of Building
Cloakroom
P U B L I C   O F F
Counter
Pavement lights at High Level
Stairs down to Upper Basement
Open Area
UPPER PART OF SOUTHAMPTON ROW ENTRANCE HALL
UPPER PART OF BLOOMSBURY SQUARE
Cleaners' Store
Sink
10 5 0 10 20 30 40 50


U n d e r   P a v e m e n t   V a u l t s
OPEN AREA
Sack lift
Floor Lights
Goods Lift
MENS LAVATORY
Light Well
LIGHT WELL
Open Area
LOBBY
Electric Gear and Controls
Centre Line of Lifts
Women's Cloaks and Lavatory
Men's Lavatory and Cloaks
PLATFORM SERVING ROOM
ANTE - ROOM
Raised Platform
N O R T H   M E E T I N G   H A L L
Centre Line of North Meeting Hall to Seat 200 People
VESTIBULE TO NORTH HALL
LADIES LAVATORY
LADIES CLOAKS
Lift Lobby
BUFFET
Goods Lift
C R U S H   H
EMERGENCY STAIRS TO STREET
STATIONERY STORE
Building Line Bloomsbury Square Front   O P E N   A R E A
OIL
OIL
OIL
OIL


UPPER PART OF SOUTHAMPTON ROW ENTRANCE HALL
PUBLIC OFFICE
Pavement Lights
PUBLIC SPACE
MANAGER
LLOYDS BANK LIMITED
Counter
High Glazed Screen
Low Glazed Screen
Telephone Box
Open area
SHOPS
H J K L M
PLAN THROUGH UPPER PART (Read, however, as floor plan)
Light Well
Mens Lavatory
Passenger Lift
O
P
Q
Porter's Box
Pavement Lights
Building Line, Vernon Place
Centre Line of Corridor
Borrowed Lights over
Lavatories above Balcony
Building Line, Bloomsbury Square
Open Area
VERNON PLACE


Under Pavement Vaults
Building Line, Southampton Row
Centre Line of Corridor
MENS CLOAKS
MENS LAVATORY
LADIES LAVATORY
LADIES CLOAKS
LIGHT WELL
Mens Lavatory
LIGHT AREA
Passenger Lift
ELECTRICITY SWITCH ROOM
OPEN AREA
WC
Urinals
Main Electric Switchgear for Hall & Platform
SOUTH MEETING HALL
SEATING 500 PERSONS
25 ROWS
Platform
Footlights
BUFFET
Reflector Lighting in coving
3" Graham Block
Floor Lights
Building Line, Bloomsbury Square
OPEN AREA
Chair Store
Ceiling lights over


supply pipe
access panel here if required
overflow
duct 2'0"
flush pipes
Pivot pull
4'0" minimum for 1¼" flush pipe. If less provide 1½" flush pipe.
antisiphonage & vent branch.
antisiphonage pipes
4'9"
grating
I.C.
soil branch
DIAGRAM OF PLUMBING TO W.C'S PLACED BACK TO BACK WITH DUCT BETWEEN.
Note: If the cistern is lowered the projection of the pan must be increased to allow seat to swing past the vertical.
2'3" 2'6"
2'6" 2'9"
minimum 3'11" 14½"–16" minimum 2'8" average 3'0" 3'6"
DIAGRAM OF W.C. WITH LOW DOWN CISTERN.
Example shown with Messrs. Adamsez fittings.
Note. for low down cisterns 2 gallon capacity is not sufficient.
Dimensions approx. correct for Sloane-Royal or Crane valves
1'0"
4½" 6½" 2¼"
9" minimum. 1'2" average.
Screwed panels
inspection
DIAGRAMS OF W.C. WITH FLUSH VALVE.
SIZES OF VARIOUS TYPES OF W.C. CISTERN
1'7" 10" 10½" 4½" 4"
2 GALLON C.I. ENAMELLED. 4" drop on pull.
1'7" 11" 1½" 9½" 2"
2 GALLON C.I. PAINTED 4" drop on pull.
1'10" 1½" 10" 10½"
2 GALLON FIRECLAY. LOW DOWN TYPE.
Cisterns by Adamsez Ltd & Leeds Fireclay Co Ltd.
1'9½" 1'6" 9"
3 GAL. LOW DOWN TYPE
1'10" 3" 9½" 1'2"
3 GALLON C.I. LOW DOWN TYPE.
1'6" 3½" 10" 4½" 11"
2 GALLON FIRECLAY.
1'9½" 9" 1'5"
3 GALLON C.I. ENAMELLED. LOW DOWN TYPE.
1'9" 9" 1'1½" 1½"
3 GALLON L.D. TYPE
2" 1'8" 2" 10" 2" 1'1"
2 GALLON. FIRECLAY.
COMMON SIZES OF W.C.'S.
P. B. H.
9'0" 6'0" 3'0" 12'0"
6"
3" initial drop.
NOTE: If back clearance is less than 12" the initial drop will be increased.
wall line
SIDE ELEVATION
FLOOR LEVEL
+0·5" −0·5" −1·5" −2·5"
W.C. WITH P. TRAP AND LEAD BRANCH.
9'0" 6'0" 3'0" 12'0"
FLOOR LEVEL
9"
92½°
−1'7½" −1'9" −1'10½" −2'0"
SIDE ELEVATION.
W.C. WITH S. TRAP AND C.I. BRANCH
12'0" 9'0" 6'0" 3'0"
FLOOR LEVEL
5" 4"
−9½" −10½" −11½" −12½"
W.C. WITH S TRAP AND LEAD BRANCH.
DIAGRAMS OF FALLS OF SOIL BRANCH PIPES TO W.C'S.

COMMON SIZES OF W.C.'S.

Dimension:	P.	B.	H.
Adult size	25"	13½"	16"
	27½"	15"	17"
	22½"	13"	14"
Children size	23"	11"	12"
	24"		12"–14"

INFORMATION SHEET: PLUMBING TO, AND SIZES OF W.C.'S AND CISTERNS ETC.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 5 •

CISTERN PLUMBING

•

THE first Information Sheet in this series dealt with fixtures to urinals, etc. The present one continues the plumbing series, interrupted in order to give three concerned with seating spaces, and is to have a companion concerned with baths and lavatory basins.

The story of how these drawings—in themselves exemplars of the draughtsman's art—came into existence in the office of Sir John Burnet, Tait and Lorne, and of how, far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, has already been told.

The very fact that these Information Sheets, of a type in common use in America and Germany, are new to us here points the need for architects in this country to rationalize the activities in their own offices.

No one can avoid being impressed by the vital character of the information conveyed by these graphic and tabular means in the minimum of space with the maximum of clarity; they give, at a glance, just those very details which, though known to have been received some time or other, will usually take hours of search to unearth. Needless to say, their value depends on their being up-to-date.

It is arguable that one reason why, in the past, it has not been easy to collate such statistics, has been the reluctance of manufacturers in this country to perceive the advantages to them of standardizing the size and style of their catalogues and lists of goods, and the loose sheets by which, from time to time, they are revised, so as to reduce the architect's problems in compiling a reference library. Standardization in this respect has long been adopted in other countries.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

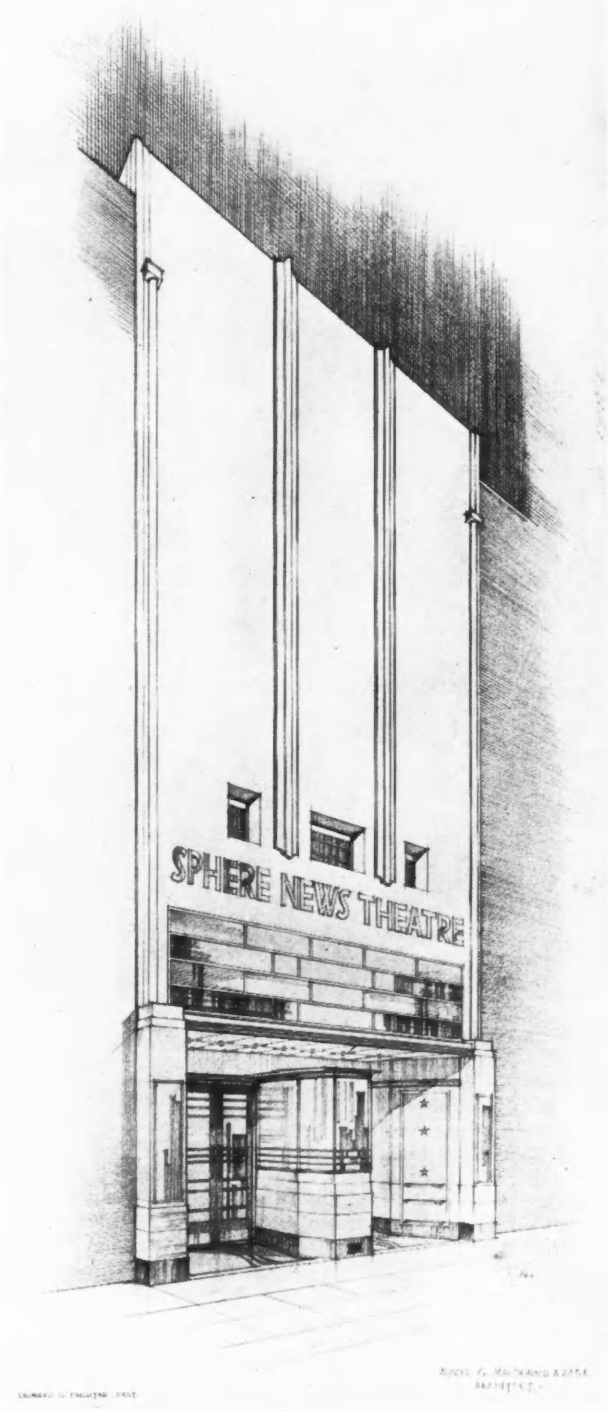
Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

The following is a list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.

LONDON'S LATEST NEWS CINEMA

RE-MODELLED BY ALISTER MACDONALD



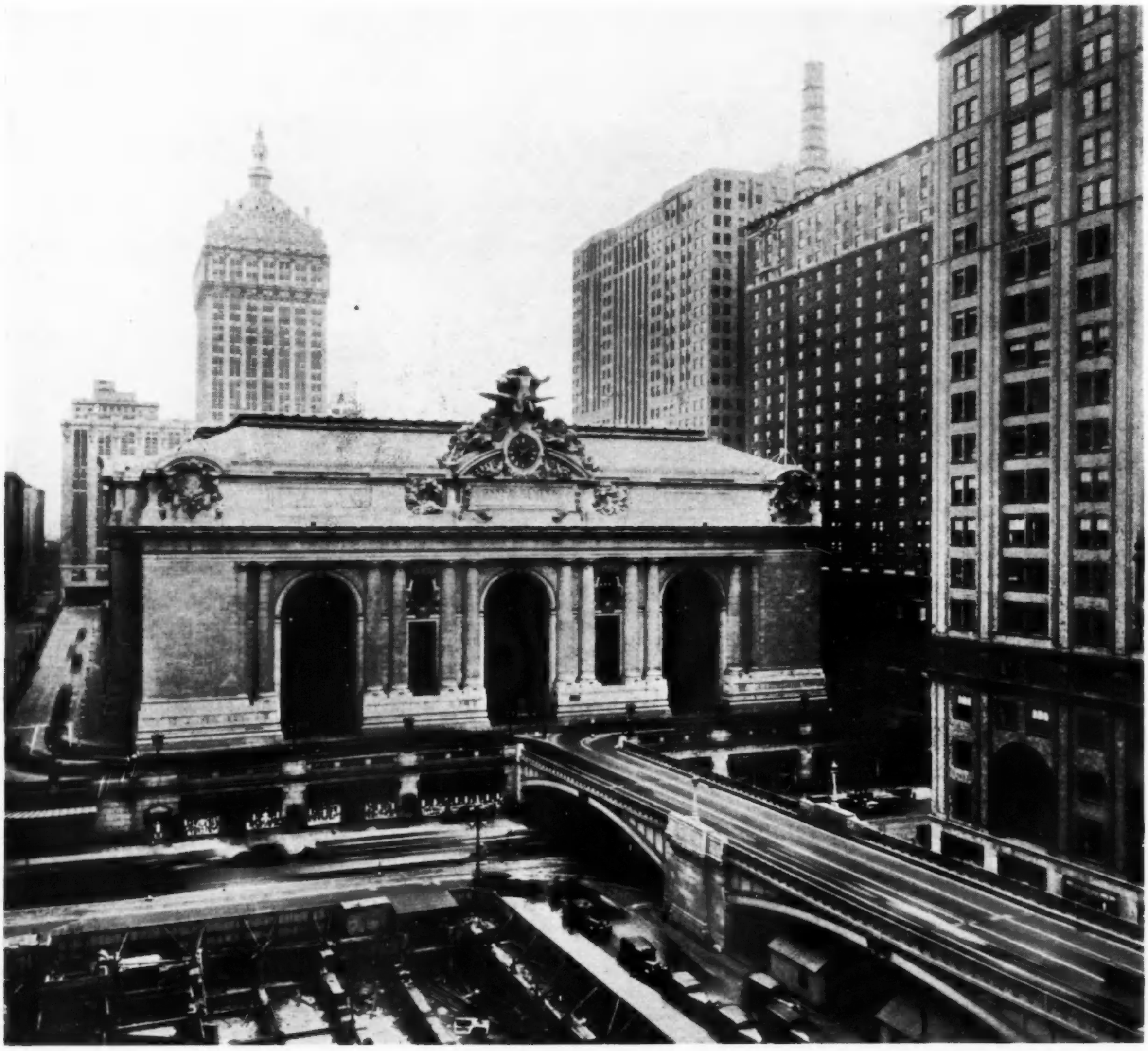
ON Monday last the Sphere News Theatre in Tottenham Court Road was opened. It has been converted from the old Gaiety Cinema, reputed to be the last silent picture house in London, by Alister MacDonald, A.R.I.B.A.

The windows in the old brick façade have been blocked in, and the whole of the upper portion has been masked with buff cement stucco. The large window above the entrance has a bronze frame and the panes are of black marmosite and reeded gilt glass. The plinth of the building is of golden travertine, and the swing doors into the auditorium are painted bright red.

The pay-desk has a prominent position at the front of the vestibule, and is constructed entirely of clear armour-plate glass. As the vestibule extends the whole way across the narrow façade of the cinema, the weight of the upper portion of the building is supported by two stanchions encased in blue brick piers.

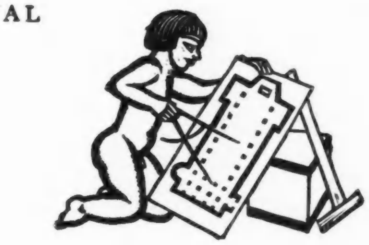
The interior of the building has been completely re-modelled. The new cinema is smaller than the old one, and is decorated simply in shades of terra-cotta and gold.

From the perspective drawing by Leonard G. Pargiter.



A PRESSING NATIONAL PROBLEM; AND ITS SOLUTION

THIS New York photograph of the new traffic lane encircling the Grand Central Terminal Station, Manhattan, and connecting it to Park Avenue at either end, should give thought to those who have the abolition of disease-breeding slum areas at heart. It is comparatively easy to clear them if only accommodation on other sites is economically available. There are potential sites over our railways, as Mr. Bossom pointed out in an article from which a salient cutting is reproduced on p. 261. For the streets, here shown covered in, substitute the railways (assuming these are certain to be electrified before long) and, for the traffic lane, another type of structure—housing tenements—and the idea is immediately applicable to London and other cities. On all hands it is agreed that the slum problem must be shelved no longer, depression or no depression; here is revived a definite suggestion for an economical approach to its solution.



THE DAILY EXPRESS

NOTHING is more futile than the employment of half measures to avert a catastrophe. We have suffered long from policies of hesitation. It is therefore stimulating to note the wholehearted vigour with which *The Daily Express* is conducting a campaign, or more correctly perhaps, a series of campaigns, all with the same end in view—to hasten the return to prosperity.

The restoration of the falling fortunes of this country can be accomplished only by accelerating the wheels of the industrial machine. To do this it is necessary, in the words of *The Daily Express*, to create " a mass consuming movement," which can be built up only by bringing into the market, in addition to those who may be made to see the importance of spending what money they have, those who have at present no money at all.

The first way to find work for such people and to pay them money which will help them to become what they want to be—hearty consumers—" is to set on foot large scale capital developments which will cause the stagnant pool of national savings in the bank to circulate." That pool, according to Sir Josiah Stamp, showed an increase of over £200,000,000 last year.

The money at present lying idle, whilst every activity is reduced to a minimum, must be brought into immediate circulation. It can be employed in the construction of public works and municipal building which, besides adding to the real wealth of the country, would provide work and wages, thereby " galvanizing into activity the whole range of wholesale production and retail trade which is now inert."

There is little doubt that the action of the Ministry of Health in placing a ban on building activities, on the grounds of economy, has had a psychological effect, and that, until such time as the ban is lifted and public work resumed, private enterprise will remain in its present dormant state.

For what reason does *The Daily Express* occupy itself with this campaign? Is Lord Beaverbrook merely finding a pretext to attack the Government? Those who disapprove of *The Daily Express*, and of Lord Beaverbrook too, may find it simple enough to explain why a newspaper with a circulation running into millions should support a campaign in favour of maintaining a high wage level—but they will not find it so easy to explain where the advantage lies in running a stunt for the promotion of public works.

The fact is *The Daily Express* has grasped, and is vigorously broadcasting, a truth which is now generally accepted by the leading economists in all camps. Public works should not be reduced, or suspended, when a country is suffering a period of depression ; that is just the time when they should go forward, not only to provide work for the unemployed but to act as a stimulant. The boom period is the time when they may cease ; and the pursuit of a policy based on this principle will have a steadying influence. It will prevent a depression deteriorating into a crisis, with the consequent disproportionate fall in prices ; and it will prevent a period of prosperity developing into the sort of boom where prices soar absurdly high.

We say this is a view held by economists in all camps. To support this assertion we would draw attention to a pamphlet on " Public Works " just issued by the New Fabian Research Bureau. Speaking of a period of trade depression such as we are now going through, Mr. J. E. Mead, the author of the pamphlet, says: " but if at this point public authorities determine to borrow for public works and to spend more on capital goods, at the same time that the banks are lowering interest rates, they will thereby be able to stop the fall in the price of capital goods and also, by maintaining the expenditure on consumption goods of those producing capital goods, to stop the fall in price of consumption goods, and so also the fall in profits and in share prices. Such extra expenditure on public works should be undertaken on a sufficient scale to prevent prices falling. It need only last sufficiently long to enable the banks, by lowering interest rates, to stimulate expenditure by ordinary private business again, and then the expenditure on public works can be diminished, as that of private business increases."

At the best, public works present many difficulties, and opinion is now, in many quarters, against them, particularly since Mr. Neville Chamberlain criticized the spending of money in this direction, and said the provision of public works as a remedy for unemployment had been tried out and had failed. We believe his figures to be wrong, and later hope to show how wrong they are.

The fact is, the pursuit of the policy of public works needs courage, and to those whose nature it is to discover reasons for not doing things it seems impossible.

But Lord Beaverbrook has taken up the cause of public works, and this we believe to be an encouraging sign. If he succeeds in getting something done it will not be the first time he has accomplished that which has been carefully proved impossible.

The Liverpool School Tie: the liver bird motif is taken from that of the pylon designed for the Railway Centenary of 1930 by W. G. Holford and G. Stephenson.

NOTES & TOPICS

“ WEARING THEIR OLD SCHOOL TIES.”—WESTERN BROTHERS

YOU will soon know them by their ties. The Liverpool School has designed two ties, a blue one for students, and a black one—to go with morning coat and striped trousers—for past students.

*

The design is quiet, modest and gentlemanly, a liver bird, that curious emblem of the city, suitably and well conventionalized within an oval of silver; and they can be obtained from the School Secretary for 4s.

*

As to the liver bird motif, it should be added that this was adapted from Mr. W. G. Holford's design for a column to be placed at an important street junction during the Railway Centenary celebrations. It is, as Professor Reilly says, the only supportable conventional representation of the peculiar fowl he has yet found.

*

PROFESSOR REILLY

My hope that Professor Reilly's name might figure in a future honours list has not been without its echo in other quarters. I can but hope that it may ascend to those high places where notice is taken. And that right early, for I have in mind the opening of the new school buildings which will set the seal of success upon the venture begun so long ago, and which Professor Reilly will enter only to leave again.

*

NATIONAL PLANNING IN THE HOUSE OF COMMONS—

In a week or two's time the House of Commons will have the opportunity of listening to a discussion inspired by the New Year Number of THE ARCHITECTS' JOURNAL. Dr. McLean, Conservative M.P. for the Tradeston Division of Glasgow, is to call attention to the need for a National Development Plan, and will move a resolution. Dr. McLean is Chairman of the Scottish Branch of the Town Planning Institute. He planned the City of Khartoum under the personal direction of the late Lord Kitchener. He also prepared, in 1918, the protective town-planning scheme for the old city of Jerusalem and the Holy Places, which was officially approved by Lord Allenby. I understand that on the same day Viscount Elmley, who is calling attention to the problem of Local Government, will also speak in favour of National Planning.

*

—AND IN THE PERIODICALS

The announcement by the Minister of Health that he will set up a Departmental Committee to inquire into the proposal to create a National Housing Corporation adds immediate interest to Sir Raymond Unwin's contribution, on February 11, to a series of articles on the housing problem that are appearing in *The New Statesman.*

*

Speaking of the provision of houses, Sir Raymond says:

> There are two alternatives—Direct action by local authorities, or the creation of a suitable public utility organisation. As regards the former, desirable as it is to free housing from the direct influence and see-saw of party government, it is hardly less so to free its details from local politics.

*

Having dealt with the advantages of the handling of the work by or through a public utility board, Sir Raymond continues:

> Post-war housing has proved . . . that under modern conditions the best chance to secure extensive small house building, in a manner that will not further disfigure the towns and country, is through co-ordinated schemes on well laid-out sites. However disappointing in the standard of design a few of the municipal housing projects may seem to the architect, seldom can he look at an adjacent small house area developed speculatively but he is confronted with a worse result.

*

In a recent broadcast, “ Housing and Civic Responsibility,” reported in *The Listener* on February 15, Sir Cecil Levita said:

> The total work done nationally in subsidized housing since 1919 has cost, in capital expenditure, the enormous sum of £630 million.

*

He emphasized the fact that municipal houses are generally houses to let at weekly rents, as opposed to post-war privately-produced houses which, up to now, have been built for sale, and said later:

> Happily, owing to falling prices, it now appears that a State subsidy is no longer needed to bridge the gap between the cost of production of a working-class house and the suitable rent. It is therefore hoped that private enterprise can start to build profitably houses for letting to all but the poorest classes.

*

Busy people, concerned with the world situation but without time to select from the columns of a daily paper the really vital points, are catered for by a new weekly, non-party bulletin, *Essential News,* which comprises quotations, summaries of significant facts and constructive suggestions, from English and foreign sources.

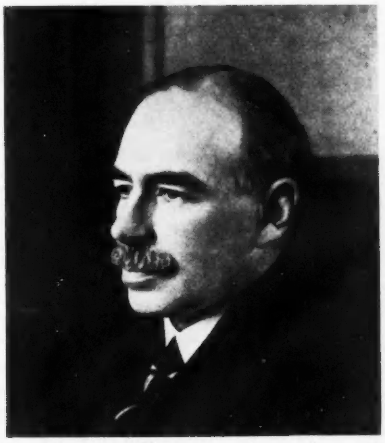
*

THINKING NATIONALLY

Professor Patrick Abercrombie's letter to *The Times* of Friday last, urging the necessity for a national survey of

A. G. Macdonnell, Honorary Secretary of the Carlton House Terrace Defence Committee.

Miss M. I. Batten, Secretary of the Carlton House Terrace Defence Committee.


J. Meynard Keynes, author of recent valuable contributions on the economics of housing.

housing conditions before entering upon anything we could possibly name a national campaign, is but another instance of the need for a really national survey covering town and countryside, economic and social activities, and, in fact, the entire ground upon which we hope to carry out a co-ordinated scheme of national rehabilitation.

*

Dr. Thomas Adams suggested this need in an earlier letter to *The Times* : perhaps we may look for more definite action—soon, while there is yet time.

*

A GOLF PALACE

"The moment he entered a superb spectacle met his dazzled gaze. It was not the parquet floor, on which his nail-studded shoes squeaked loudly, or the marble columns, or the voluptuous paintings on the ceiling, or the gilt-framed mirrors on the walls, or the chandeliers of a thousand crystals, or even the palms in their gilt pots and synthetic earth, that knocked him all of a heap."

*

No. It was the golfers. This dream of architectural magnificence was none other than a golf club—one of those super golf clubs which nestle so knowingly round London. Distinguished architects are often to be found in them on Sundays—and other days.

*

The quotation comes from *England their England* by A. G. Macdonnell, the latest book to be recommended by the Book Society. The theme is a Scot in search of England. It is a brilliantly funny book, written with a lovely zest, and the Englishman puts it down with a pleasant —if dubious—glow of complaisance.

*

The only place where Mr. Macdonnell's satire really stings is in the foxhunting scenes, which is surprising. It always seems to me that to induce Jews and stockbrokers to go through the rigours of a day in the saddle—even when they know God made no field without a gate—is rather a triumph for the English system. Incidentally, Mr. Macdonnell is the honorary secretary of the Carlton House Terrace Defence Committee, and the book is dedicated to Mr. J. C. Squire.

*

The secretary of that Committee is a woman—Miss M. I. Batten, well known for hunting the kind of foxes who have their earths in city board-rooms, where cunning plots are hatched for despoiling both the town and the countryside. Miss Batten hunts them down, and when they go to ground she digs them out. She has both the pertinacity and the guile of a fine huntsman. Like Oxford—if I may indulge the weakness for analogy which has suddenly overwhelmed my pen—Miss Batten is a home for lost causes. But with this difference : she does not share Oxford's affected predilection for losing its battles. The cause found by Miss Batten is no longer lost, as the Commissioners of Crown Lands have discovered. ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, February 22

R.I.B.A., 9 CONDUIT STREET, W.1. Exhibition of photographs of monuments of Islamic architecture in Persia. Until February 25. 10 a.m. to 8 p.m. 10 *a.m.*

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 10 a.m. to 6 p.m. 10 *a.m.*

BRITISH INDUSTRIES FAIR. At Olympia and White City (London) and Castle Bromwich (Birmingham). Until March 3.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "Some Italian Romanesque Churches." By F. R. Hiorns, F.R.I.B.A. 8 *p.m.*

ILLUMINATING ENGINEERING SOCIETY, 2 Savoy Hill, W.C. "Electric Lamps and Their Applications." By W. J. Jones. 6 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch. At 129 *Bath Street, Glasgow.* "The Use of Special Steels for Structural Purposes." By William Barr. 7.30 *p.m.*

BRITISH WOOD PRESERVING ASSOCIATION. At 29 Lincoln's Inn Fields, W.C.2. "Paint and Varnish as Wood Preservatives." By Dr. L. A. Jordan. 6 *p.m.*

Thursday, February 23

INSTITUTION OF STRUCTURAL ENGINEERS AND SOCIÉTÉ DES INGÉNIEURS CIVILS DE FRANCE. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Solar Illumination of the Interior of large Buildings." By M. Jacques Arthuys. 5.30 *p.m.*

INSTITUTION OF CIVIL ENGINEERS, Gt. George Street, Westminster, S.W. Meeting. "To Consider a Provisional Report of a Committee of the Institution on Floods in Relation to Reservoir Practice." 6 *p.m.*

Friday, February 24

INSTITUTION OF STRUCTURAL ENGINEERS. Midland Counties Branch. At the Chamber of Commerce, New Street, Birmingham. "Factory Construction and Equipment at Home and Abroad." By H. C. Johnson. 6.30 *p.m.*

Saturday, February 25

Sunrise 6.55 a.m. Sunset 5.33 p.m.

Monday, February 27

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.* "The Electric Grid and Its Purpose." By Sir Andrew Duncan, M.A. 8 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

Public works should not be reduced, or suspended, when a country is suffering a period of depression 257

You will know the members of the Liverpool School by their ties 258

Industrial architecture is the pioneer of the new "Transgressional" style 263

A protest against our journalistic methods 268

A Taj Mahal for Carlton House Terrace! 275

The Government's economy policy is still regulated by the circular of September, 1931 280

A person seated in a cinema gives off in one hour 400 B. Th. U.'s and 2 ozs. of water vapour 281

●

FRENCH ART

An exhibition of French Art—entitled "The Three French Reigns" (Louis XIV, XV and XVI)—was opened to the public yesterday at the house of Sir Philip Sassoon (25, Park Lane) in aid of the Royal Northern Group of Hospitals.

CIVIC SENSE IN SWEDEN

Mr. R. Gardner-Medwin, A.R.I.B.A., (Honan Scholar, 1932) read a paper on "Civic Sense in Sweden" at a meeting of the Liverpool Architectural Society on Wednesday last. After pointing out that he did not intend to talk about the Stockholm Town Hall—he knew of no lecture or article on Swedish architecture that had not described, with much relish, the bricks and mortar of that building—the lecturer said :

> The good standard of design and consistency in Swedish architecture was more impressive to me than the individual qualities of their buildings. It has been said that this generation in Sweden has been unusually prolific in artistic genius. This may be so ; but I believe we have just as large a supply of genius in England, and many modern buildings finer than theirs. Of the buildings well anchored to tradition there is nothing in Sweden which approaches the fine qualities of Liverpool Cathedral ; and, at the other extreme, in modernist machine architecture they have nothing to compare with the stations, coaches and *tout ensemble* of the London Underground, which I never cease to admire even when strap-hanging after a long day at the office . . . But what Sweden *has* got and we have *not* is National Good Taste. In Sweden the people *ask* for good architecture, and are given it : in England they are offered good architecture, *and won't accept it* . . . unless the architect happens to be a very skilful diplomatist.
>
> In April the B.B.C. is going to broadcast a series of talks on the subject of Design in Industries by some of our most able artists and architects. If only we can rouse a little more enthusiasm and make people realize how important architecture really is, our streets will be more exciting than Sweden's . . . and then England will be England again.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,019 17s. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

Mr. Leonard Barnish, F.R.I.B.A., who presided, instead of announcing the winner of the London Travelling Scholarship, stated that, after an inspection of the five sets of drawings submitted, the committee had recommended the withholding of the scholarship.

None of the schemes came up to the required standard, and the committee felt the response was poor to a subject—a design for a country club by the sea—which presented no undue difficulties.

Honoraria of £5 each were awarded to Mr. D. M. Cowin and Mr. R. V. Smith, the former a fifth-year student, and the latter a graduate of the Liverpool University School of Architecture.

BRITISH MUSEUM

The British Museum is to be modernized at a cost of £350,000. The work, which is expected to take five years to complete, is to be carried out for two reasons. First, to make the building fireproof throughout ; secondly, to increase the floor space.

THE ARCHITECTS' (REGISTRATION) ACT

The Architects' Registration Council of the United Kingdom, on the recommendation of the Board of Architectural Education, have decided to recognize the following examinations as a qualification for Registration under Section 6 1 (c) of the Act :—

R.I.B.A. : Final Examination, Special Final Examination. School of Architecture, Robert Gordon's Colleges, Aberdeen : Diploma Final Examination. Birmingham School of Architecture, Central School of Arts and Crafts, Birmingham : Diploma Final Examination. Welsh School of Architecture, The Technical College, Cardiff : Diploma Examination. School of Architecture, Edinburgh College of Art : Diploma Final Examination. Glasgow School of Architecture : Diploma Final Examination. University of Glasgow : Degree of Bachelor of Science in Architecture Final Examination. School of Architecture, Leeds College of Art : Diploma Examination. Liverpool School of Architecture, University of Liverpool : Final Examination for the Degree of Bachelor of Architecture ; Final Examination for the Diploma in Architecture. School of Architecture, The Architectural Association, London : Diploma Final Examination. Bartlett School of Architecture, University of London : Final Examination for the Degree of Bachelor of Arts in Architecture ; Final Examination for the Diploma in Architecture, School of Architecture, University of Manchester : Bachelor of Arts Degree with Honours in Architecture Final Examination ; Certificate Final Examination.

The recognition of the above examinations is retrospective.

FOR PRIVATE BUILDERS

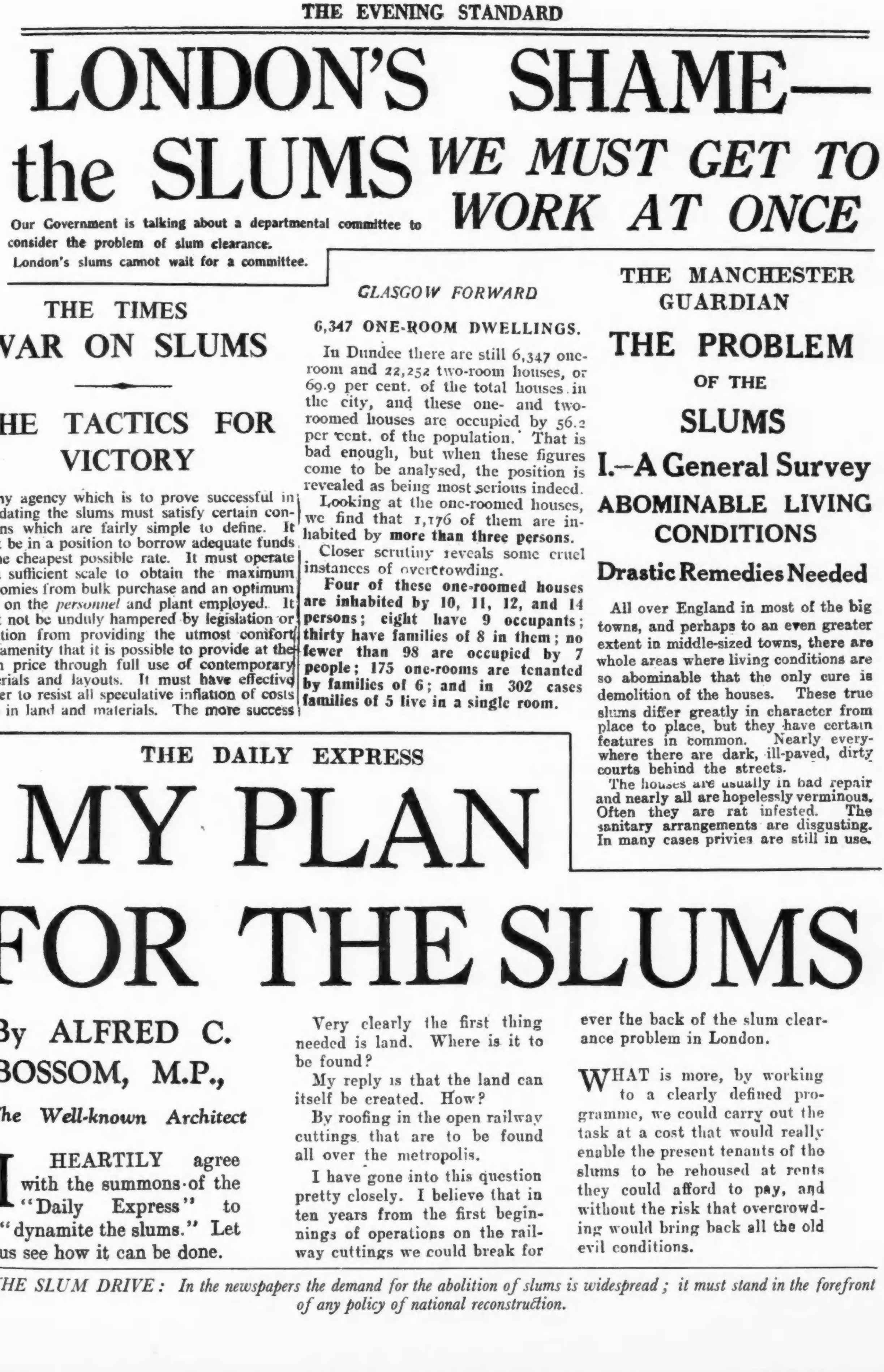
The Manchester Town Planning Committee, in collaboration with the City Architect, Mr. G. Noel Hill, is to circulate a memorandum to all private builders in the Manchester area, suggesting lines on which they might not only improve the standard of their work, but at the same time effect substantial economies.

The memorandum is to be prepared in booklet form, and will contain expert advice upon all phases of house building, from the planning of the site to the best types of doors, eaves and chimneys.

MUNICIPAL EXPENDITURE

The Minister of Health, in the House of Commons on Wednesday last, stated that there was no "blockade" of municipal expenditure. This statement was based on the fact that, of applications for loans amounting to £32,500,000 during the last sixteen months, only £2,500,000 have been refused by the Ministry, and is in apparent conflict with the estimate of the Special Committee for Public Relations of the Building Industries' National Council that works to the value of £30,000,000 have been held up or curtailed as a result of the policy of the Central Government. Actually, however, the figures chosen by Sir F. Hilton Young are apt to be misleading.

The influence of the Ministry of Health on the expenditure of local authorities is much wider and much greater than is indicated by figures of loans applied for and refused. The Ministry largely determines the atmosphere in which plans are prepared and applications for loans made. Then, when plans are prepared they must be approved, and when eventually an application is made for a loan the Ministry may refuse sanction. The figures of loans refused, therefore, indicate only the amount of work held up at the last stage of a very effective filtering process.



THE EVENING STANDARD

LONDON'S SHAME—the SLUMS

WE MUST GET TO WORK AT ONCE

Our Government is talking about a departmental committee to consider the problem of slum clearance.

London's slums cannot wait for a committee.

THE TIMES

WAR ON SLUMS

THE TACTICS FOR VICTORY

Any agency which is to prove successful in liquidating the slums must satisfy certain conditions which are fairly simple to define. It must be in a position to borrow adequate funds at the cheapest possible rate. It must operate on a sufficient scale to obtain the maximum economies from bulk purchase and an optimum load on the *personnel* and plant employed. It must not be unduly hampered by legislation or tradition from providing the utmost comfort and amenity that it is possible to provide at the given price through full use of contemporary materials and layouts. It must have effective power to resist all speculative inflation of costs both in land and materials. The more success

GLASGOW FORWARD

6,347 ONE-ROOM DWELLINGS.

In Dundee there are still 6,347 one-room and 22,252 two-room houses, or 69.9 per cent. of the total houses in the city, and these one- and two-roomed houses are occupied by 56.2 per cent. of the population. That is bad enough, but when these figures come to be analysed, the position is revealed as being most serious indeed.

Looking at the one-roomed houses, we find that 1,176 of them are inhabited by **more than three persons.**

Closer scrutiny reveals some cruel instances of overcrowding.

Four of these one-roomed houses are inhabited by 10, 11, 12, and 14 persons; eight have 9 occupants; thirty have families of 8 in them; no fewer than 98 are occupied by 7 people; 175 one-rooms are tenanted by families of 6; and in 302 cases families of 5 live in a single room.

THE MANCHESTER GUARDIAN

THE PROBLEM OF THE SLUMS

I.—A General Survey

ABOMINABLE LIVING CONDITIONS

Drastic Remedies Needed

All over England in most of the big towns, and perhaps to an even greater extent in middle-sized towns, there are whole areas where living conditions are so abominable that the only cure is demolition of the houses. These true slums differ greatly in character from place to place, but they have certain features in common. Nearly everywhere there are dark, ill-paved, dirty courts behind the streets.

The houses are usually in bad repair and nearly all are hopelessly verminous. Often they are rat infested. The sanitary arrangements are disgusting. In many cases privies are still in use.

THE DAILY EXPRESS

MY PLAN FOR THE SLUMS

By ALFRED C. BOSSOM, M.P.,

The Well-known Architect

I HEARTILY agree with the summons of the "Daily Express" to "dynamite the slums." Let us see how it can be done.

Very clearly the first thing needed is land. Where is it to be found?

My reply is that the land can itself be created. How?

By roofing in the open railway cuttings that are to be found all over the metropolis.

I have gone into this question pretty closely. I believe that in ten years from the first beginnings of operations on the railway cuttings we could break for ever the back of the slum clearance problem in London.

WHAT is more, by working to a clearly defined programme, we could carry out the task at a cost that would really enable the present tenants of the slums to be rehoused at rents they could afford to pay, and without the risk that overcrowding would bring back all the old evil conditions.

THE SLUM DRIVE: In the newspapers the demand for the abolition of slums is widespread; it must stand in the forefront of any policy of national reconstruction.

Thomas Wallis (of Wallis, Gilbert and Partners) whose paper on "Factories," read at a meeting of the R.I.B.A. on Monday night, is summarized on the facing and following pages.

R. I. B. A.

AUSTRALIAN SCHOOLS

The Secretary to the Board of Architectural Education has sent us the following notice :

In the announcement, dated November 17, 1932, sent to you to the effect that under the terms of the scheme agreed between the Royal Institute of British Architects and the Royal Australian Institute of Architects, the School of Architecture of the University of Melbourne had been recognized for exemption from the R.I.B.A. Intermediate and Final Examinations, and the School of Architecture of the Sydney Technical College had been recognized for exemption from the R.I.B.A. Intermediate Examination, it should have been pointed out that the Royal Institute of the Architects of Western Australia does not form part of the Royal Australian Institute of Architects. The Royal Australian Institute has no jurisdiction in Western Australia.

INTERMEDIATE EXAMINATION

The attention of candidates is drawn to the fact that the requirements for the R.I.B.A. Intermediate Examination Testimonies of Study have been revised, and are now as shown below. The revisions have been made in the paragraphs marked.*

The Testimonies of Study must consist, except where otherwise stated, of sheets of drawings, not less than 27 inches by 20 inches, neatly and carefully finished as follows :—

A.—The Orders. A façade or part of a façade of a building of recognised importance, showing the application of one or more of the Greek, Roman or Renaissance Orders of Architecture. Students must state their authority for the Order and the building, which should not be of recent design.

One sheet comprising a general drawing of the building, sufficient to illustrate the application of the Order or Orders, with section of the façade wall, and plans of the façade wall in the stories where the Orders occur.

One sheet of details of the Order or Orders.

*B.—FREEHAND DRAWING. Satisfactory evidence of his capacity to draw, which may be in the form of sketches.

*C.—MEASURED DRAWINGS. One sheet of measured drawings of an existing building or portion of a building, not of recent construction, to be selected by Candidates. Their plottings and sketches are also to be submitted. Care must be exercised to select a building of architectural merit, and such essentials as stone jointing, etc., should be clearly indicated. If Candidates are in doubt as to a suitable subject they should communicate with the Secretary to the Board of Architectural Education.

One sheet comprising a simple design based on the subject measured. Before preparing this sheet the Candidate should try to analyse the character of the subject measured and endeavour to express this character in his design.

D.—CONSTRUCTION APPLIED TO ELEMENTARY DESIGN. Working drawings of a domestic building of moderate dimensions, designed by Candidates, showing clearly the construction of floors, roofs, joinery, etc.

The quality of design will be considered and work not reaching a reasonable standard of simple design will be disqualified on that ground.

One sheet comprising general drawings to a scale of 8 feet to 1 inch.

One sheet comprising a comprehensive half-inch detail.

One sheet comprising some full-size details.

* Candidates are now required to submit *all* the Testimonies of Study together.

EXAMINATIONS IN INDIA

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final and Special Examinations in Bombay from April 21 to 29. The last day for receiving applications, which should be sent to the Hon. Secretary of the R.I.B.A. Examination Board in India, 43, Apollo Street, Fort, Bombay, is March 22.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute :

University of London Architectural Education Committee : Messrs. W. H. Ansell (F.) and A. H. Moberly (F.), were re-appointed to represent the R.I.B.A. on the University of London Architectural Education Committee.

Fire Tests for Building Materials : Messrs. P. J. Black (L.) and R. Minton Taylor (F.) were appointed to represent the R.I.B.A. on a conference set up by the Department of Scientific and Industrial Research to discuss the establishment of a fire testing station.

Timber Conference : Mr. G. N. Kent (L.) was appointed to represent the R.I.B.A. on a timber conference set up by the British Standards Institution to discuss the preparation of a series of nationally-agreed standard commercial specifications for Empire timbers to facilitate inter-Empire trade.

National Association of Water Users : Mr. R. J. Angel (F.) was appointed to represent the R.I.B.A. on the National Association of Water Users in place of Mr. E. J. Sadgrove, who has resigned his position owing to ill-health.

Comité Permanent Internationale des Architectes (British Section) : The following were invited to serve as members of the British Section of this Comité : Sir Giles Gilbert Scott, R.A. (F.), and Messrs. E. Guy Dawber, A.R.A. (F.), Robert Atkinson (F.), and H. V. Lanchester (F.).

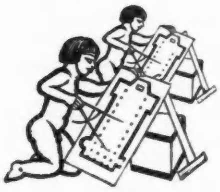
Transfer to the Retired Members Class : The following members were transferred to the Retired Members Class :

As Retired Fellows : Messrs. C. H. Morgan ; W. H. Raffles ; and Herbert Tooley. *As Retired Associates :* Messrs. L. Barlow ; J. P. Clark ; J. A. Woore ; and A. H. Worsley. *As Retired Licentiates :* Messrs. W. Cook ; J. Ellwood ; R. E. Haymes ; C. W. Maplesden.

Resignations : The following resignations were accepted with regret :

Messrs. W. S. Huxley (F.) ; S. Perks (F.) ; H. Bartle Cox (A.) ; W. G. Pidsley (A.) ; A. W. Bungard (L.) ; A. C. A. Cator (L.) ; T. J. Cullen (L.) ; W. B. Y. Draper (R.L.) ; H. T. Earl (L.) ; C. G. Fullford (L.) ; A. H. Kirk (L.) ; W. L. Lissaman (L.) ; H. W. H. Marston (L.) ; F. L. Sargent (L.) ; H. A. Sisley (L.) ; and L. M. Wells-Bladen (L.).

COMPETITION NEWS



R.S.A. INDUSTRIAL DESIGNS COMPETITION

Particulars of the tenth annual open competition of industrial designs, to be held at the Imperial College of Science and Technology, Imperial Institute Road, South Kensington, London, S.W.7, in June, have now been issued, and can be obtained from the Secretary of the Royal Society of Arts, John Street, Adelphi, London, W.C.2. Intending competitors must apply to the Secretary of the Society between May 1 and May 8 for the necessary entry forms, the last day for receiving entries being May 20. The designs will be received at the Imperial College of Science and Technology, Imperial Institute Road, S.W.7, between June 7 and 9, and after the judging, which takes place in July, the prize and accepted designs will be exhibited to the public at the Imperial Institute, South Kensington, S.W.7, from August 5 to August 31 (Sundays included). In all, scholarships and prizes amounting to about £1,500 are offered in connection with the 1933 Competition.

In the architectural decoration section, designs are invited for decorations for the vestibule and entrance hall to a cinema and for an airport refreshment room; decorative tile floor for the entrance hall to a public library; decorative metal and glass shopfronts; a public tram or omnibus shelter in concrete; memorials in Portland stone; sign for an inn; fireplaces; standard lamp; a lay-out of exhibition stands, an arrangement of exhibits of building and decorative materials, and a decorative glass screen for an international exhibition.

TOWNHILL CHURCH

The R.I.B.A. has issued the following notice:—

Members of the R.I.B.A. and of its allied societies must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

A SHOPPING CENTRE

The provision of a new shopping centre for Blackpool is foreshadowed by the decision of the General Purposes Committee to advertise for competitive designs for the layout of a site between the Town Hall and Church Street, which includes St. John's Market.

The Town Council have already decided to give notice to the market tenants, for whom a new market is to be erected in the Cookson Street locality.

Competitions Open

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First Prize, £50. Conditions etc., were published in *A.J.* for Feb. 1.

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street. W.1, from whom full conditions are obtainable. Premium: £100.

April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in our last issue.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

FACTORY PLANNING *AND* CONSTRUCTION

[By Thomas Wallis]

The following is a summary of the author's lecture delivered to the R.I.B.A. on Monday last

INDUSTRIAL architecture has a clear, unfettered birth, free from tradition, and I lay claim that it is the pioneer of the new style which I will name "Transgressional." Whilst this new-style influence is easily detected in nearly all new buildings, there is still the tendency to copy that great man who was born about 2,000 years ago, and who at that time so cleverly turned rough stone and other materials into beautiful, graceful and dignified buildings, whose christian name was Tuscan and whose surname Architecture.

Probably the greatest reason for copying is the desire to harmonize with surroundings; but if this is so, we shall never make progress—on the contrary, it will hamper our imagination and stop progress. A good, new, modernly-designed building will harmonize if you give it time to age.

It has to be appreciated that the capital cost of plant-installation and buildings is a burden against which dividends have to be paid, and therefore true economy must be foremost in one's mind from beginning to end. By this I mean that a penny piece must not be wasted; I do not mean that a penny must not be spent, providing it is wisely spent and is going to bear its part and use in the making of profits.

The word "economy" has been and is now being abused. The advice from many high quarters with regard to economy is painfully within the very near memories of all of us. In spite of the stoppage of so much municipal and private work, it is encouraging to think that new building of an industrial nature has expanded rather than contracted, an expansion which is largely due to one important factor—the passing of the Tariff Acts—which has brought many American and Continental industrialists down to the necessity of manufacturing their goods in this country.

MAIN TYPES OF INDUSTRIAL BUILDINGS

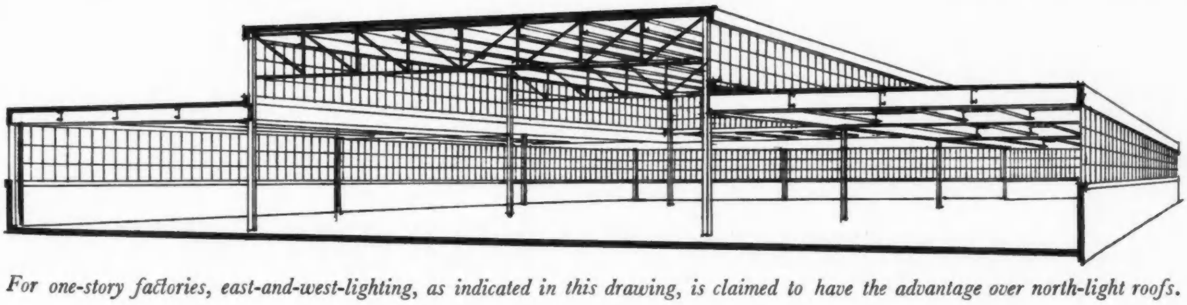
Industrial buildings may be roughly classified under three headings, as follows:

The one-story building,
The multi-story building, and
A combination of the two.

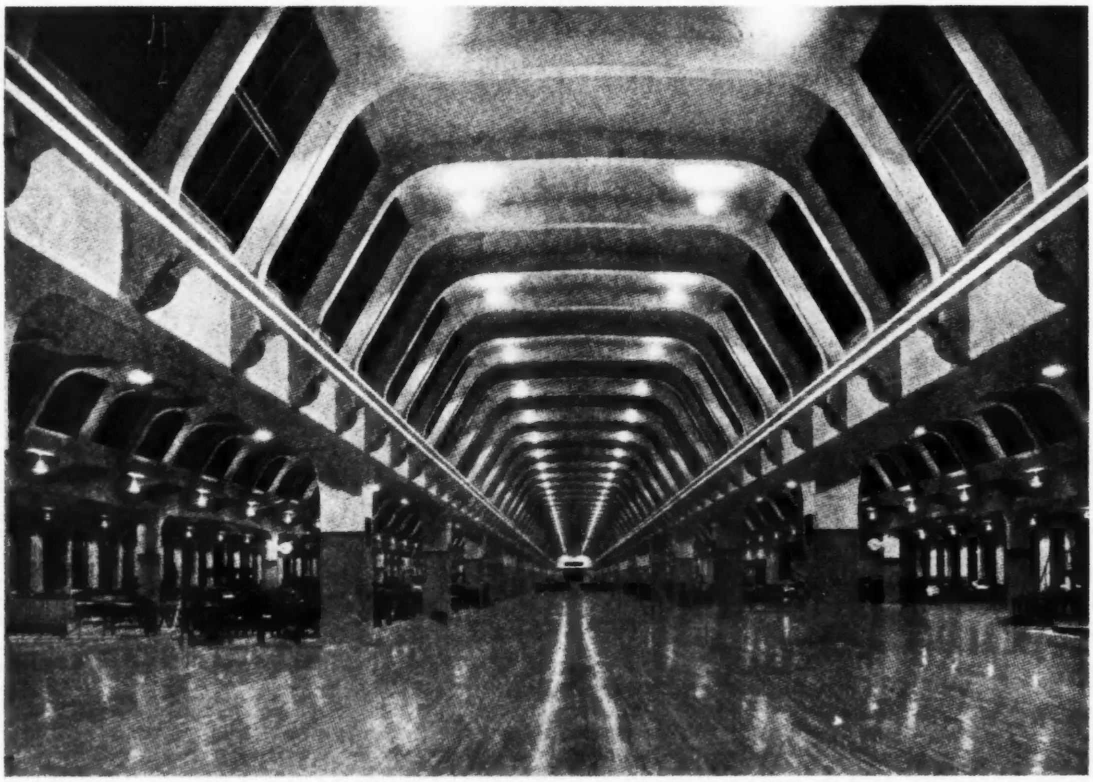
Generally it is found that the larger factory has to be constructed on the last of these three schemes, for varying reasons. It may be that there are heavy components to be dealt with which can only economically go on the ground floor. For foundries, forge shops and heat-treating plant, the one-story building is also employed, but where an article can be more readily moved by means of conveyors or gravity chutes it is found that a multi-story building is advantageous.

Take, for example, the manufacture of artificial silk or even paper. The raw material is conveyed or pumped to the top of a high building, whence it gravitates or chutes from floor to floor until the manufactured raw material is available on the ground floor, where it passes through a one-story building for its actual manufacture into the finished article, at the end of which process it is often found profitable to enter into the finished goods store in the form of a multi-story building. Even when land is cheap this form of building is advisable for many articles of manufacture.

Factories for the manufacture of motor



For one-story factories, east-and-west-lighting, as indicated in this drawing, is claimed to have the advantage over north-light roofs.



The Ford Experimental Building, Dearborn, Detroit: By Albert A. Kahn. An example of an American type of roof-construction which marked a departure from the use of north lights.

tyres, motor bodies, etc., are far better dealt with on one floor, as the gravity system is barely practicable, but in practice every form of manufacture has to be dealt with on its merits. In designing single-story buildings you will find that, as far as possible, works managers like full open areas of floor space without obstruction, and, in order to meet this, we have found it advantageous to elevate such things as lavatories, cloak rooms and works offices to occupy space in the roof. This form of accommodation is also economical.

ONE-STORY BUILDING ROOFING

To deal now with the various types of one-story buildings, the generally accepted practice in Europe is to use the north-light type, with a clear height of anything from 12 ft. to 15 ft.; and if this roof is to be used with economy, one should be careful to look after the proportion of glazing to floor space. The minimum of glass and the maximum reflection from the underside of the south slope should be adopted, as this method reduces and conserves heat. I have seen many factories of this type with an over-proportion of glass and less effective lighting, simply through bad design.

This form of roofing has its disadvantages, and unless a considerable amount of money is spent on its construction it is not wind- or dustproof, and it does not lend itself to proper ventilation in all weathers. In America they consider this type of roof obsolete, and they have adopted other types of construction, such as the butterfly truss, since they claim that this gives better ventilation and even better lighting. They have carried out tests and are said to have proved that when the intensity of light varies, and when the direction from which the light enters the building also alters, east and west lighting is better for the eyes of the operatives than north lighting. If the rays of the sun are a disadvantage, they can of course be diffused by the use of prismatic or ribbed glass. I am myself convinced that there are many advantages to be obtained by the admission of the rays of the sun into the building.

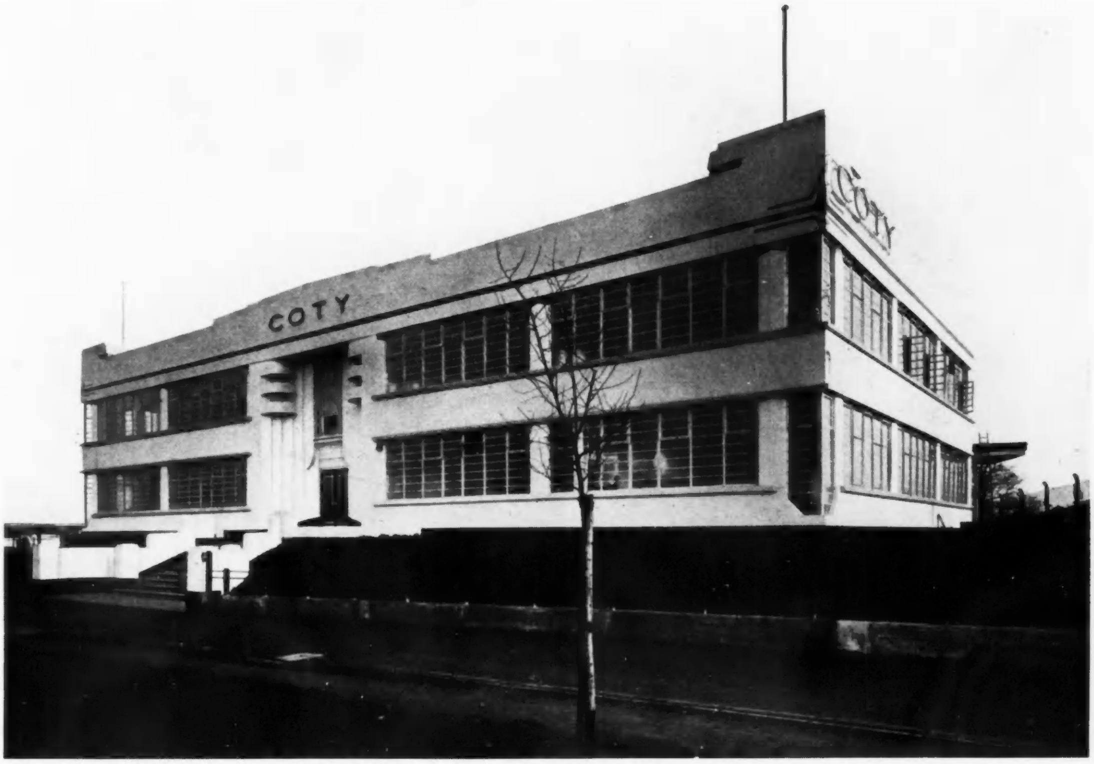
I have not used this type of truss in this country, but have adopted a simpler form of roofing for east and west lighting, and it has proved to be very satisfactory under working conditions and is definitely dust- and wind-resisting and gives better ventilation. This type of roofing can be seen in the Packard and Coty factories in the Great West Road, but its use is limited to a width in the building of about 140 ft. If it is essential that the roof has to be entirely weatherproof, this type of construction is definitely cheaper than a north-light truss, whilst the cleaning of the roof is simpler and the internal appearance infinitely better.

Where large open areas free from columns are necessary, it is easier to adopt the north-light truss type of construction than any other, as spans up to 200 ft. are economically possible. Lateral supports are obtained by a deep truss running from the apex to the tie beam, the only disadvantage being that this somewhat affects the reflection of the north light, but, to overcome this, it is quite possible to have this main truss on an angle and enclosed in the south slope. I have not tried this form of construction, but it can be seen in Germany, where large open areas are contrived without any visible means of support.

FLOORS

The one-story building readily lends itself to departmental extension and, providing spare land is sufficient, without interference with the original layout; moreover, the work can be carried out without interference to the progress of manufacture. External walls should be weatherproof, but of light construction, so as to make them readily removable, and all roofs should be constructed for easy extension.

It is a long subject to deal with the various types of floor, since each manufacture has to be dealt with on its merits. The commonest form of finish is granolithic. But unless properly laid to latest methods and put to heavy use, its life is under twelve months. These floors can be constructed so that they will not hollow and will not wear; wearing generally is the result of hollowness. Where the wear is extraordinarily heavy, even the latest methods of granolithic laying will not stand, and the only satisfactory form of floor for such conditions is the ordinary type of steel plates firmly bedded into concrete. It is a fallacy for works managers to maintain that granolithic floors are cold for the worker who is seated at his task. They only have the appearance of being cold, and as soon as the worker is persuaded that they are not cold he will readily agree.



The Coty perfumery factory, Great West Road, London: By Wallis, Gilbert and Partners. In this building the east-and-west-lighting described in this article has been adopted.

Where the floor area is to be occupied by a large number of small machines, then granolithic is unsuitable and some form of wood block or planked floor should be adopted, where plant can be readily screwed down, always providing that, if wood blocks are used, the plant movement is insufficient to move the blocks.

Let me take one other form only of floor construction—that which has to stand up against the effects of various types of acids or other material injurious to cement. Should the acid be of very great strength, and it is necessary for heavy loads to stand upon or to be moved over the floors, I know of nothing other than blue bricks, pointed up with sulphur, that will stand up to the job. Where the acids are of weaker strength, there are many forms of acid-resisting asphalt which can be used; and where temperatures are high or loads somewhat heavy, this asphalt can be strengthened by the incorporation of granite chippings. One further word on acids—be careful with all your metal work in a building where fumes are prevalent. If the strength of the fumes is great, wooden sashes are often necessary, and in places it is often advantageous to adopt the new form of welded roof truss as against the ordinary type of bolted construction.

THE MULTI-STORY BUILDING

It is unnecessary perhaps to say that the effective width of the multi-story building is somewhat dependent upon its height and the ability of the light to reach to the centre. In many cases, however, multi-story buildings can be wide, providing space is essential for the storage of goods, in the centre of the building. Height, floor to floor, is dependent upon many things. Generally speaking, this varies from 12 ft. to 15 ft., whilst the percentage of window space to floor area runs from 30 per cent. to 35 per cent. Big spans in multi-story buildings have to be avoided as far as possible on account of cost.

The various forms of construction adopted are common knowledge, and therefore the only one I will touch upon is the American mushroom type, now fairly universal both in England and on the Continent in various forms. This type, on account of its unbroken ceiling surface and continuous lighting, allows for greater width of building, and where specially heavy loads have to be carried and where large spans are not necessary it is a form of construction that is cheaper than the more ordinary forms.

The extension of multi-story buildings can be arranged upwards for storage or administrative buildings, but where the buildings are used for manufacture extension should, as far as possible, be arranged by a lengthening of the building.

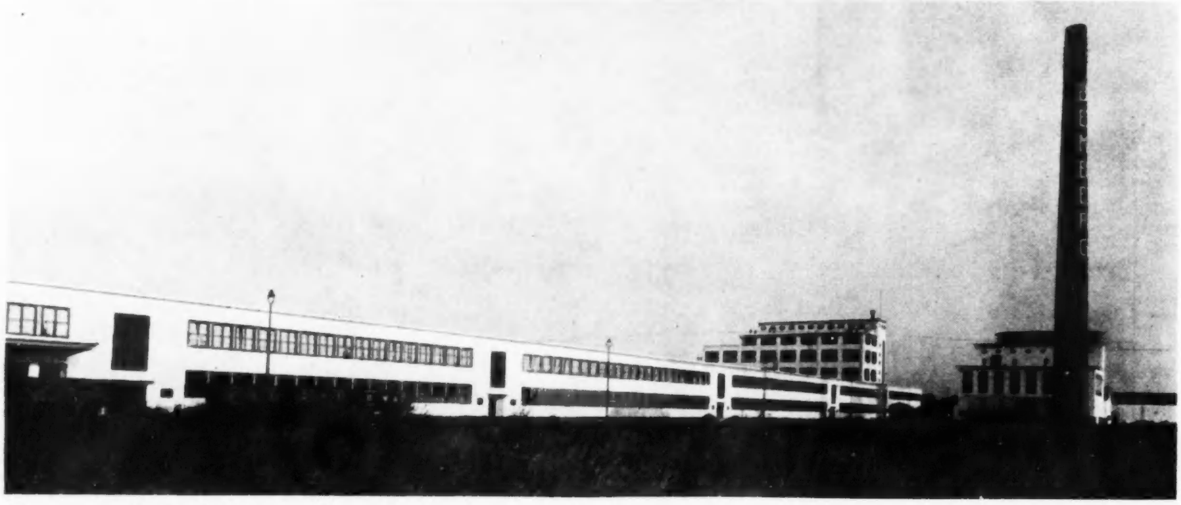
Where reinforced concrete or concrete encasement to steel is adopted, care must be taken in the construction to incorporate holes and inserts so planned that most forms of plant can be attached to the fabric without the necessity of continual cutting away from time to time. These attachments can also be used for easy suspension of services and sprinklers.

THE FACTORY FAÇADE

The industrial architect should, without extravagance, endeavour to give a pleasing effect to his façades, relying as far as possible upon the necessary planning and layout for good and proportionate lines. A little money wisely spent in the incorporation of some form of decoration, especially colour, is not money wasted. It has a psychological effect on the worker. Moreover, an attractive design is good advertisement, more especially where the manufacture depends for its existence upon the public. A properly conceived and well designed façade on a main thoroughfare will give proportionately better results than that obtained from the large yearly expenditure so often incurred in usual advertising.

SITE

The question of site is dependent upon so many things relative to the manufacture that it is difficult to give much useful information. An architect should, in the selection of a site, take responsibility only for its merits in relation to building costs; he should, however, be sure that public services are economically available. I do, however, impress upon industrialists the necessity of allowing ample room for extension to their plant, and, certainly before a site is actually purchased, of obtaining the architect's views, and also his plans for the complete development of the site.



Two views of the Bemberg factory, Doncaster: By Wallis, Gilbert and Partners. That above illustrates a combination of single-story and multi-story planning; that below, the seemly appearance of such necessary factory adjuncts as conditioning towers.

CONTRACTS

The Conditions of Contract as in general use are applicable to normal factory construction, but it is sometimes necessary to make slight alterations and insert additional clauses to deal with circumstances somewhat peculiar to this type of work.

Once an industrial firm definitely decides to build (after the basic principles of layout and cost have been settled), the most important questions are speed of construction, and dates of completion and of occupation, and these points must be fully covered in the Conditions of Contract and Specification.

In the first place, it is in the interests of speedy execution that a clause providing for bonus payment for early completion be inserted, as well as a damage clause for late completion, and better still if the amount of daily or weekly bonus for early completion is in excess of the daily or weekly amount, assessed as liquidated and ascertained damages, usually called a penalty. The insertion of bonus and penalty clauses alone is not sufficient. An industrial firm requiring a factory by a certain date is not primarily concerned with the penalty or bonus, but essentially with getting the buildings at a specified time, as they have to arrange for the machinery and installation of plant, which sometimes takes as long to erect as the building itself.

It must be appreciated that machinery and plant are ordered for delivery at a specified time, and apart from the cost of double handling, storing, etc., of the machinery, the upsetting of their programme of machinery installation is a costly matter and may have far-reaching results from the production aspect.

An additional clause should therefore be inserted in the contract to give the architect power to demand acceleration of any part or parts of the structure which are behind schedule. I will term this clause the "acceleration clause," and this should cover the contractor providing additional labour, extra or better plant and more materials, and also the working of overtime or shift work as may be required from time to time by the architect.

The wording of the completion date clause or clauses should incorporate the working to sectional progress charts. A progress chart or schedule should be prepared for each section of the work, and should be sub-divided under various trades and operations, and these sectional progress charts should collectively arrive at the contract date or dates.

PROGRESS CHARTS

These progress charts, if properly prepared in the first instance, are of immense value throughout the progress of the work, not only to the architects, but to the general contractor and the sub-contractors. They are also essential to the proper interpretation of the " acceleration clause " to which I have previously referred. The progress charts should be prepared jointly by the architect and the contractor and should be very seriously considered before they are finally arranged.

Apart from normal progress, they should take into consideration the following :—

(a) The fact that certain buildings or sections are more complicated than others.

(b) The necessity of completing certain parts before others to enable heavy or intricate machinery or plant to be installed whilst other buildings are being completed.

(c) The harmonious working of the installation of services such as electrical power, process steam, compressed air, water, gas, heating and the like.

In conjunction with the progress charts, the contractor should provide for the taking of progress photographs. These will be found useful not only as a pictorial record of the progress, but for reference purposes at completion, when matters arising out of progress, bonus, penalty, acceleration and other clauses are finally settled.

STORAGE OF MANUFACTURERS' PLANT

Another clause which should be incorporated provides for the factory owner being allowed to bring in, store or erect plant, shafting, machinery, etc., at his own risk, when any part or parts of the buildings are in a fit state to receive them, before they are finally completed. This clause may safeguard the contractor against being impeded in his own work or being caused extra costs. The architect should be specifically nominated as the sole judge as to whether the factory owner may or may not enter the building to erect the plant, machinery, etc.

When the building is in the form of an extension to an existing factory, clauses should be inserted in the contract according to the circumstances, and the following might be particularly mentioned :—

(a) The contractors may be required to submit to the factory owners' regulations, including checking in and out and submission to search, e.g.—the latter stipulation would arise in factories in which precious metals are used.

(b) The building work must not impede or unduly inconvenience the factory owner in the carrying on of his manufacturing business.

(c) The contractor must protect not only the existing buildings from injury and damage, but also the factory employees from injury from the building operations.

(d) There are, of course, other clauses of this nature, but these are generally referred to in the standard Conditions of Contract.

SEPARATE CONTRACTS

Although it is generally an advantage to have the whole of the building work under one main control and responsibility—namely, that of the general contractor—it is sometimes preferable and occasionally economical to separate certain sections or trades for execution under individual contracts. The latter method can be recommended for very large factory works where speed is the essential factor.

The success of this method is mainly dependent upon the efficiency in drawing up the progress charts, the proper interlacing of the various separate contracts and keeping the various contractors strictly up to time throughout the whole progress of the works.

HEATING AND VENTILATION

No hard and fast rule for the method of heating and ventilating to be adopted can be laid down, as many varying conditions are required to be met in connection with different industries. For example, a heating system designed for a factory in which the work is of a heavy nature, requiring considerable physical effort, would prove totally inadequate for a building where work of a sedentary nature is carried out.

In several factories, where steam has been available for process work, I have utilized the excess or waste steam for heating with considerable success and also the achievement of great economy. A uniform and comfortable warmth is provided by heater units which consist of a heating element or battery enclosed in a casing over which the air is delivered by means of an electrically driven fan.

Control of the heat emission from the units can be effected either by a thermostat operating the fan switch or fitted on the steam supply. The type of unit provided can be conveniently suspended from the roof trusses or fixed on the walls or stanchions.

In several large factories carried out under my supervision accelerated hot-water heating is installed, serving a series of unit heaters, and from this method of warming, good results have been obtained. From my experience, however, I have found that a certain amount of direct heating either by radiators or pipe coils is advisable, enabling the fans on the heater units to be switched off during the night time, the radiators provided being of sufficient capacity to temper the air in the building ; thus during the night it is not essential to run any mechanical equipment.

Wherever possible, I endeavour to avoid the use of any system of warming which necessitates large ducts or metal trunks, as from experience it is found that, unless the trunks are constructed of sufficient size to allow of regular cleaning, they become dust-laden and unhygienic.

The Mansion House

" The Story of the Mansion House " was the title of a paper read by Mr. Sydney Tatchell at a meeting of the London Society on Friday last. " In common with all who attempt to tell any story of the Mansion House," said the lecturer, " I have delved into Mr. Sydney Perks's *History of the Mansion House*, a work representing a vast amount of labour and research in the past of one who not only was the City's Surveyor for over twenty years, but who may faithfully be recorded as having, by his unexampled knowledge of the fabric, prepared the way for its reconditioning. To him is chiefly due the credit for the plans which were carried out." Mr. Tatchell then recounted the story of the home of the Lord Mayors of London, from the time it was first decided to erect the building—in 1734—up to the present day. A large part of the paper was devoted to its reconditioning, which was possible only by the public-spirited action of Sir Phené Neal, who relinquished his privilege of residing in the Mansion House during his term of office (1930).

Liverpool Cathedral

Sir Edwin Lutyens, whose plans for the new R. C. Cathedral in Liverpool have been passed by the corporation of the city, says the building will take " anything from 40 to 400 years " to complete.

West Yorkshire Society

Mr. B. R. Gribbon, F.R.I.B.A., presided at a meeting of the above Society, held on February 16, at Halifax, when a lecture on " The Sense of Harmony " was given by the Hon. Humphrey Pakington. He said that to argue that the present state of our civilization was discordant with nature was surely not a tenable proposition, especially when they thought of those Roman equivalents of modern civilization, the fourteen great aqueducts striding across the Campagna. These were now thought to be an adornment to the landscape, but the present-day electric pylons, distributing comfort and wellbeing to the villages of England, were described as scars on the face of the countryside.

He was not going to pretend that electric pylons were as beautiful as the Roman aqueducts, but at least they might try carefully to analyze the æsthetic possibilities of a pylon, or a petrol pump, before condemning them as things inimical to their surroundings, and endeavour, by redesigning them, to bring them into harmony with their environment. Was it too much to hope that our descendants would look back with awe and admiration at the ruined pylons of the twentieth century ? He was trying his best to combat the idea that the works of industry must inevitably be regarded as inimical to the landscape.

New Academician

Mr. W. Curtis Green, A.R.A., F.R.I.B.A., has been elected to the rank of Royal Academician.

The Architecture Club

At the Architecture Club on Friday, February 17, the discussion was opened by Mr. R. A. Duncan, A.R.I.B.A., who showed that the first three periods of architecture—Classic, Mediæval and Renaissance—are governed by the hand tool, and that the fourth period—Twentieth-century Architecture—is a product of the power-driven machine tool—an architecture without precedent.

Standardization is a necessary concomitant for economic reasons, but is not a new thing and does not necessarily lead to monotony. Bricks have always been standardized, but variety has been obtained in brickwork by the intelligent use of a standard unit to produce form and colour-pattern—diaper work. The Greeks had three standard columns, six standard mouldings and six standard plant forms, no more.

Mr. F. E. Towndrow, A.R.I.B.A., supporting the cause of standardization, spoke of his own attempts to produce an adjustable " voluter " to simplify and standardize the detailing of Ionic caps, and suggested a Lutyens's " Proportioner," a Baker " Balustrader " and a Blomfield " Swagger " which would produce swags for application to buildings of any period, excepting, of course, Regency.

ON THE AIR

The next discussion in the B.B.C. series of talks on " Other People's Houses " will be broadcast in the National Programme on Monday next, February 27, at 9.20 p.m. The subject is " How are we to provide for the lower-paid worker ? " and the speakers are Mr. H. R. Selley, M.P., and Major Harry Barnes, F.R.I.B.A., F.S.I.

LETTERS FROM READERS

L. J. REDGRAVE CRIPPS, L.R.I.B.A.
J. C. HALLAM
W. H. ANSELL, F.R.I.B.A.
R. TILSLEY GREEN, A.R.I.B.A.
EDWIN GUNN, A.R.I.B.A.

Unemployment

SIR,—Although it may be true that in an ideal State, inhabited by supermen, unemployment will undoubtedly be regarded not as a tragedy but a triumph of civilization, yet we certainly have a very long way to go before reaching anything approaching this happy state of affairs. In the meantime unemployment must necessarily remain a very real tragedy for the individual and a very real danger to the State.

At present, in spite of our much-vaunted educational system, very few people indeed have the individual ability or capacity to benefit by leisure. Abundant leisure invariably spells decadence—this can be seen on every hand and in all classes of society, especially in the ranks of the idle dole drawers at both ends of the social ladder. Leisure (or unemployment) to them is anything but a " triumph." To the vast majority a leisured life is just more or less boredom, in spite of various artificial stimulants.

Therefore, with conditions as they are, the obvious necessity of the age is to attempt a little foresight, intelligent anticipation, and a little rational planning in the direction of race culture, so that in future we may become capable of intelligently using, instead of ignorantly abusing, the leisure with which science is endowing us.

But what actually is being done, or even attempted, in this direction ?

Nothing.

We live in a world that has become obsessed with a passion for quantity, regardless of quality.

This is proved most graphically by Dr. Neurath's picture statistics, which you published in your issue for February 8, showing the extraordinary increase in the population. Each and every day there is a net increase of no fewer than 50,000 people (largely defective) on our little planet. In the normal lifetime of many of us the world's population will have doubled itself.

The problem of providing for this ever-increasing mass of humanity is intensified by the fact that fresh labour-saving robot machinery is continually being devised for eliminating human labour. Concurrently with all this development of labour-saving machinery we have fresh " social reform " legislation of a purely palliative nature continually being devised, but which is purely "ambulance work," rendered necessary by the huge and ever-increasing masses of displaced human labour. There is absolutely nothing of a preventive or socially constructive nature in this legislative ambulance work. Incidentally, the more successful it is, the greater the future increase in the already overburdened population. And thus the vicious circle is completed.

What is the use of us architects concentrating on town planning if we neglect the all-important foundations in the shape of world planning ? Surely this is a work, the preservation of our civilization and culture, which now demands most urgently our attention? As your correspondent Mr. A. W. Wyatt remarks, we want less " sentimental tosh and tripe," and more realism, more foresight, more sound constructive vision, and more wide-scale planning.

L. J. REDGRAVE CRIPPS

The Real Truth

SIR,—I feel that I must protest against your journalistic methods in connection with the Carlton House Terrace controversy.

Why did you not give the full facts, which are now disclosed by Sir Reginald Blomfield at the Authors' Dinner ?

I do not complain so much that you omitted to mention that the interior of the houses are vulgar ; we all know that the rich have vulgar tastes, and dark houses may be an advantage in these days of servant difficulties.

But, to hide the real point that matters is a different thing. Had we known the real truth—that the Doric columns were hollow, and cast iron at that—could you really have claimed our support ? The very thought that I have defended these buildings brings shame and remorse to me.

If Nash has used cast iron for a Greek column, I shudder at the prospect of hearing what he used for his Roman Corinthinian.

I feel, however, I shall be able to admire the new building now going up. This will be solid stone—no deceptive brick backing carried by steelwork, such as I feel Nash would have built today.

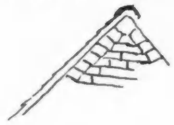
Sir, we ask for truth in architecture. Is it not more important that we should be given the full truth in journalism, so that at least we may be saved from the awful risk of admiring a cast-iron column.

It has been suggested to me that if all speculations for the improvement of London were carried out as well as Nash carried out his, it might be a better place. But of course this is absurd.

" NO LONGER CAST IRON "

The Winchester Cut

SIR,—In reply to Mr. Fagg, I think he has in mind the old method of cutting tiles to the raking verge of gutter as sketch enclosed, where the two tiles at the extremity of each course are cut to wedge shape. This avoids the use of small pieces of tiles.



J. C. HALLAM

A Scale of Wages

SIR,—During the present economic depression many practising architects seem to be taking advantage of the difficulty that others, less fortunately situated, have in obtaining employment by giving their assistants a mere pittance for salary.

Much has been said of the R.I.B.A. Scale of Professional Charges, but no suggestions have been put forward for a Scale of Wages for qualified assistants. Is it not time that the whole question of " sweated labour " in the profession was made the subject of enquiry and the injustice rectified ?

As qualified assistants, the writers of this letter have had full experience of this deplorable state of affairs and do not write for the sole purpose of finding themselves in print.

Therefore they sign themselves,

" UNDERNEATH THE ARCHES "

Information Sheets

SIR,—May I suggest that when the Information Sheets you are publishing, by the kind permission of Sir John Burnet, Tait and Lorne, are completed, you should yourselves carry on the good work by the preparation of further sheets for this particular purpose.

The presentation of such useful information in so clear and efficient a manner must save an enormous amount of time in the average office.

The thanks of the profession are due to

you and the architects, Sir John Burnet, Tait and Lorne, for this latest evidence of the vitality of THE ARCHITECTS' JOURNAL.

W. H. ANSELL

SIR,—The Information Sheets are splendid. All that is needed now is for you to get out a folder or file in which to keep them!

Would it not be a help to have them ready holed for filing?

The information they give is just what one wants and often spends endless time in searching for.

I look forward to having the complete series.

R. TILSLEY GREEN

House by Edwin Gunn

SIR,—In my letter (*A.J.*, for December 14) referring to Mr. Alan Fortescue's claims for the flat-roofed house, I promised to produce particulars of a house on conventional lines which should demonstrate that low present-day cost was not dependent on novel forms of construction.

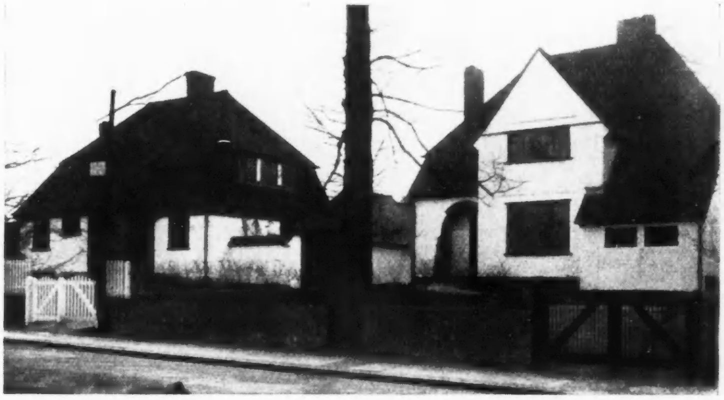
The enclosed plans and photographs are my evidence. I also append details of the cost, materials, etc.

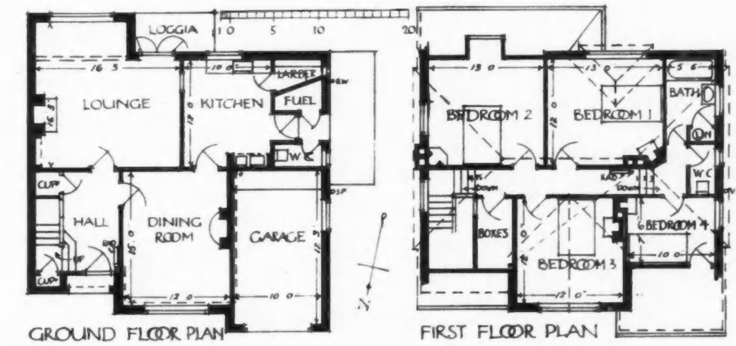
EDWIN GUNN

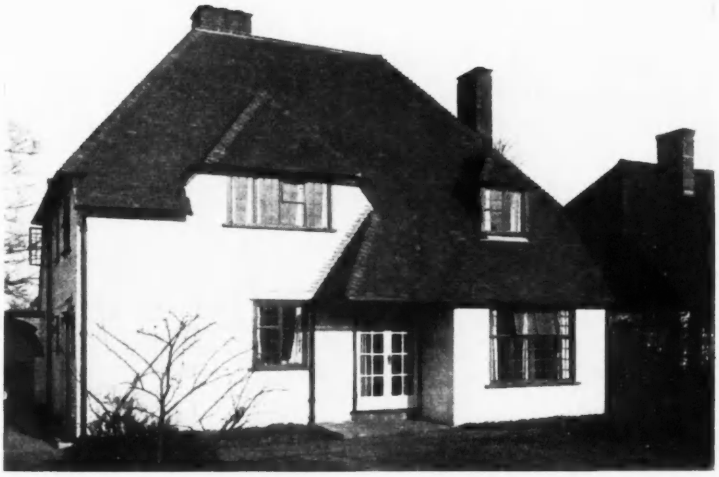
This house, recently built at a cost of only a trifle over £900, has a rather unusual plan owing to the joint causes that the width of the site was only barely adequate; that the client laid down exactly the relative positions of the rooms; and that, from the level of the land in relation to the road, access to the garage was difficult to contrive. The walls are of stock brick with a cavity, whitewashed externally, and the roof is covered with hand-made tiles laid over untearable felt. The windows are metal casements in wood surrounds, painted bright Brunswick green. A boiler and dual copper cylinder supply hot water, and there is a heating circuit with two radiators. The garage is warmed by the main flow and return pipes on the radiator circuit, which can be shut off by a valve when required. The hall is floored with oak blocks, other floors with narrow grooved-and-tongued boarding, and all rooms have specially-designed fireplaces, that in the dining room being of 2 in. bricks and those in other rooms of tiles with wood mantels. The loggia roof, formed without posts or brackets, by running the floor joists through the wall to join the eaves, may be noted.

[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]

HOUSE BY EDWIN GUNN





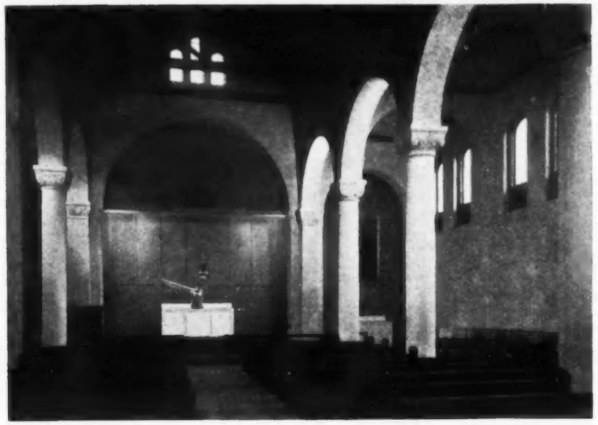


This £900 house, says Mr. Gunn in a letter on this page, demonstrates that low present-day cost is not dependent on novel forms of construction. The house shown on the left of the upper photograph, built by Mr. Gunn in 1924-25, has just been completed by the screen wall and garage in conjunction with the new house on the right. Below is seen the garden front. The materials are given in the letter.

Change of Address

The partnership that has existed between Mr. Mitchell C. Kay, A.R.I.B.A. and Mr. L. Gordon Lunan, A.R.I.B.A., under the style of Kay and Lunan, has been dissolved by mutual consent. Mr. Kay will continue in practice at 15 Wood Street, Wakefield. Telephone No.: 2404.

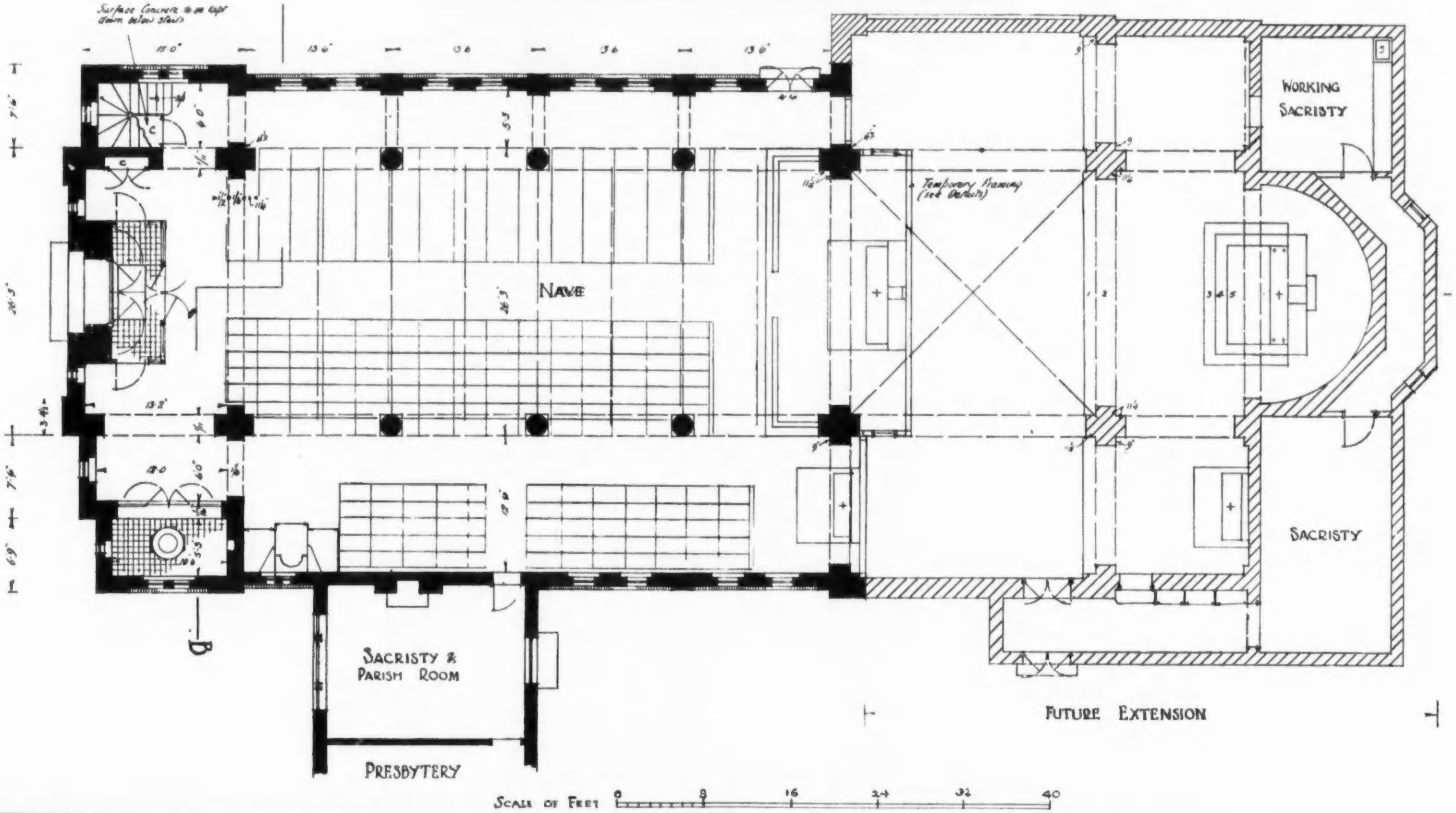
CHURCH OF ST. LAWRENCE, FELTHAM, MIDDX. : BY THOMAS H. B. SCOTT

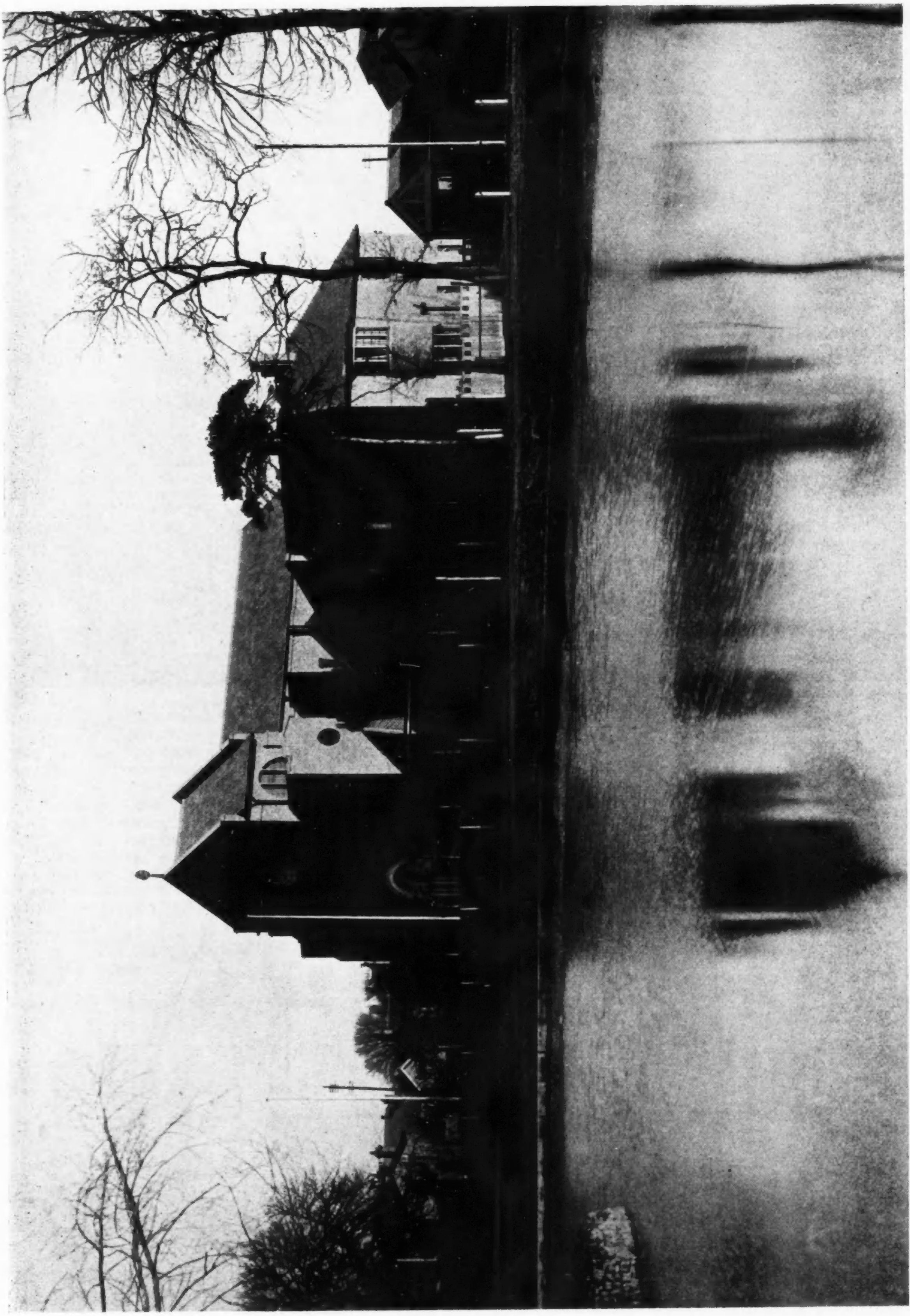


The building here illustrated is the first and major part of a church intended to accommodate 500 worshippers; transept, sanctuary and altar chapels, in the cruciform plan, are left for future development. The front is now complete, and the nave and aisles—a narrow, processional one on the south; the northerly one forming the side chapel of Our Lady—terminate in the lofty arches of the future transept. A temporary closure on a line behind the present high altar is formed with panels. Choir and organ gallery are over the entrance, and nearby is the baptistry, with font of Portland stone and railings and gate of wrought iron, and jewel-like stained glass windows, in the Chartres tradition—the work of John Trinick. The aisle windows are placed high, but there is no clerestory: the lighting is thus soft and diffused.

Fourteen plain blocks of stone ashlar are built into the walls, for future sculpturing with the Stations of the Cross. Heating and concealed lighting are by electricity. The benches, in Columbian pine, were designed by the architect.

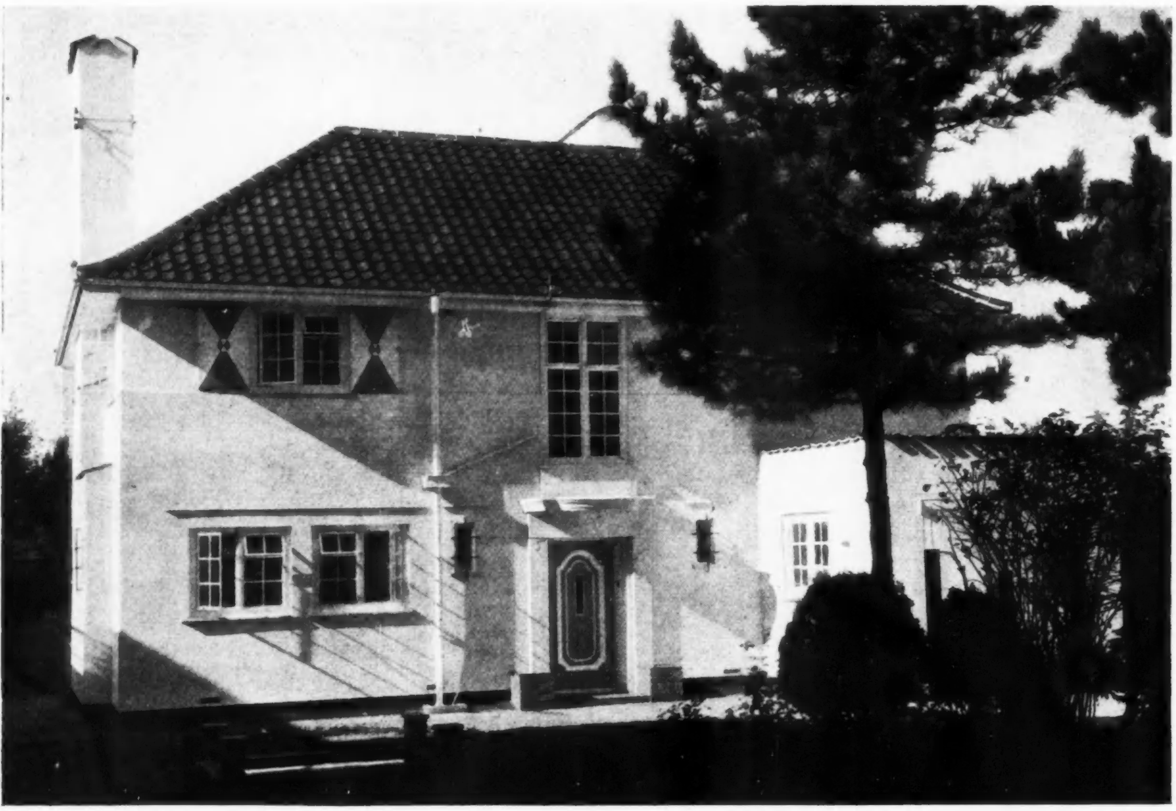
Externally, the walls are finished with multi-coloured purple-red facing bricks, the front and higher portion being surmounted by a finial cross of stone. The roof is of Roman red tiles, in harmony. The entrance is of white Portland stone, enriched with carving by P. Lindsey Clark, A.R.B.S., who has also collaborated in the case of the font and other interior sculptures. The present building, with furniture, has cost about £7,500.


Surface Concrete to be kept down below stairs
NAVE
Temporary Framing (see Details)
WORKING SACRISTY
SACRISTY
SACRISTY & PARISH ROOM
PRESBYTERY
FUTURE EXTENSION
B
SCALE OF FEET 0 8 16 24 32 40



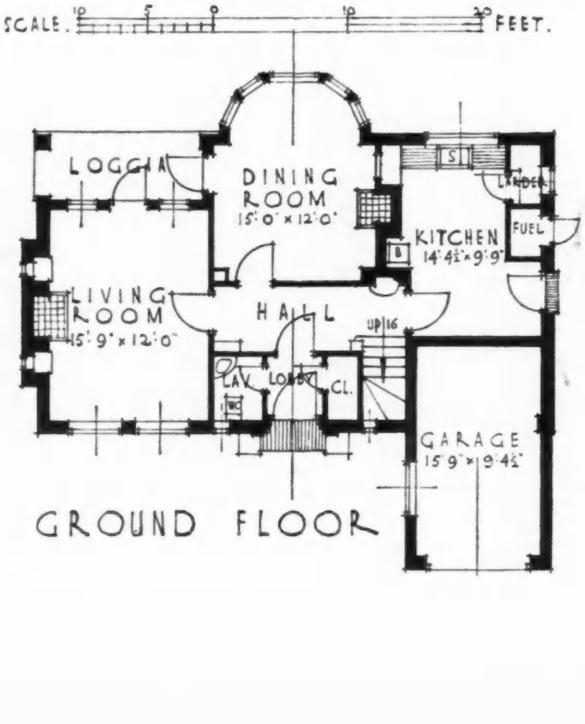
The completed portion of the new church, showing the main front.

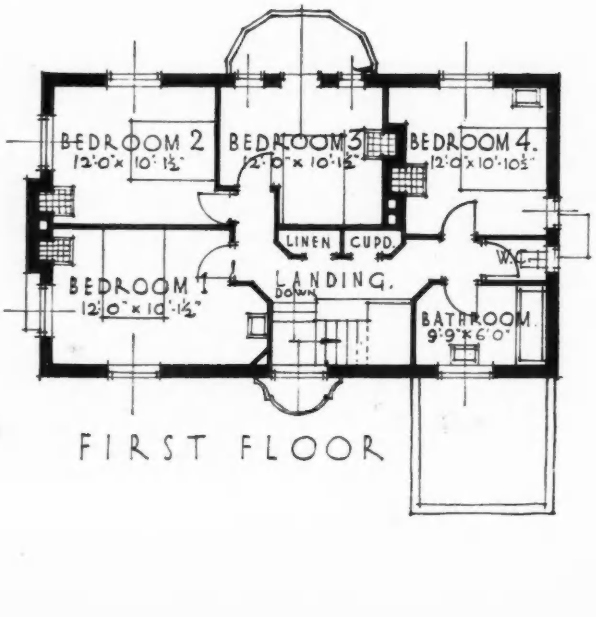
HOUSE AT LOWESTOFT: BY ALAN H. DEVEREUX



Forton House, St. Peter's Road, Lowestoft, was designed for a site about 50 feet wide, the aspect being nearly due north. The ground was already developed as a garden with lawns, shrubs and a few Scotch firs, and in order to preserve as much as possible of the natural surroundings it was decided to place the house about 70 feet back from the road, with the garage facing the front. The two living rooms and kitchen have a southerly aspect, overlooking the garden at the rear. The small dining room is provided with a large bay. Four bedrooms are afforded, each sufficiently large to accommodate a double bed, and these are placed to get the maximum amount of sunlight.

The external walls are of 11 ins. cavity brickwork, finished in white cement stucco, the roof being of local black glazed pantiles bedded on reeds. The paintwork to the front door and the shutters is carried out in flame and white.


SCALE.
10
5
0
10
20
FEET.
LOGGIA
DINING ROOM
15'0" x 12'0"
S
LARDER
FUEL
B
KITCHEN
14'4½" x 9'9"
LIVING ROOM
15'9" x 12'0"
HALL
UP 16
LAV.
WC
LOBBY
CL.
GARAGE
15'9" x 9'4½"
GROUND FLOOR


BEDROOM 2
12'0" x 10'1½"
BEDROOM 3
12'0" x 10'1½"
BEDROOM 4.
12'0" x 10'10½"
LINEN
CUPD.
W.C.
BEDROOM 1
12'0" x 10'1½"
LANDING.
DOWN
BATHROOM.
9'9" x 6'0"
FIRST FLOOR

THE BRITISH INDUSTRIES FAIR, BIRMINGHAM

Last week we condemned the entire lack of planning of the Birmingham section of the British Industries Fair. The exhibits are crowded at random into a vast shed, without the possibility of effective display. And "since the exhibition has become a permanent institution . . . . why not," asked our special correspondent, Mr. F. R. S. Yorke, "scrap the whole thing and build again on modern lines? Why not a new hall for the next B.I.F.?"

NOTICES OF EXHIBITS

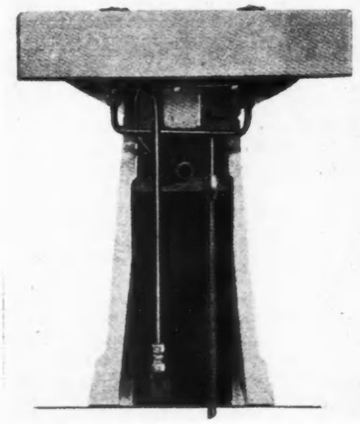
The Reymez pedestal lavatory basin, made by Messrs. Adamsez, is a self-contained unit designed to give a constant supply of hot water. A water-heating unit, comprising a copper storage tank of approximately 2½ gallons capacity, and an electric heater, is contained within the pedestal. A single connection only, for cold water, is required. The standard arrangement is suited to any low-voltage supply, and heaters of 0·5 kw. to 3·0 kw. are available, the choice of rating depending upon the service required.

*

Walter Macfarlane & Co. have a drain exhibit, shown in half-section. The pipes are treated internally with glass enamel, which is less costly than "acid-resisting" and produces a smooth, durable surface, ensuring an easy flow throughout the system, whilst preventing obstruction and corrosion.

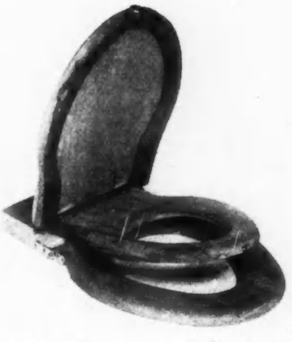
*

Messrs. Bratt Colbran's Tu Ways heater is a quite new form of portable electric radiator in polished rustless steel, with a single element, from which heat is projected in two directions at the same time—an evident advantage, enabling a greater number of persons to sit around the heater, and enjoy its warmth, than is permitted by the present type.


The Reymez lavatory basin, with an electric water-heating unit and storage tank concealed in the pedestal.

*

The wooden top of the old "sociable" two- or three-seater e.c. offered an advantage not possessed by the ordinary w.c. seat: it had apertures of varying size. The aperture in the modern seat is governed by the size of the average adult, with the result that children using it suffer from being thrown into an unnatural position. Some parents adopt a loose seat, but this is clumsy, unsightly and not easy to keep in position.


A three-piece w.c. seat incorporating a secondary—child's—seat, which, when not in use, is held firmly within the lid (patent applied for).

A Birmingham architect has invented a seat that overcomes the difficulty by incorporating within the flap a second seat of smaller size. This, when required, is released by a spring catch in the flap, and when the flap is dropped, after use, it takes up, within its thickness, the smaller seat, and holds it firmly, so that an adult can use the larger one in the usual way, without being incommoded by the smaller, which is automatically lifted with the flap.

A preliminary model is shown by Broughton & Co., who are to commence manufacture immediately.

*

In addition to flues for gas-fired appliances, Messrs. Asbestos Building Products, Ltd. are showing a range in a heavier grade material for slow combustion stoves. These pipes, being somewhat thicker in the wall, prevent the possibility of any chilling in the flue, which might tend to check the smooth upward flow of the products of combustion. The natural insulation in the wall of the pipe retains the heat in the flue, where it is wanted, instead of radiating it from the outer face of the pipe, as sometimes happens when metal is employed.

*

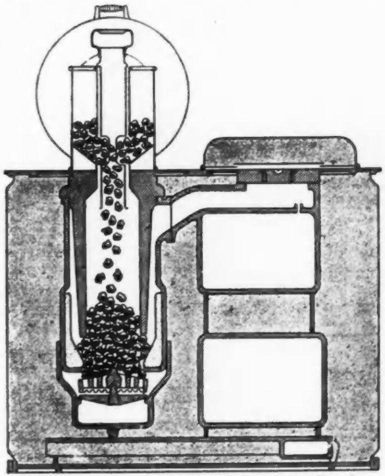
The Aga cooker, manufactured and marketed in England by Messrs. Bell's Heat Appliances, Ltd., is a remarkably efficient anthracite-heated cooking stove, which requires fuelling only once in twenty-four hours, and riddling twice daily. Combustion is quite automatic, and without further attention the fire remains permanently alight. Fuel is easily injected into the fire barrel by means of a patent container supplied by the makers, who state that fuel for a year costs no more than £4. The cooker provides a boiling plate, a simmering plate, quick oven, ordinary cooking oven, and a supply of hot water for cooking, dish washing, etc.

*

The Kleine Co., Ltd. are showing, in addition to standard sections of reinforced hollow brick construction, specimens of the material Duromit, made up in the form of pre-cast tiles, in several colours. Duromit is a flooring material that will stand up to severe wear, being free from attrition-dusting, and possessing remarkable non-slip qualities, which make it eminently suitable for industrial buildings, where such properties are essential to the surface floor. It was used in the floors of the machine rooms at the new *Daily Express* building.

*

The stand of the Educational Supply Association, Ltd., is built on two floors, in order that several types of folding doors, windows and partitions may be satisfactorily displayed. Esavian folding and sliding doors, specially adapted for garages, loading docks, warehouses, etc., are made for openings of any size, and have been used


A diagrammatic section through the Aga cooker, showing the operation of the patent fuel container.

to enclose aeroplane sheds over 100 ft. wide by 35 ft. high (patented).

In the Esavian Maxlite window, Patents Nos. 364,316 and 328,745, the sliding folding lights are formed from narrow wooden sashes, re-inforced with concealed steel angles. Steel glazing bars are welded into the frame, allowing a maximum of light to enter, and combining the rigidity of wood with the lightness and strength of steel. The movements are housed within the thickness of the leaf, and are thus entirely protected from the weather when the window is shut.

Folding steel-reinforced sliding wooden sashes, shown fully and partially open.

*

The floor of the stand of the India-Rubber, Gutta Percha and Telegraph Works Co., Ltd. is covered with Silvertown rubber flooring, and several new colours are exhibited for the first time. Particularly interesting is the Silvertown escalator rail, made from rubber and fabric.

*

Messrs. Dunlop show rubber floors and rubber blocks for road-marking and traffic rings. The possibilities of these blocks for factory floors and cowsheds are being emphasized.

In the Roads exhibit a section of road is laid with these blocks, and arrows and signs, built-up from them, are shown in conjunction with other types of road surfacing. Rubber units, 12 in. long, are delivered at the site of operations in the form of hollow casings, which the road contractor fills with concrete and beds into the road as desired.

*

The Ruberoid Co., Ltd are exhibiting Ruberoid, Starex and Pluvex roofing. Ruberoid is a high-grade bitumen roofing made in three thicknesses, for use on large commercial and industrial buildings, and is equally efficient on pitched, flat or curved, wood or concrete roofs.

Starex is a sound, medium-weight roofing, suitable for use on garages, large sheds, farm buildings and workshops.

Pluvex is a light-weight roofing for small buildings about farms, factories and so on. It also serves as a lining and rot preventer, under lino or concrete, and makes an efficient underslating for tiled or slated roofs.

*

The I.C.I. water-conditioning exhibit is a joint one, arranged between I.C.I. (Alkali), Ltd., and I.C.I. (General Chemicals), Ltd., the former dealing with water-softening and the latter with sterilization. It should be of especial interest to those connected with industries consuming large supplies of water, particularly power stations, paper mills, etc., to trades having obnoxious effluents, and to health authorities, water engineers and swimming-bath superintendents.

The proper conditioning of water is rapidly assuming greater importance, and it is interesting to learn that the L.M.S. Railway have erected a chain of water-softening plants along the whole of their main line system.

Running water is employed to illustrate the very small quantity of chemical necessary to ensure complete sterilization. Light is thrown on the insidious bacteria which threaten public health, and which are rendered innocuous by very simple treatment with chlorine or ammonia chlorine. The exhibits include models of chlorine dosage plants and other methods of applying the treatment.

The use of chemicals to soften and condition five main types of water for industrial purposes is illustrated by a detailed comparative exhibit. Of especial interest are specimens showing the beneficial effects of treated water on boiler tubes.

*

The British Electrical Development Association (E.D.A.) again occupy the kiosk in the centre of the Electrical Section, where visitors may obtain full and up-to-date information concerning electrical facilities available in any part of the kingdom.

*

An outdoor feature in the Quarry, Roads and Mining Section shows road-making in progress, and full size lengths of road and pavement in various materials, and several stages of completion, from foundation to final surfacing. In conjunction with this exhibit is an interesting collection of lamp-posts, intended, no doubt, to remind us of the monstrous effects that result from the application of ornament to cast iron.

*

Rubery Owen & Co. are showing steel storage equipment, adjustable shelving and storage bins for office and factory. The shelving is an interchangeable type ; backs, partitions and dividers can be added with ease. The standard finish is green stoved enamel.

*

Cellactite, the alternative to corrugated iron and asbestos cement for industrial roofing and side cover, is on view. It has a steel core completely enveloped in protective bitumen to which is applied, on each side, under high hydraulic pressure, an imperishable asbestos-asphalt felt.

*

Moler Products, Ltd., show two grades of insulating brick—one with a crushing strength of nearly 1,000 lb. per square in.—special aggregate for insulating concrete, and foundation material for furnaces, boilers, kilns, etc.

*

Sidney Flavel & Co. show the Flavel gas cooker, in new high grade finishes, the Leamington gas fires, the Patriot boiler and the Flavel portable gas heater.

*

The stand of I.C.I. (Metals), Ltd., who are the largest producers of non-ferrous metals in the United Kingdom, is designed by Mr. J. B. Surman, and the exhibits are arranged on the open principle, so that visitors have free access to them. In addition to strip and general metals, plates, rods, wire and tubes, the exhibit includes finished articles manufactured by customers of I.C.I. (Metals), Ltd., that indicate the uses to which various materials can be put.

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may, in the course of time, indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright Reserved.

Ceiling of a Laboratory

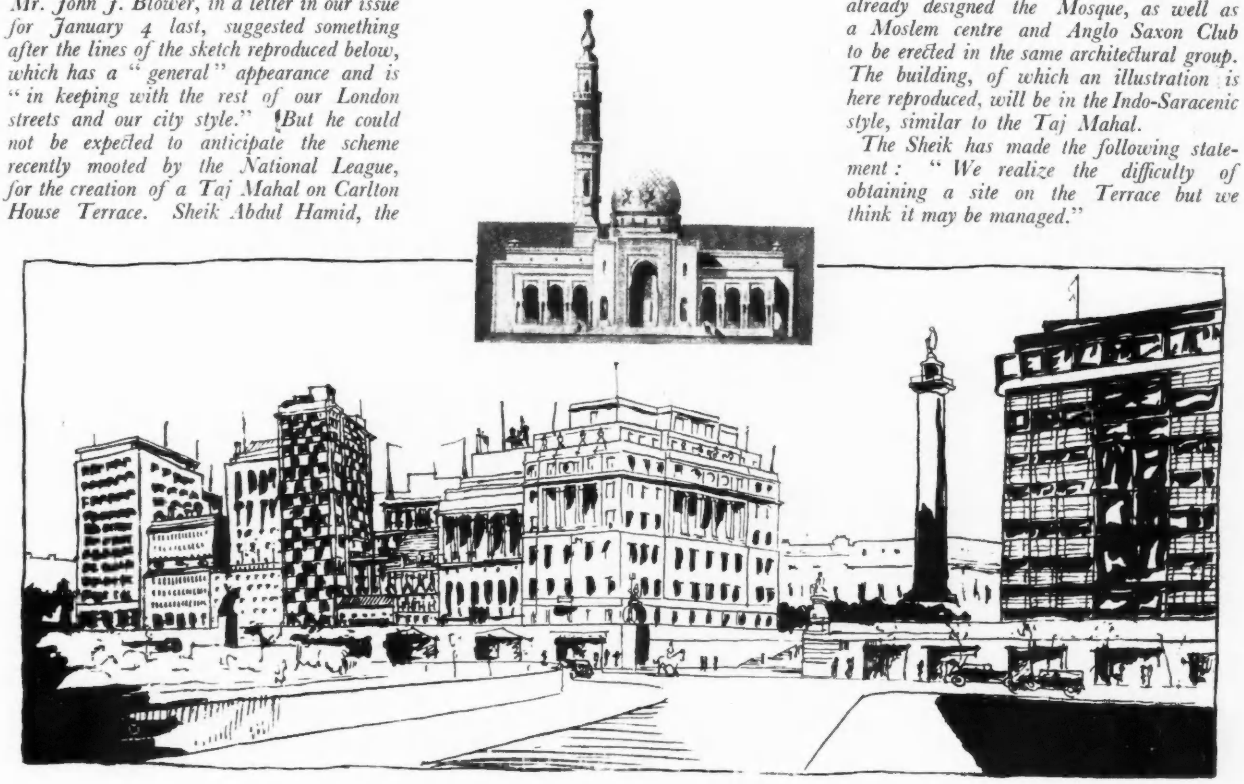
¶ *FOR the roof of a chemical laboratory an architect proposed to employ the usual type of concrete flat covered with asphalt, and he was concerned with possible methods of avoiding moisture condensation on the ceiling. He also wished to know what effect acid fumes would have on the lining materials, since the atmosphere of the laboratory in question would be more or less continually charged with fumes of this kind.*

At the outset it should be mentioned that there are so many factors involved in the phenomenon of condensation that it is hardly possible to make general recommendations which will eliminate troubles in any and every particular case. Briefly, it may be stated that air at any given temperature can retain a certain maximum quantity of moisture as vapour ; when the amount of water vapour in the air is approaching the maximum a small decrease in temperature induces the deposition of part of the moisture as liquid. In cases such as the present, the reduction of air temperature may be effected by heat loss at a cold surface, and it follows, therefore, that the rate of heat loss through the roof is a factor to be taken into account. Concrete roofs are sometimes deficient in thermal insulation, and the provision of additional

SOMETHING JOHN J. BLOWER FORGOT

A Taj Mahal for Carlton House Terrace! Mr. John J. Blower, in a letter in our issue for January 4 last, suggested something after the lines of the sketch reproduced below, which has a "general" appearance and is "in keeping with the rest of our London streets and our city style." But he could not be expected to anticipate the scheme recently mooted by the National League, for the creation of a Taj Mahal on Carlton House Terrace. Sheik Abdul Hamid, the only Indian member of the R.I.B.A., has already designed the Mosque, as well as a Moslem centre and Anglo Saxon Club to be erected in the same architectural group. The building, of which an illustration is here reproduced, will be in the Indo-Saracenic style, similar to the Taj Mahal.

The Sheik has made the following statement: "We realize the difficulty of obtaining a site on the Terrace but we think it may be managed."



insulation would assist in reducing condensation of moisture.

Another important factor, however, is the nature of the surface on which the condensed moisture is deposited. On a highly impervious material, such as high gloss paint, glazed tiles or metal, moisture may be deposited as droplets, which in time will coalesce and drip off, thus causing annoyance. On the other hand, a porous surface such as lime plaster may absorb the moisture for a time and the condensation will not be visible.

The amount of moisture present in the air is, of course, of considerable importance. If the air is constantly in a condition approaching saturation, it will be evident that quite a small temperature fall will lead to condensation. As the concentration of acid fumes in laboratories is usually accompanied by considerable quantities of moisture vapour, the conditions in this instance may be very severe.

High concentration of acid fumes may be expected to have an injurious effect on many building materials, such as plasters, mortars and concretes. Ceramic materials in general would be unaffected. If the tendency for condensed moisture to drip is not objectionable, a glass lining material such as had been proposed for the walls might also be found suitable for the ceiling.

Wood, of course, is in many ways an ideal material; it is little affected by acid fumes, affords high thermal insulation and, in addition, provides a surface which is rapidly warmed, so that condensation of moisture would rarely occur.

Collapse of Plaster Ceiling

¶ *COLLAPSE of part of a plaster ceiling was reported. In submitting a sample of the plaster for examination the contractors stated that the specification for the work called for proportions of one part lime to three parts sand, with the usual proportion of hair added. Plaster ceilings of a similar mix in other parts of the building were suspected to be weak.*

A superficial examination of a sample of the failed plaster indicated that the plaster was apparently three-coat work in lime and sand. It was somewhat harder and rather less friable than such failed plaster is often found to be, with no signs, in the small fragment available, of defective workmanship. The sand in the undercoats was a fine white silica sand, not of the best possible grading for undercoats on lathing, but of a type commonly used successfully; it contained a fair proportion of fine light-coloured silt. The hair was, as is usually observed in modern work, small in quantity, but was well distributed. The lime was well carbonated, and there were no signs of unsoundness. The undercoats consisted of a straight lime-sand mix with a typical greystone or semi-hydraulic lime, low in sulphates, and ungauged. The setting coat was, as is usual, gauged to a moderate extent with a calcium sulphate plaster (presumably of the ordinary "gauging plaster" type), but consisted essentially of lime with a little fine white sand.

It should be pointed out that, as a result of the examination of numerous plaster failures of a similar type, and of recent investigations on the subject, the Building Research Station is led to the conclusion that there is difficulty in the use of a straight lime plaster for lathwork on ceilings. Indeed, under modern conditions, of haste in building, with plaster coats following closely one upon the other, with one trade following another rapidly, with the possibility of greater structural vibration, with accelerated drying conditions and with the difficulty (bearing in mind the number and varied types of limes now available) of developing in the craftsman a craft skill applicable to the various types of lime, the Station is in fact inclined to the opinion that success with a straight lime-sand plaster over lathwork is often merely fortuitous.

It should be made quite clear that the specification employed in the present case did, up till recently, and still does to a great extent, represent normal practice; it will, indeed, be found as a recommended specification in many textbooks. In criticizing it, therefore, the Station is doing so merely in the light of recent scientific investigation, and although every attempt is being made to get the findings of the Station applied in practice, it is not to be expected that a break in long-established traditional practice can be anything but gradual.

The present recommendation of the Building Research Station in relation to lime plaster undercoats on lathwork is

that they should be gauged with Portland cement, or, preferably, a slow-setting calcium sulphate plaster. With either of these additions the key and key necks would early acquire a definite strength and not merely a hardening and feeble increase in strength due to accidental carbonation, as would be the case with straight lime plaster. In this connection it should be mentioned that, even if the lime was hydraulic, the operation of running it to a putty, as is customary for plastering purposes, would "kill" its strength-acquiring properties as a hydraulic lime. Gauging with calcium sulphate plaster instead of Portland cement probably has the advantage of lessening the shrinkage of the plaster mix and, therefore, the tendency of the key necks to shear. With regard to hair, there is no doubt that the quantities now specified serve merely to facilitate application, whereas there is evidence that very much greater quantities were used in earlier years with probably appreciable reinforcing effects when uniformly distributed. It is quite feasible to introduce as much as 1 lb. per 2 cubic feet of plaster, but any increase over this amount would no doubt necessitate a plastering technique which would be strange to the modern plasterer. As an alternative to ceiling lathwork it is, of course, becoming quite common practice to fix plaster (calcium sulphate) boards to the joists and to cover these with one or two skim coats of plaster.

To summarize, the situation in the present case is, in the opinion of the Station, as follows :—

1 : The plaster examined appears to be as good as could be expected even if carefully made to the specification and carefully applied.

2 : The specification, although typical of what has been and still is considered normal practice, is not considered, in the light of recent investigation, to provide a satisfactory undercoat for lathwork on ceilings, taking the drastic changes in building procedure into account.

3 : Since conditions may be the same throughout the house, it is suggested that at various points an examination of the keys be made from the top side in order to ascertain whether they are friable or loose : if they are, then the ceiling below should be replaced either by gauged plaster or by plaster-boards and skim coats.

4 : It has been suggested that a certain amount of the plaster may have been frozen and knocked up again before application. With a putty lime this would not be objectionable. On the other hand, if frost reached the wet plaster *in situ* it would have caused fairly complete disruption, and it cannot be said that this has occurred.

Plaster on Rubber Insulation

¶ *A SURVEYOR proposed to run electric wiring cables of a quality known as "Tough Rubber" over the surface of walls which would eventually be covered with a proprietary calcium sulphate plaster, and he asked whether such plaster would have a deleterious effect on the cables. He added that instances are known of the deterioration of the lead sheathing of lead-covered cables where they have come into contact with this particular plaster.*

The most important causes of deterioration of rubber, under normal conditions, are oxidizing agents and ultra-violet radiation. Since the plaster would to a great extent prevent both light and air from reaching the rubber, it may be concluded that rubber, which would show satisfactory durability when exposed to air, would age equally well, or even better, when protected by plaster, except in cases where the plaster is wet or seriously damp.

If the wiring is carried out in accordance with the regulations of the Institution of Electrical Engineers, the only type of rubber-covered cable which may be installed in plaster is "cable insulated with tough rubber compound to British Standard Specification No. 37."

The corrosion of lead cable coverings in plaster is not an unusual phenomenon, and is dealt with in Building Research Bulletin No. 6 (H.M. Stationery Office, price 4d. net). In contact with lime the lead may corrode, and although the trouble is usually confined to dense cement mortars and concretes where the lime liberated on the setting is protected from access of air and so remains uncarbonated, yet there is no reason to suppose that the same type of corrosion should not occur with this particular type of calcium sulphate plaster which contains lime. This, however, would be an entirely different kind of deterioration from that which rubber is likely to undergo.

The Adelphi

It must be with deep regret, says a writer in the current issue of *The News-Letter*, that innumerable lovers of London and its past will learn that a Bill is shortly going to be introduced into Parliament to authorize the destruction of the Adelphi. With a grim sweep of the destroyer's hand all the beauty and romance and associations of one of the most interesting remains of eighteenth-century London are to be wiped out. Can nothing be done to save it?

It is pointed out that not only is the Adelphi interesting for its architectural merits, but it is full of literary and artistic memories.

At No. 8 Doctor Thomas Monro trained Turner and Girtin and Varley and De Wint, and here long after Thomas Hardy, as a young man, studied architecture. Crabbe and Gibbon and Isaac d'Israeli stayed in the Adelphi Hotel, formerly known as Osborne's. Rowlandson died at No. 1, James Street. Hood lived at No. 2 Robert Street. Dickens used to play among the arches as a boy. Barrie, too, lived in the Adelphi. These are but a few of numerous memories clinging to the spot.

The Transport Bill

The London Passenger Transport Bill has been read a third time in the House of Commons and will now go before the House of Lords. Briefly, this Bill, which has been before Parliament since March, 1931, proposes to co-ordinate all the traffic facilities of London—tubes, buses and tramways—by placing them under the control of a new London Passenger Transport Board.

This Board is to consist of a chairman and six other members to be appointed by a body known as "the Appointing Trustees," consisting of the following persons :—The chairman of the L.C.C.; a representative of the London and Home Counties Traffic Advisory Committee ; the chairman of the Committee of London Clearing Bankers ; the President of the Law Society ; and the President of the Institute of Chartered Accountants in England and Wales. The chairman and other members of the Board must have had "wide experience and have shown capacity in transport, industrial, commercial or financial matters." Their duty will be "to secure the provision of an adequate and properly co-ordinated system of passenger transport for the London Passenger Transport area."

Rhythmic Ornament

On Friday next, February 24, at 9 p.m., Mrs. Ettie Hornibrook, Fellow of the Empire Society, will deliver a lecture at her home, 14, Hinde Street, Manchester Square, W., on the New Zealand Maori rafter patterns compared with other forms of ornament. The lecture will be followed by an exhibition, which will be open on Saturday, February 25, from 10 a.m. to 10 p.m.

Deputation to Minister of Health

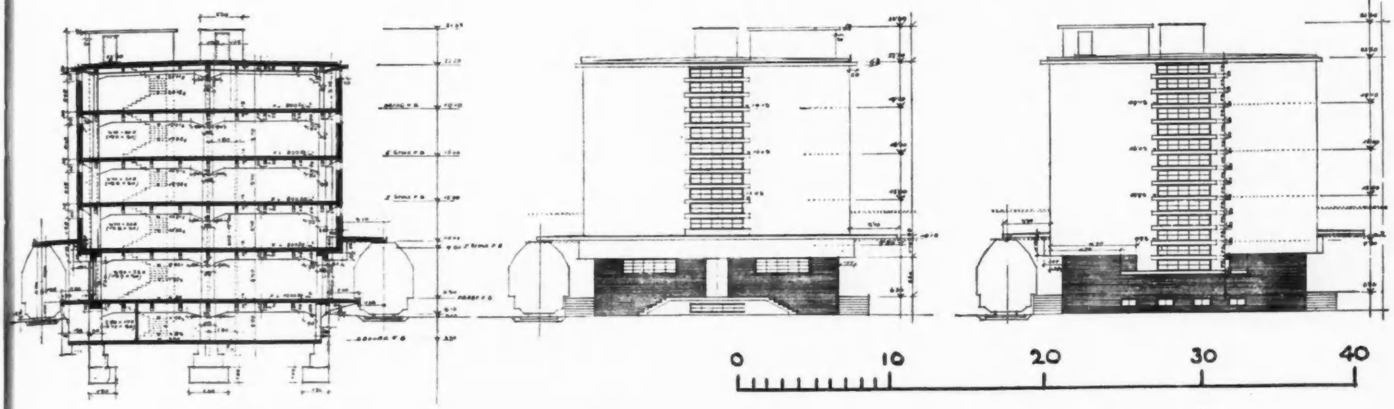
The Minister of Health received a deputation last week from the General Council of the Trades Union Congress on the subject of housing and rents.

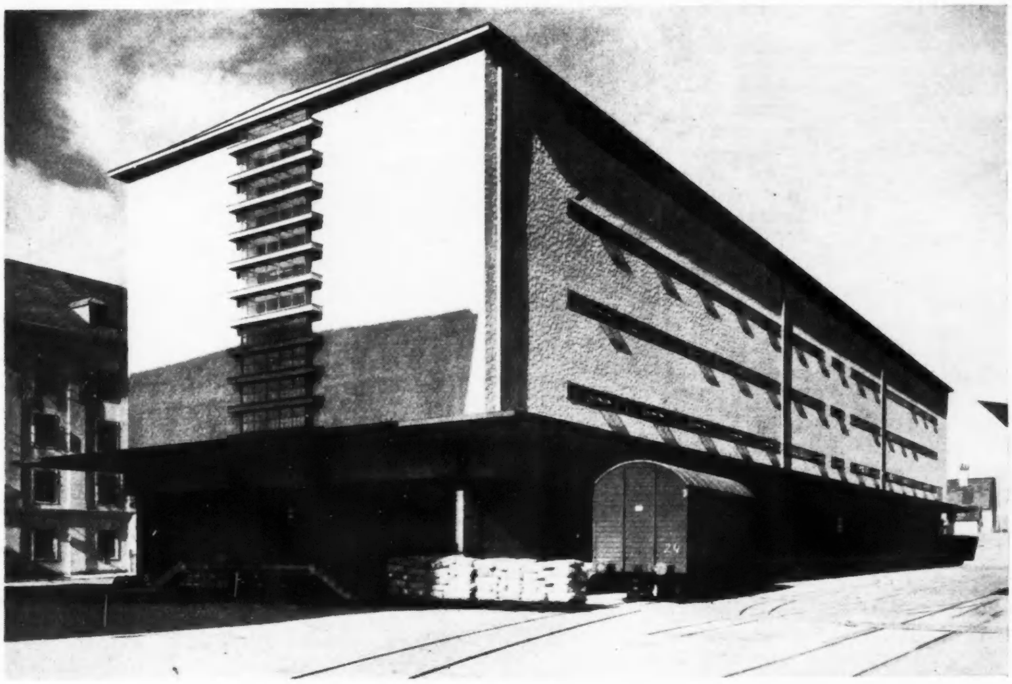
The deputation was introduced by Mr. A. G. Walkden. The other speakers were Mr. Hicks, M.P., and Mr. Wolstencroft.

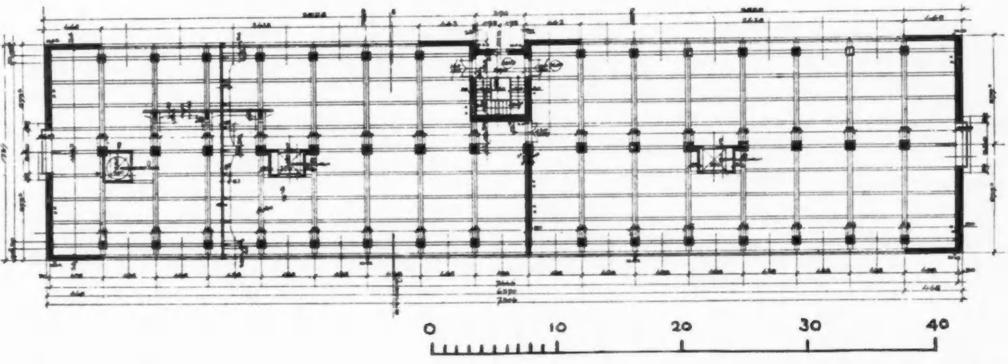
The deputation attended to discuss a resolution passed by the General Council in September last and raised a number of questions with regard to the Housing Bill and the Government's housing policy for the future, emphasising particularly that, in their view, the essential need of ensuring an adequate supply of small houses for letting to the lower paid wage earners required the continuance and extension of the building activities of local authorities.

The Minister of Health, in reply, said that he keenly welcomed the opportunity of discussing these matters with representatives of the Trades Union Congress. After replying to the detailed points raised by the deputation, he said that he felt there was much common ground between them, and he fully agreed that the essential housing need of the present time was two-fold : the provision of small houses to let at rents within the means of the poorer paid members of the working classes, and an energetic programme of slum clearance. He differed from them only in the methods which were considered most effective to meet this need, and he was confident that the Government's policy was calculated to achieve both of these objects most efficiently and rapidly.

CIGARETTE FACTORY AT LINZ, AUSTRIA



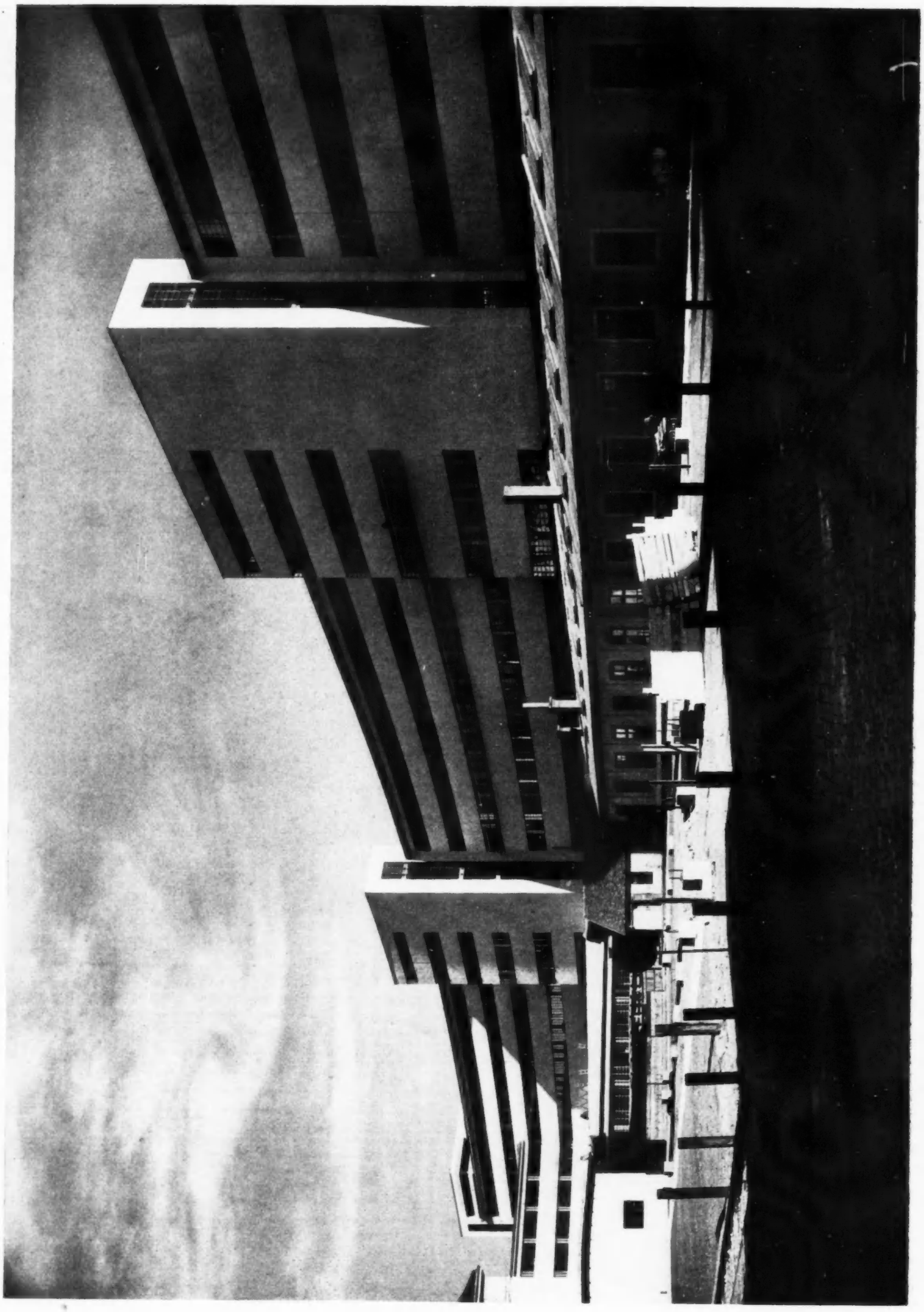




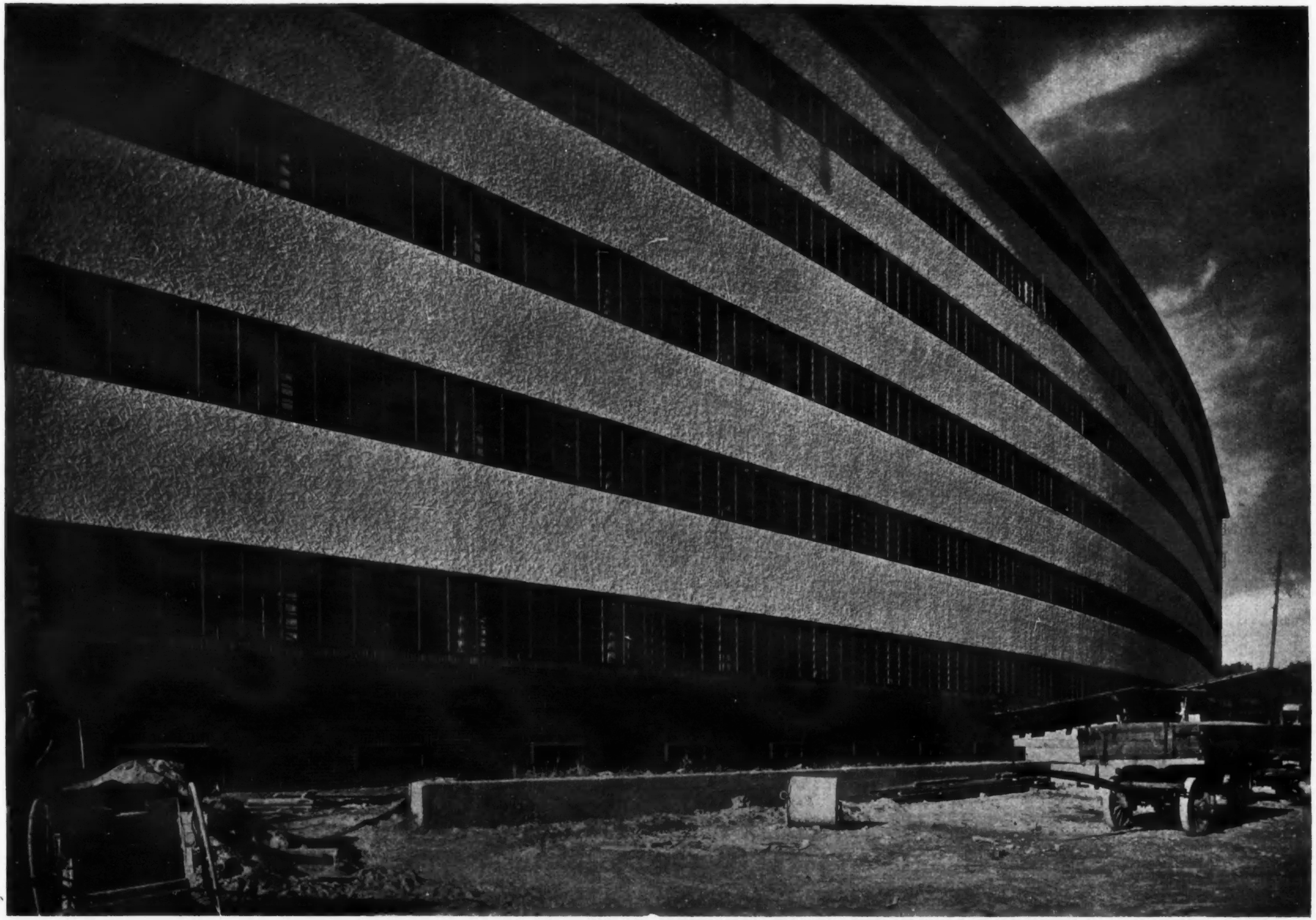
The main building of this very expensive factory, at Linz, on the River Danube, operated under the auspices of the Austrian State Regie, is illustrated, photographically, on the two following pages, and, with plans and description, in a supplement with this issue. The view and drawings on this page are of the leaf warehouse, which has a low-pitched roof and stands apart, with a rail dock on either side of it.

DESIGNED
BY
PETER BEHRENS
AND
ALEXANDER POPP

This is a simple but elegantly-proportioned rectangular building, surrounded by a thin concrete canopy at loading-gauge level. The interior is lit by four rows of nearly continuous horizontal glazed slits on the longer sides, and by wide vertical windows, barred with overlapping concrete transoms, on the shorter. The exterior is finished in white *Kratzputz* stucco with a base skirting of red brick.



CIGARETTE FACTORY, LINZ, AUSTRIA: BY PETER BEHRENS AND ALEXANDER POPP



The views on these pages show the two sides of the building, which takes a bowstring sweep: in the upper, the large hall projecting at right angles to the inner curve is seen on the left; in the lower, it is clear that only the centre section is bowed—the far end is straight, and so is its fellow.

IN PARLIAMENT

BY OUR SPECIAL REPRESENTATIVE

State-assisted Houses

Sir Francis Freemantle asked the Minister of Health if he would state the number of houses completed under the several Acts, or otherwise, during the last quarter of 1932, and the corresponding figures for 1931.

Sir Hilton Young said that the number of State-assisted houses completed in England and Wales during the last quarter of 1932 was 13,282. Returns as to the number erected without State assistance were made to him half-yearly only, in respect of the six months ending March 31 and September 30 respectively. The number so erected during the six months ended September 30 last was 63,146. The figures for the corresponding periods in 1931 were 18,185 and 61,163 respectively.

The Government and Economy

Captain Beaumont inquired why, in view of the Government's declared policy of economy in national and local expenditure, the Minister had recently sanctioned new expenditure on building by local authorities to the extent of £4,000,000 : what circumstances had occurred to warrant this change, and what proportion of the new expenditure would fall on the Exchequer.

Sir Hilton Young said he was not aware how the figure of four million was made up and was accordingly unable to answer the third part of the question. The policy of the Government in this matter continued to be regulated by the circular of September, 1931.

Housing Progress

Mr. Hicks asked for information as to houses completed or under construction by local authorities in England and Wales without State assistance and for letting to members of the working class at cheap rents.

Sir Hilton Young said he was only able to state that during the twelve months ended September 30 last approximately 2,000 houses were completed by local authorities in England and Wales without State assistance.

Captain Erskine-Bolst asked the average estimated construction price of working-class dwellings which had been commenced by local authorities since the announcement that the subsidy would be no longer forthcoming.

Mr. Shakespeare, who replied, said he regretted that information in the form desired was not available, but the average building cost of State-assisted non-parlour houses included in contracts let and in direct labour schemes commenced by local authorities in England and Wales during the month of December last was £296. The corresponding cost for January was not yet available.

Captain Erskine-Bolst asked the Minister if he could state the number of houses which had been put in hand since he announced the cessation of subsidies, and how this figure compared with the total of such houses put in hand in the corresponding period of 1931–32.

Mr. Shakespeare said he regretted that figures in the form desired were not available, but the number of State-assisted houses included in contracts let and in direct-labour schemes commenced by local authorities in England and Wales during the month of December, 1932, the last month for which such figures are at present available, was 4,576. The corresponding figure for the month of December, 1931, was 4,223. The Minister had no information as to the number of houses put in hand for erection without State assistance.

Reconstruction of Premises

Replying to several questions, Sir Hilton Young said that he had asked the Central Valuation Committee to look into the matter of assessments for the reconditioning and improvement of premises, with a view to addressing a communication to local authorities.

Waterloo Bridges

Mr. McEntee asked the Minister of Transport if he would state what was the cost of the temporary Waterloo Bridge and of its maintenance since erection, and the cost of preserving the old bridge since its collapse.

Mr. Pybus said he was informed that the cost of erecting the temporary bridge was £174,647, and that the cost of maintenance since its erection and of preserving the old bridge since its collapse had been £85,000.

The Humber Bridge Bill

The Humber Bridge Bill, which was carried over from the last Parliament, has been withdrawn. The Deputy-Speaker ruled that the fact that the Government had refused to implement its undertaking to contribute 75 per cent. of the cost had so altered conditions that he could not allow the third reading to be proceeded with. The whole financial basis of the Bill had been altered.

LAW REPORT

DAMAGES CLAIMED FOR OVERFLOWING GUTTER

Bishop v. Consolidated London Properties Ltd.—King's Bench Division. Before Mr. Justice du Parcq.

THIS was an action by Mrs. J. R. Bishop, of Hyde Park Mansions, claiming damages from the defendants, the Consolidated London Properties, Ltd., for alleged breach of a covenant in her lease and in the alternative for damages for negligence.

Mr. R. J. Sutcliffe, for the plaintiff, said his case was that under the lease of the flat the defendants agreed to keep the exterior of the premises and all parts of the building in good repair. There was also a clause for quiet enjoyment of her flat. When his client arrived home one evening in September last she received a complaint that water was coming from her flat into the flat below. There had been a heavy fall of rain, and it appeared that an open gutter in the box room, not part of the flat, near the roof had overflowed into his client's flat and then into the flat below. Plaintiff's case was that the defendants did not keep the pipe clear, but allowed it to become choked, with the result that the rain came into her flat and damaged her furniture, and deprived her of the use of her flat for a short period.

Mr. Cope Morgan, for defendants, said his clients denied any breach of covenant, and pleaded that they had taken all care to keep the gutters clean and the pipes in repair. The cause of all the trouble was that a pigeon got into the box room and died there, thus blocking the gutter. Counsel argued that if the cause was as suggested the defendants could not reasonably have contemplated it and were not liable.

His lordship said the facts of the case were that the rain water passed along open gutters under the roof of the box room into lead troughs and then down a pipe. In the ordinary way, the gutters being cleaned twice a year, there would have been no serious obstruction, but in some way a dead pigeon and its nest got into the pipe and caused the trouble. He had had evidence that the gutters were of peculiar construction and that the defendants had failed to put wire netting over the troughs. He came to the conclusion that there had been a breach of covenant by the defendants to keep the exterior of the premises in good repair, there being a lack of care on their part in not taking greater precautions than they did to prevent foreign bodies getting into the water courses. The defendants were alive to the danger, as they had just put up some wire netting, which however proved inadequate. He found the plaintiff was entitled to damages and he awarded her £115 with costs.

Stay of execution, pending an appeal, was granted.

SOCIETIES AND INSTITUTIONS

LIGHTING OF COMMERCIAL BUILDINGS

The second of the series of conferences for architects on electric lighting was held at the Lighting Service Bureau, 2, Savoy Place, W.C., on Wednesday last. Mr. H. C. Wheat, in the course of a paper on "The Lighting of Commercial Buildings," said :

There are five systems or classes of lighting available for interiors, namely :—1 : Direct ; 2 : Semi-direct ; 3 : General ; 4 : Semi-indirect ; and 5 : Indirect.

Of the foregoing, class 3 (General) would usually be the type employed for lighting of general offices, as representing the best compromise as regards cost of installation, operation and maintenance, compared to lighting results secured. It covers most of the so-called enclosing units in which the light source is entirely surrounded by diffusing glassware, so that while the greater portion of the light is still directed below the unit a considerable amount goes upward and sideways. The physical efficiency is not essentially different from Class 2, but the general effect is "softer" and the shadows are even less defined. The psychological effect is improved as the whole apartment is illuminated.

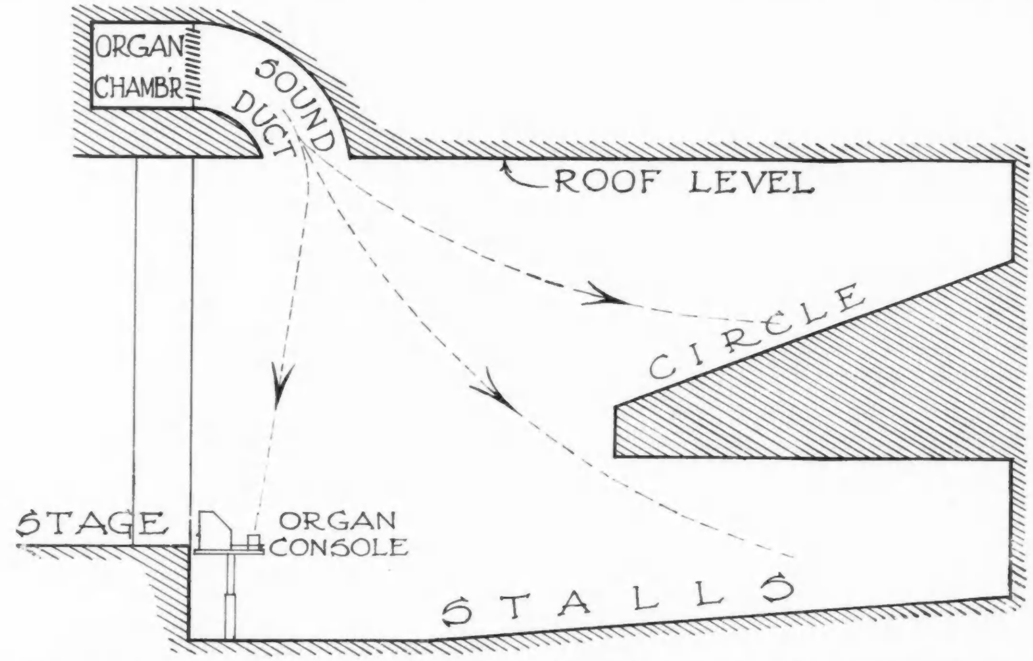
As general illumination should be employed in any circumstances, either alone or to augment local lighting, it may be well to consider the proper spacing of the lighting units. In order to cover an area, either floor or ceiling, fairly uniformly, it should be divided into a number of imaginary squares or rectangles, and a unit placed at the centre of each. Where more than one unit is required in a single rectangular room one should be placed at a quarter of the diagonal from each corner.

BIRMINGHAM ARCHITECTS' EXHIBITION

A photographic exhibition of work of the members of the Birmingham Architectural Association was held last week at the Royal Society of Artists.

The exhibition, which was opened by Sir Charles Grant Robertson, illustrated the development of architecture in Birmingham and the surrounding districts since the war. It was divided into nine groups—domestic, licensed houses, cinemas, public buildings, ecclesiastic, banks, schools and colleges, industrial buildings and hospitals.

THE PLACING OF A CINEMA ORGAN CHAMBER



Diagrammatic section through a cinema, showing an organ chamber placed in such a position that the sound reaches the circle, stalls and organist simultaneously and in equal volume. [*From* SPECIFICATION, 1933.

There were also exhibited measured drawings of buildings erected in Birmingham between 1790 and 1840 which had been carried out by unemployed architectural assistants.

MAIDSTONE ARTS AND CRAFTS SOCIETY

At a meeting of the above Society, held at Maidstone on Wednesday, February 1, lectures were given by members on the following subjects: "The Making of Hand-made Drawing Papers," by Mr. J. Green; "Gesso," by Mr. J. Hale, F.I.B.D.; "Fakes in Furniture," by Mr. F. Bevis.

A short discussion followed each talk. The speakers were thanked by Mr. S. H. Loweth, F.R.I.B.A., a past Chairman of the Society.

LITERATURE

Specification, 1933. Edited by Frederick Chatterton, F.R.I.B.A. London: The Architectural Press. Price 10s. 6d. net.

THE publication of the 1933 edition of *Specification* marks the second year since it appeared in a cloth binding, and the comfort of handling the volume is now so greatly increased that one wonders why we had to wait so long for the new cover.

The standard of impressiveness is well maintained in the current issue and the book still holds its own as the most complete reference work in a single volume which is available "for architects, surveyors, civil engineers, and for all interested in building."

An innovation of a most welcome character is the Gill Sans type designed by Eric Gill, which has been adopted for the section headings, sub-titles and cross-headings throughout the volume.

In the course of revision, several excellent articles and three new specifications have been incorporated in the trade sections forming the main portion of the book, but it is the group of five illustrated special articles occupying the first fifty or sixty pages to which particular attention is drawn.

In the first of these, "Factory Design and Lay-out" by Mr. C. W. Glover—the principle of planning the building in accordance with the sequence of manufacturing processes to be carried out within it—is clearly enunciated and copiously illustrated. Cost factors per square foot of floor area for different types of construction of varying spans are given in tabular form, together with much other valuable information.

Mr. A. Ewart Aston writes at length on "Wallboards and Their Uses," and makes a timely and well-deserved plea for the employment of wallboards for work of a more lasting character than was formerly the case. Instancing improved methods of manufacture, better technique in application, and the production of surface finishes which lend themselves to artistic treatment, he expresses the view that wallboards would appear to have now "a place of permanent value in the Art and Craft of Building."

Mr. F. R. S. Yorke's article on "The Equipment of the Modern Cinema" contains the following facts bearing upon the necessity for cinema ventilation:

> A system of ventilation is demanded by the regulations of local authorities, and the reason for this becomes obvious when we realize that a seated and inactive person gives off, in one hour, 400 B.Th.U.'s and 2 ozs. of water vapour. In a cinema with a seating capacity of 2,000, the effect on the internal atmosphere can be readily imagined.

Describing a typical underground bakehouse, of which large numbers are still to be found in English towns, Mr. S. W. Ackroyd, in his article on "Modern Bakeries," writes:

> In this cellar would be housed the ovens, stoked by coal or coke, the dust from which would settle over the tables and other fittings, to be picked up by the next lump of dough placed thereon. There is little wonder that the premises where the nation's "staff of life" is produced have at last had the attention of the

health authorities, and that modern hygienic bakeries are now taking the place of those "cellar-bakehouses."

"Inside and Outside Blinds," by Mr. Edwin Gunn, is illustrated by the author's own sketches of six standard types of outside blinds.

OBITUARY

We regret to record the death of Mr. Edward Penfold, F.R.I.B.A., A.M.T.P.I., of Reigate, after a very brief illness.

He was born in Reigate in 1866, and was educated at the Reigate Grammar School. He was articled to Mr. T. R. Hooper, A.R.I.B.A., of Redhill, and later was for a considerable time with the firm of Messrs. Ford and Hesketh in London. In 1893 he acquired an interest in the century-old business of Mr. Edward Larmer.

St. Lawrence's Church, Feltham

Following are the names of the general contractors, specialists, and some of the sub-contractors for the Church of St. Lawrence, Feltham (pages 270-271). General contractors: Wm. Downs, Ltd. Craftsmen—Sculptor: P. Lindsey Clark, A.R.B.S. Baptistry windows: John Trinick. Sub-contractors: Anderson, Angell & Co., Ltd., electric heating and lighting; Silexine Decorators, Ltd., internal plastering; Damar Bros., stone masons; Bennett's "Tungit" Wood Block Flooring Co., Tungit flooring; H. C. Parker & Co., external facing; Nicholls and Clarke, Ltd., windows and glazing; Blunt and Wray, Ltd., Baptistry rails and gates; Holley and Pike, seating and furniture; Val de Travers Asphalte Paving Co., Ltd., asphalt; British Reinforced Concrete Eng. Co., reinforcement; Siegwart Fireproof Floor Co., concrete roof flats.

*

We much regret that, in publishing, in our issue of January 18 last, illustrations of the King's Fund Miniature Hospital, we omitted mention of the names of the contractors and sub-contractors for this unique building enterprise. The names being somewhat difficult to trace, Mr. H. Saxe-Wyndham, who was chairman of the Model Committee, has come to our assistance with the following verses celebrating their achievement :—

A DREAM DREAMT LONG AGO
or
The Building of the
King's Fund Miniature Hospital
1929–1932.

How it was thought of: How it took shape—upon paper: How many willing hands lent help: How it grew and prospered: and How the Epilogue fulfilled the Dream.

Wyndham had a brain wave, underneath his hat;
Pearson fetched his drawing-board, nice and smooth and flat.
Bring, said he, my T-square, compasses and ruler:
Never were my mind and will or my intention cooler.
Then he drew his pretty plans, sections, elevations.
Now, he said, we'll show what we can do to other nations.
Entrance hall and board room, offices and wards,
Bathrooms bright and good enough to suit the House of Lords.
Kitchenettes and kitchen, lift and corridors,
Terrazzo stone and korkoid covering the floors.
Then he drew a Babies' Ward and pictures to amuse 'em—
Jack and Jill and Whittington; nothing to confuse 'em.
Last of all he added such a beautiful Solarium
Where they lie as naked as the fish in an aquarium.
Take it all, he said, to Humphreys Limited, Contractors:
All the world's a (building) stage and they're illustrious actors.
Down we went to Knightsbridge, saw Director Freeman,
Found him keen and generous—bluff as any seaman.
Send for Taigel, then, he said, I choose him from them all.
We'll do the best we can to build the King's Fund Hospital.
Taigel quickly set to work, with heart and hand and will.
Director Freeman's generous intention to fulfil.
Nor must Thomson be forgot (No common Thompson he)
For he quickly steered us back to shore when we were all at sea.
A Conference he summoned with the sub-sub-contractors willing,
All professed their readiness to take the King's (Fund) shilling.
Doultons for the baths, etcet, Crittall's window frames;
Waygood-Otis for the lift: all well-renowned names.
The General Electric (Chairman Sir Hugo Hirst)
For wonder-working violet rays among the very first:
Electric light and heating they gaily undertook
But the Gas Light, Coke and Company, appliances that cook.
And Troughton Young are Limited but not in elevation
For they co-operated in electric installation.
The panelling and furniture from Bedford made by White
Are Lilliputian marvels that enthral the wondering sight.
And then within the Children's Ward see Simpson's tiny tiles.
With nursery rhymes in pictures to tempt the kiddies' smiles.
The door handles so weeny they're almost lost to sight
Were made in London City by a firm called Messrs. Knight.
And all the fire appliances you see now put together
By the National Fire Protection and by Messrs. Merryweather.
Among the wondrous marvels that you won't see every day
Are Schall & Sons' equipment for producing the X-Ray.
James Slater is of London and a well-known Engineer
Who sent sterilizing cupboards and the kitchen fittings here.
Some surgeons' gear and ward lockers were made by Messrs. Down—
A firm as every doctor knows of credit and renown.
The cabinets, the instruments, the trollies made by Rose
A firm of ditto ditto dit oh! every doctor knows.
The clothing of the patients kept in lockers made of steel
Which are made by Estler Brothers—how I wish their name were Beal.
My rhymes are getting worse and worse: just try refrigerators
Which absolutely will not rhyme with anything but taters.
The Hotlock firm I rather like, and their electric trolley,
An easy word, a breezy word, a word that's really jolly.
There's Maple now, whose Mister Wray
Took endless pains and trouble
To keep his firm's great fame and faith,
Their reputation double.

From Birmingham in Warwickshire
Came all the beds and cots
By Hoskins Sewell Limited, for adults and for tots.
The tiny tubes that form them, Britannia's famous make
The British castors under them tho' small will never break.
The Midland Springs on bed and cot add to the patients' ease
And so of course do bedclothes and Eastman's mattressees.
Great Kodak made a dark-room, 'tis only 8 inch wide,
I know it isn't large enough—I tried to get inside.
The piano is by Chappell, it really is, by Jove.
And if you want a better firm its far afield you'll rove.
And then the Austin ambulance with bodywork by Strachan—
A better baby combination never has been born.
Sangorski too and Sutcliffe, who supplied a Minute Book
It's so minute that minutes turn to seconds as you look.
To print our books and photographs we had to ask a Riddell,
George Newnes and *Country Life* combined, and which was premier fiddle?
The portraits in the board room are by Praga, R.B.A.
Whom Savages and civilised regard as first to-day.
The carpets and the tiny rugs were labour gained for love
From one whom need and charity have never failed to move.
The bed linen and blankets, the coverlets as well,
Were gifts from gentle ladies whose names I shall not tell.

EPILOGUE

And so it came to pass that, our labours
being ended, we sought to crown them in a
glorious manner. And being emboldened to
believe our efforts and trials would be graciously
approved by the Highest in the land, it was
said by one of us: let us even ask two Royal
Ladies for a very small gift; and it was done.
And so we were further encouraged by our success
and we took the greater step. We besought the
like favour from the Greatest Lady in the Land;
and that too was done. And thus it is that in our
little yet great Hospital, which the Eldest Son of the
Greatest Lady opened for us upon the Sixth
January in the year of Grace 1933, we are enabled to place
upon each of the six little but greatly honoured beds
a delicate, fragile but beautiful lace kerchief,
the gifts of these Royal Ladies aforesaid:—
H.R.H. The Princess Royal
H.R.H. The Duchess of York
and
HER MAJESTY THE QUEEN

Announcement

Mr. Waldo Maitland, A.R.I.B.A., architectural adviser to the E.L.M.A. Lighting Service Bureau, has set up practice under the style of Waldo Maitland and Partners, at 32, Bloomsbury Street, W.C.1 (Telephone: Museum 0355). He is undertaking consulting and other work in connection with modern electric lighting schemes for private and public buildings of all types. Mr. Maitland will continue to advise the Lighting Service Bureau on all architectural matters.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The BARKING Corporation is to negotiate with the L.C.C. for the acquisition of 40 acres in the Becontree area for a housing scheme.

The BARKING Education Committee is to erect the proposed Biffrons school, at an estimated cost of £37,000.

Plans passed by the CATERHAM U.D.C.: Two houses, Milner Road, for Messrs. O'Sullivan (Kenley), Ltd.; two houses, Court Bushes Road, for Messrs. Gladden and Bridle; ten houses, Coulsdon Road, for Mr. C. Cooper; eight houses, Whyteleafe Hill, for Mr. R. J. Clarke; three houses, Whyteleafe Road, for Mr. J. W. Looby; two houses, Eldon Road, for Messrs. E. and A. L. Gatwood; nine houses, and four flats, Eldon Road, for Mr. T. W. Stutchberry; alterations, 4-6 Croydon Road, for Messrs. Freeman, Hardy and Willis, Ltd.

The L.C.C. has prepared a scheme for the clearance of the Bronze Street area, DEPTFORD, the cost being estimated at £125,000.

Plans passed at EAST HAM: 25 houses, Lawrence Avenue, for Mr. W. E. Edwards; four houses, Stokes Road, for Mr. R. J. Slater; 11 houses, Market Street, for Eastern Developments, Ltd.; two houses, Roman Road, for Mr. R. J. Slater.

The EAST HAM Corporation General Purposes Committee is to consider plans for the erection of office accommodation and school clinics on the site of the employment exchange buildings in High Street.

Plans passed at ILFORD: Four houses, Edwina Gardens, for Mr. R. Shipperd; alterations, 778 Green Lane, for Messrs. Boots, Ltd.; 14 houses, South Park Road, for Messrs. E. Glenny and Son; addition, 19 Mayesford Road, for Mr. P. G. Ashton; 48 houses, Brian Road, for Mr. G. J. Cullimore; plant shed at factory, Grove Road, for Ship Carbon Co., Ltd.; 12 houses, Edwina Gardens, for Mr. T. Anders; 39 houses, Emmott Avenue, for Mr. C. Fryatt; alterations, 172 Cranbrook Road, for Messrs. Clemens Bros.; 23 houses, Highwood Gardens, for Mr. A. Smith; 18 houses, Woodville Gardens, for Mr. P. E. Brand; 19 shops, Seven Ways Parade, Woodford Avenue, for Mr. J. Aldridge; alterations, 189 High Road, for Mr. J. W. Lohden; packing room, Britannia Works, Roden Street, for Mr. W. J. Lewis; addition to factory, Grove Road, for Mr. J. T. Perrin; 13 houses, Hamilton Avenue, for Mr. R. Martin; offices and store, Ilford Wharf, Roden Street, for Mr. E. Meredith; methodist church and schools, Oaks Lane, for Mr. P. R. Fincher; seven houses, Hobart Road, for Mr. G. F. Siegerts; 15 houses, Eastern Avenue, for Padnall Estates, Ltd.; three shops, Green Lane, for Mr. A. Moore; 16 houses, Queenborough Gardens, for Mr. G. White; 26 houses, Holland Park Avenue, for Messrs. Bolland Bros.

The Padnall Estates, Ltd., are to erect about 1,000 houses on the Padnall estate at ILFORD.

Plans passed by the LEWISHAM B.C.: Eight houses, St. Mildreds Road, for Messrs. H. F. Thoburn, Ltd.; eight houses, Brockley Grove, for Mr. H. Macintosh; eight houses, Daneby Road, for Mr. G. T. Harman; rebuilding 183-5 Rushey Green, for Mr. G. T. Harman; two houses, Le May Avenue, for Mr. S. E. Wootton; buildings, site of 227-9 High Street, and Morley Road, for Messrs. Dowton & Co.

The WIMBLEDON Public Utility Society is to erect 16 flats in Effra Road, Wimbledon.

SOUTHERN COUNTIES

Plans passed by the EASTBOURNE Corporation: Houses, Victoria Drive, six houses, Hunloke Avenue, two shops, 45 Seaside Road, two houses, Dillingough Road, alterations, Fishermen's Institute, Royal Parade East, for Mr. A. Ford; alterations, Bowling Rink, Colonnade Road, motor coach station for Southdown Motor Services, Ltd., in Cavendish Place, alterations, Willington Hotel, Willington Gardens, alterations The Drive Hotel, Victoria Drive, for Messrs. P. D. Stonham and Son; alterations, Albemarle Hotel, Marine Parade, for Hotel Co.; four houses, Harding Avenue, for Mr. F. C. Benz; alterations, 8-9 Grand Parade, for Mr. O. H. H. Nuttal.

Plans passed at HASTINGS: Four houses, Barley Lane, for Messrs. Jeffery and Bowcock; additions, 37 Clinton Crescent, for Messrs. Oxley and Burleigh; ten houses, Sedlescombe Road, for Mr. H. Slade; alterations and additions to laundry, Convent of Our Lady, Filsham Road, for Mr. J. S. D. Hicks; alterations, Menzi Hall, All Saints Street, for Messrs. Jeffery and Bowcock; alterations, 8 and 11 Pelham Place, for Messrs. Callow and Callow; alterations to shop, 26 and 28 London Road, for Messrs. Oxley and Burleigh; two houses, Woodbroom Road, for Mr. A. Radcliffe; additions, Warrior Gate Hotel, London Road, for Mr. E. G. Wildin; alterations, 31 White Rock, for Mr. J. Hunt.

SOUTH-WESTERN COUNTIES

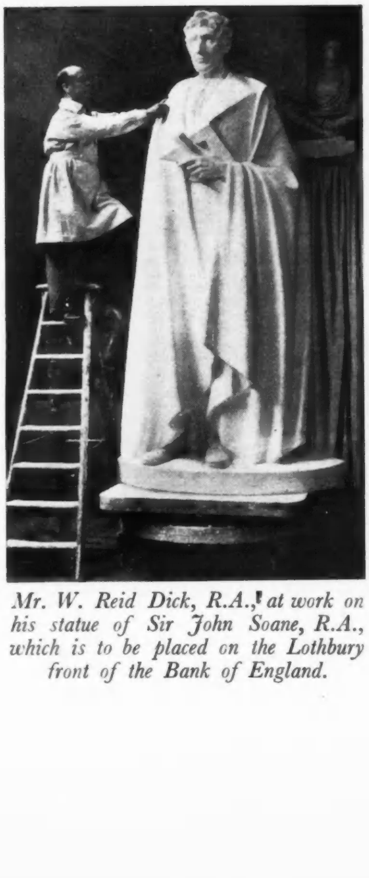
The PLYMOUTH Corporation is to make a grant to the Plymouth Housing Society, Ltd., for the erection of 21 flats in Valleytort Place, and eight in Buckwell Street.

The PLYMOUTH Corporation Land Committee is assisting the Tamar Valley Canning Co., Ltd., to obtain a suitable site for the erection of a canning factory.

EASTERN COUNTIES.

Plans passed by the COLCHESTER Corporation: Two houses, Mile End Road, for Mr. G. M. Farrow; two houses, Mile End Road, for Mr. A. J. Diss; alterations, Culver Street, for Messrs. W. A. Hills and Sons; two houses, Mersea Road, for Mr. F. Taylor; two houses, Old Heath Road, for Messrs. H. G. Pryke and Son; five houses, London Road, Lexden, for Mr. F. Humm.

The Tamworth Construction Co., Ltd., is to develop the Whitehall Estate, COLCHESTER.



Mr. W. Reid Dick, R.A., at work on his statue of Sir John Soane, R.A., which is to be placed on the Lothbury front of the Bank of England.

MIDLAND COUNTIES

The BIRMINGHAM Corporation has sold land at the civic centre on the Kingstanding estate to the authorities of the Roman Catholic Church for the erection of a church and school.

The BIRMINGHAM Corporation has leased sites on various housing estates to Mr. Douglas James for the erection of 114 houses; and to Mr. S. H. Marsh, for the erection of six houses, 12 shops, and 12 houses and shops.

Plans passed at CHELTENHAM: Four houses, Exmouth Street, for Mr. C. H. Reason; new vestry, St. Paul's Church, for the Church Council; additions and alterations, Y.M.C.A. Promenade, for the Y.M.C.A.; conversion of house into two houses, Lagarie, Eldorado Road, for Messrs. L. W. Barnard and Partners; two houses, Knapp Road, for Mr. F. Willett; six houses, Evesham Road, for Messrs. A. C. Billings and Sons; extension to school buildings, St. Mark's School, Alstone Lane, for the school managers; extension to Christchurch School, Malvern Road, for Christchurch School managers; 16 houses, Bouncer's Lane, Prestbury, for Mr. W. H. Bowd; 12 houses, Bouncer's Lane, Prestbury, for Mr. A. E. Hunt.

Plans passed at DUDLEY: Two houses, Forest Road, for Mr. T. D. Edwards; two houses, Nith Place, Priory Estate, for the Dudley Co-operative Society, Ltd.; alterations and additions, Wolverhampton Road, for Lloyds Bank, Ltd.; two houses, Priory Estate, for Mr. F. A L. Butler; two houses, Yew Tree Hills, Netherton, for Mr. A. L. Hingley; two houses, Chestnut Avenue, for Mr. W. H. A. Smith; two houses, Stourbridge Road, Harts Hill, for Messrs. Lloyd Bros.

NORTHERN COUNTIES

Plans passed at BARROW-IN-FURNESS: Alterations, 159, Dalton Road, for Messrs. Lipton, Ltd.; four houses, Oxford Street, for Mr. L. Robinson; two houses, Thorncliffe Road, for Messrs. Rainey Bros., Ltd.; alterations and additions, 244 Dalton Road, for Messrs. W. T. Story, Ltd.; two houses, West Avenue, for Messrs. R. T. Dockeray & Co., Ltd.; alterations and additions, 99 Duke Street, for the Britannia Insurance Co., Ltd.; alterations and additions, 14, Cavendish Street, for Messrs. McDowell.

Plans passed by the BLACKPOOL Corporation: Six houses, Devonshire Road, for Messrs. Sherratt and Smith, Ltd.; 16 houses, Walpole Avenue, and house and shop, Squires Gate Lane, for Lancashire Construction Co.; factory extensions, Devonshire Road, for Bee Bee Biscuit Co.; station and booking office for miniature railway, Pleasure Beach, for Pleasure Beach Co.; six houses, Thirsk Grove, for Mr. W. Hornby; four houses, Ansdell Road, for Mr. A. Nuttall; two houses, Delphene Avenue, for Mr. W. Spencer; six houses, Marton Drive, for Messrs. J. Gregson and Son; 12 houses, Collins Avenue, for Mr. Ernest Riley; seven houses, Brook Street, for Messrs. Hogarth and Pollard; 10 houses, Stoke Avenue, for Mr. James Witt; 10 houses, Westcliffe Drive, for Mr. E. Armitage; eight houses, Stamford Street, for Mr. W. H. Whiteley; four houses, Wetherby Avenue, for Mr. W. B. Snape; two houses, Peddars Lane, for Mr. Thos. Hill; alterations and additions, 499, Promenade, for Mr. R. Tomlinson; two workshops, Selbourne Road, for Messrs. J. and R. Fenton, Ltd.; six houses, St. Luke's Road, for Mr. H. D. Whiteside; cinema and café, Red Bank Road, for Mr. C. Dunn; two houses, Manchester Road, for Mrs. H. Cardwell; two houses, Manchester Road, for Mr. John Cardwell; 44 houses, Beaufort Avenue, for Messrs. R. Fielding and Son; junior school, Russell Avenue, for Education Committee.

The BLACKPOOL Corporation is to obtain a site on the Pembroke estate for a swimming-bath, and has authorised the preparation of plans for the buildings.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A_1	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	„		1	7
Joiner	„		1	7
Machinist	„		1	8
Mason (Banker)	„		1	7
„ (Fixer)	„		1	8
Plumber	„		1	7
Painter	„		1	6
Paperhanger	„		1	6
Glazier	„		1	7
Slater	„		1	7
Scaffolder	„		1	3
Timberman	„		1	3
Navvy	„		1	2¼
General Labourer	„		1	2¼
Lorryman	„		1	5
Crane Driver	„		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2" Broken Brick	„		9	6
¾" „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, Add	„	2	0	0
„ Other Colours	„	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" „ „ „	„		1	11
3" „ „ „	„		2	2
4" „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ Sawn templates	„	7	6
„ Paving, 2"	F.S.	1	8
„ „ 3"	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	„	26	0	0
20" × 10" Countesses	„	19	5	0
18" × 10" Viscountesses	„	15	17	6
18" × 9" Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
„ green „	„	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾"	Sq.		19	0
„ ⅞"	„	1	1	6
„ 1"	„	1	3	6
„ 1¼"	„	1	7	6
„ 1½"	„	1	12	0
Deal matchings, ½"	„		14	0
„ ¾"	„		15	6
„ 1"	„	1	4	0
Rough boarding ¾"	„		16	0
„ 1"	„		18	0
„ 1¼"	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3"–11½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	„	8	6
„ „ ½"	„	8	3
„ „ ⅝"	„	8	0
„ „ ¾"	„	7	6
„ „ ⅞"	„	7	6
„ „ 1"	„	7	6
„ „ 1¼"	„	7	6
„ „ 1½"	„	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9" offsets	„	4	0	6	3
Plinth bends, 4½" to 6"	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
„ „ 26 oz. „ „ „	„					3¾
Arctic glass, white	„					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„					6½
¼" Hartley's rough rolled	„					7
¼" „ wired cast	„					10
¼" Georgian wired cast	„					11
¼" Polished plate, n/e 1 ft.	„		†7½	to	‡1	0
„ „ 2	„		†10	„	‡1	3½
„ „ 3	„	†1	4½	„	‡1	10
„ „ 4	„	†1	11	„	‡2	4
„ „ 6	„	†2	3	„	‡2	7½
„ „ 8	„	†2	5	„	‡3	0½
„ „ 12	„	†2	10	„	‡3	3½
„ „ 20	„	†3	3½	„	†3	9
„ „ 45	„	†3	6½	„	‡4	0½
„ „ 65	„	†3	11½	„	‡4	4
„ „ 90	„	†4	4	„	‡4	9
„ „ 100	„	†4	6	„	‡4	11
Vita glass, sheet, n/e 1 ft.	„				1	0
„ „ „ 2	„				1	3
„ „ „ over 2	„				1	9
„ „ plate, n/e 1 ft.	„				1	6
„ „ „ 2	„				3	0
„ „ „ 5	„				4	0
„ „ „ 7	„				5	0
„ „ „ 15	„				6	0
„ „ „ over 15	„				7	6
Putty, linseed oil	lb.					3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12″ deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5′ 0″ deep and cart away	Y.C.		9	0
„ to form basement n/e 5′ 0″ deep and cart away	„		9	6
„ „ 10′ 0″ deep and cart away	„		10	0
„ „ 15′ 0″ deep and cart away	„		10	6
If in stiff clay . . . add	„		3	0
If in underpinning . . . „	„		5	0
Digging, return, fill and ram . . . „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4″		6″	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
¾″ Horizontal dampcourse	Y.S.	4	6
¾″ Vertical dampcourse	„	6	9
¾″ paving or flat	„	4	0
1″ paving or flat	„	5	6
1″ × 6″ skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3″ lap, and fixing with compo nails, 20″ × 10″	Sqr.	3	10	0
Do., 18″ × 9″	„	3	7	0
Do., 24″ × 12″	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4″ gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾″ deal sawn boarding and fixing to joists	Sqr.	1	15	6
1″ „ „ „ „	„	1	19	6
1¼″ „ „ „ „	„	2	5	0
¾″ × 2″ fir battening for Countess slating	„		10	6
Do. for 4″ gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9″ joists	F.R.		1	0
1″ deal gutter boards and bearers	F.S.		1	4
1¼″ „ „ „ „ „	„		1	8
2″ deal wrought rounded roll	F.R.			9
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼″ do.	„	3	2	0
1½″ do.	„	3	11	0
1″ deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼″ do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½″ deal moulded sashes of average size	F.S.	2	3
2″ „ „	„	2	6
1½″ deal-cased frames, double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1½″ heads, 1″ inside and outside linings, ⅜″ parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2″ „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½″ deal four-panel square, both sides, door	F.S.	2	6
2″ „ „ „	„	3	0
1½″ „ but moulded both sides	„	3	0
2″ „ „	„	3	6
4″ × 3″ deal, rebated and moulded frames	F.R.	1	6
4½″ × 3½″ „ „	„	2	0
1½″ deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½″ deal moulded wall strings	„	2	6
1½″ „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3″ × 2″ deal moulded handrail	F.R.	1	6
1″ × 1″ deal balusters and housing each end	Each	2	6
1½″ × 1½″ „ „	„	3	3
3″ × 3″ deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½″		¾″		1″		1¼″		2″		4″	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4″ cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
¾″ screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1″ girth	„			2
1″ granolithic pavings	Y.S.		4	6
1½″ „	„		6	0
6″ × 6″ white glazed wall tiling and fixing on prepared screed	„		18	0
9″ × 3″ „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

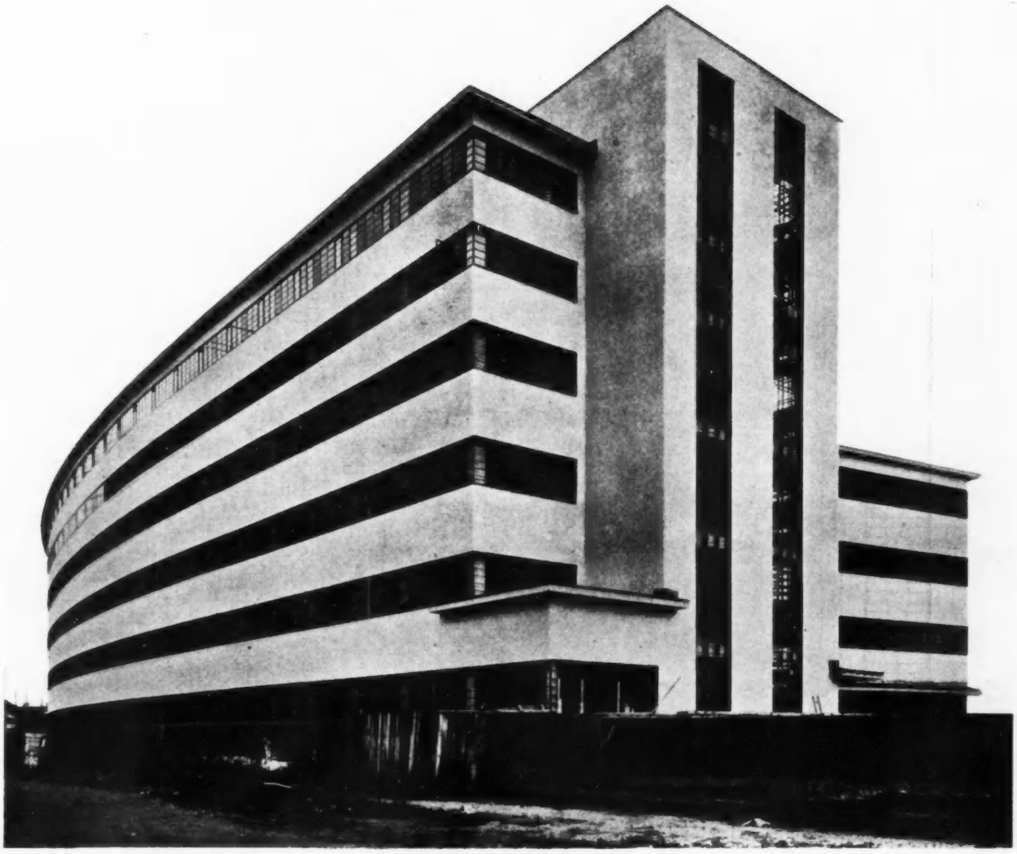
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	„	2	9

Supplement to THE ARCHITECTS' JOURNAL for February 22, 1933

CIGARETTE FACTORY, LINZ, AUSTRIA

BY DR. PETER BEHRENS AND ALEXANDER POPP: PLAN AND SECTIONS



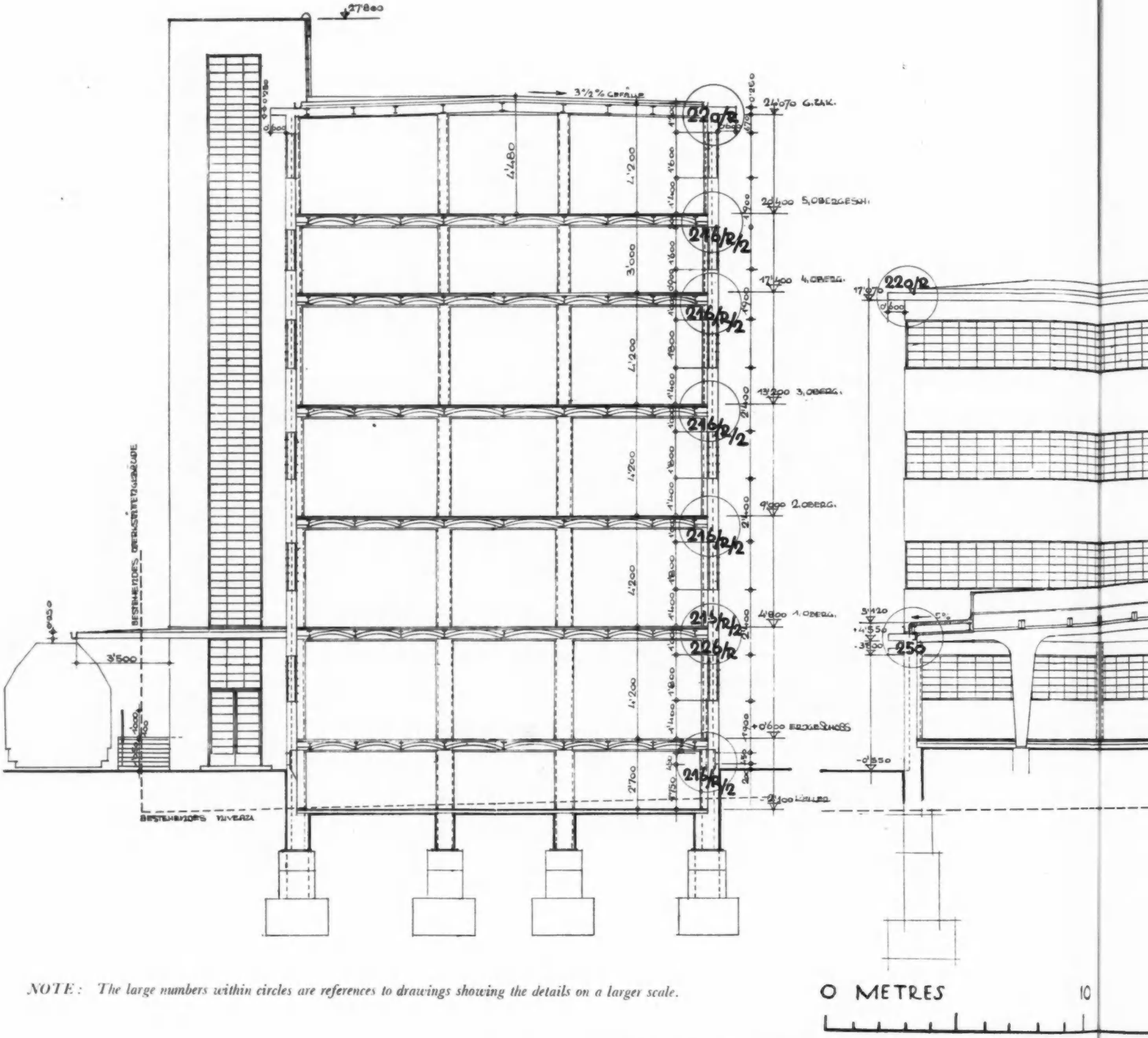
THE CURVING SWEEP OF THE 730-FOOT FRONT TO THE LUDLGASSE

THIS factory, of which plans and two cross-sections appear overleaf and other illustrations elsewhere in this issue, will eventually be the largest of its kind in the world. It is a long, six-storied, steel-framed structure, designed on the standard-unit principle, with very slender supporting points spaced as nearly as possible 4 metres apart.

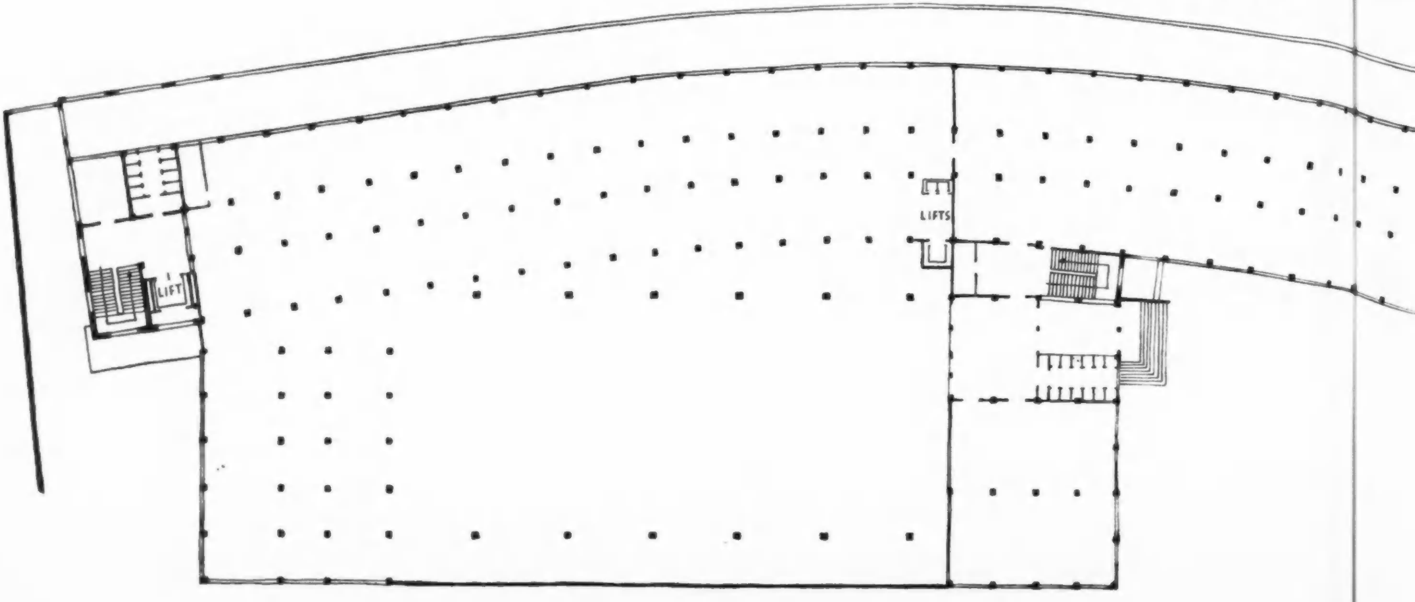
The main façade, which follows the convex curve of the Ludlgasse, is patterned in continuous ribbons of fenestration, with six-panes-deep metal-framed casements, alternated by broad bands of plain, white roughcast rendered directly on to the deep edges of the heavy concrete floors. In the rear the building faces a large yard with a corresponding concave elevation, the line of which is interrupted by twin staircase towers with long perpendicular windows that emphasize their re-entrant angles. Two rather larger staircase-towers, dissimilar in design, flank each end. One, which contains the administrative offices, is joined to a group of older buildings by a flying bridge. The other, which screens the structural link between the factory proper and a four-storied annexe that houses the atmospheric conditioning rooms and despatch department, forms a square apse dominating the landscape with its parallel vertical windows. These four great staircase-towers, in which the lifts and lavatories are placed, overtop the flat roof, punctuating it like hugh squat chimneys.

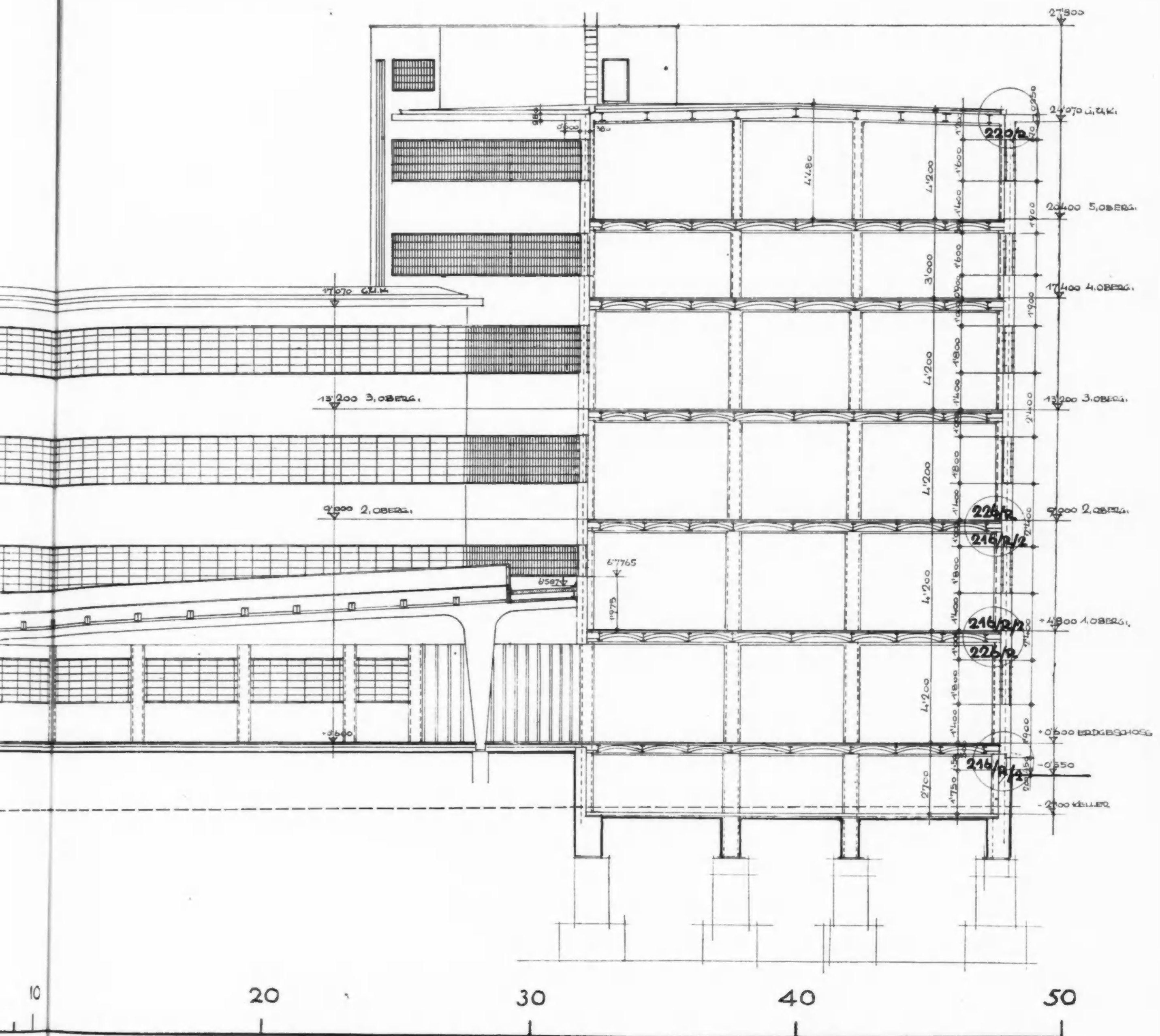
The Austrian State Régie believes in the business value of design. In spite (or perhaps because) of this it is, oddly enough, about the only really successful commercial undertaking in present-day Austria. Instead of engaging a structural engineer to design its vast new factory, which is one of the most rationally- and economically-constructed yet built, the Régie deliberately chose the most distinguished living German architect, Peter Behrens—whose Turbine-Erecting-Shop in Berlin for the A.E.G. (1909) was the first truly "modern" industrial building. The result is seen in such entirely unacademic details as the way in which the main front repeats the bold sweep of the road instead of tamely squaring it off.

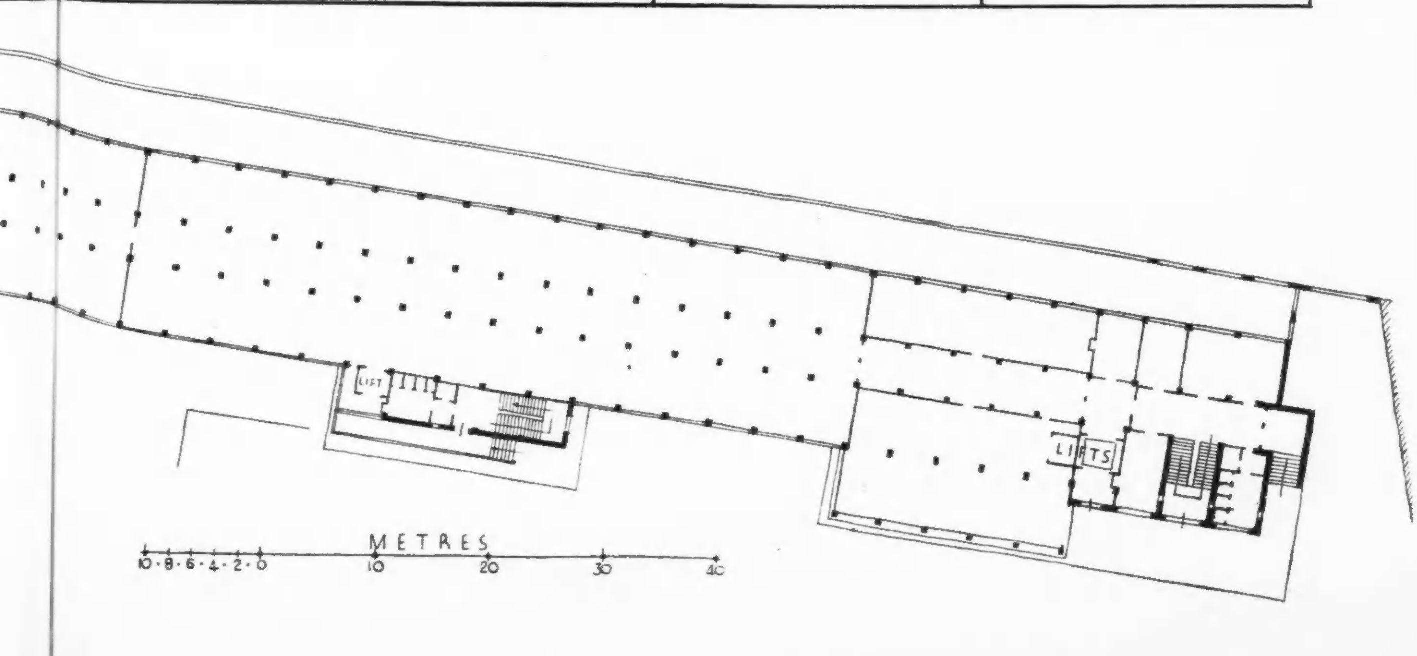
For all its severe and disciplined plainness there is no suggestion here of that grim, prison-like monotony which makes so many "up-to-date" tobacco factories "industrial-looking" in the bad old Victorian sense of the word. This is a fine and seemly building, owing nothing to conventional added graces.


27'800
3½% GEFÄLLE
24'070 G.DAK.
20'400 5,OBERGESH.
17'400 4,OBERG.
13'200 3,OBERG.
9'000 2.OBERG.
4'800 1.OBERG.
+0'600 ERDGESCHOSS
-2'100 KELLER
22a/2
216/2/2
213/2/2
226/2
250
4'480
4'200
3'000
2'700
3'500
BESTEHENDES NIVEAU
0 METRES 10

NOTE: The large numbers within circles are references to drawings showing the details on a larger scale.




27'900
24'070 U.K.K.
220/2
20'400 5.OBERG.
17'400 4.OBERG.
17'070 O.K.K.
13'200 3.OBERG.
9'000 2.OBERG.
224/2
216/2/2
+4'800 1.OBERG.
216/2/2
226/2
6'7765
+0'600 ERDGESCHOSS
216/2/2
-0'350
-2'700 KELLER
4'480
4'200
3'000
4'200
4'200
4'200
4'200
2'700
10
20
30
40
50


LIFT
LIFTS
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10·8·6·4·2·0
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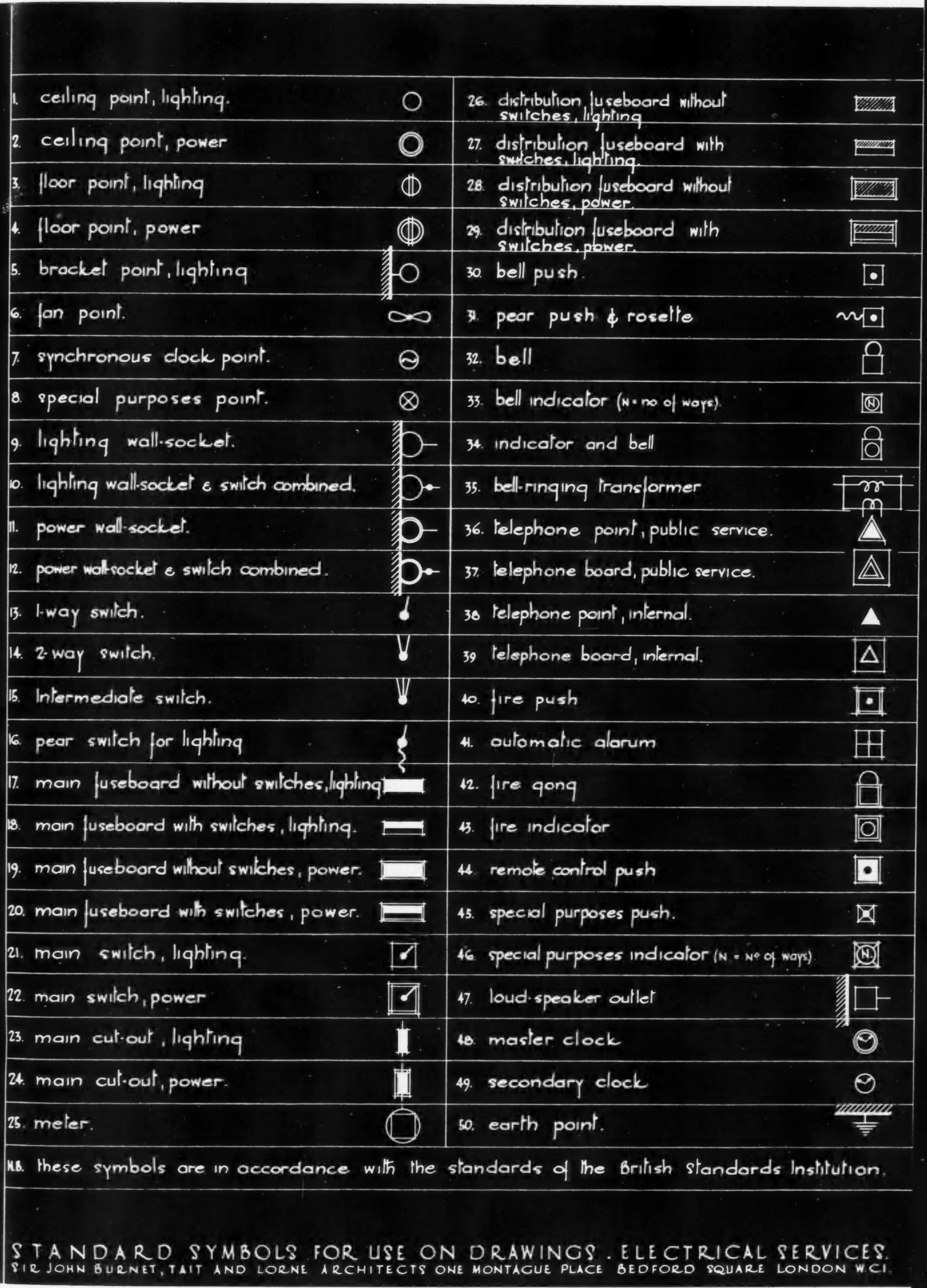
40



1.	ceiling point, lighting.	26.	distribution fuseboard without switches, lighting
2.	ceiling point, power	27.	distribution fuseboard with switches, lighting.
3.	floor point, lighting	28.	distribution fuseboard without switches, power.
4.	floor point, power	29.	distribution fuseboard with switches, power.
5.	bracket point, lighting	30.	bell push.
6.	fan point.	31.	pear push & rosette
7.	synchronous clock point.	32.	bell
8.	special purposes point.	33.	bell indicator (N = no of ways).
9.	lighting wall-socket.	34.	indicator and bell
10.	lighting wall-socket & switch combined.	35.	bell-ringing transformer
11.	power wall-socket.	36.	telephone point, public service.
12.	power wall-socket & switch combined.	37.	telephone board, public service.
13.	1-way switch.	38.	telephone point, internal.
14.	2-way switch.	39.	telephone board, internal.
15.	Intermediate switch.	40.	fire push
16.	pear switch for lighting	41.	automatic alarum
17.	main fuseboard without switches, lighting	42.	fire gong
18.	main fuseboard with switches, lighting.	43.	fire indicator
19.	main fuseboard without switches, power.	44.	remote control push
20.	main fuseboard with switches, power.	45.	special purposes push.
21.	main switch, lighting.	46.	special purposes indicator (N = Nº of ways).
22.	main switch, power	47.	loud-speaker outlet
23.	main cut-out, lighting	48.	master clock
24.	main cut-out, power.	49.	secondary clock
25.	meter.	50.	earth point.

N.B. these symbols are in accordance with the standards of the British Standards Institution.

STANDARD SYMBOLS FOR USE ON DRAWINGS. ELECTRICAL SERVICES.
SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS • 6 • ELECTRICAL SYMBOLS

INFORMATION SHEETS

• 6 •

SYMBOLS FOR ELECTRICAL SERVICES

•

THIS week's Information Sheet is again chosen with a view to giving readers a foretaste of the varied scope of the subjects to be dealt with in the course of the present series. It grows out of the movement in favour of the adoption of a standard code of simple symbols whereby the numerous electrical appliances in current use may be readily and briefly indicated. It is, therefore, in contrast to the group of data about another essential service—plumbing—to which its immediate predecessors were devoted; this will be resumed later.

The drawings from which all these Information Sheets are reproduced originated in the office of Sir John Burnet, Tait and Lorne. Far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, thus placing the whole profession in their debt, and incidentally furnishing the student of fine draughtsmanship with specimens for emulation.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

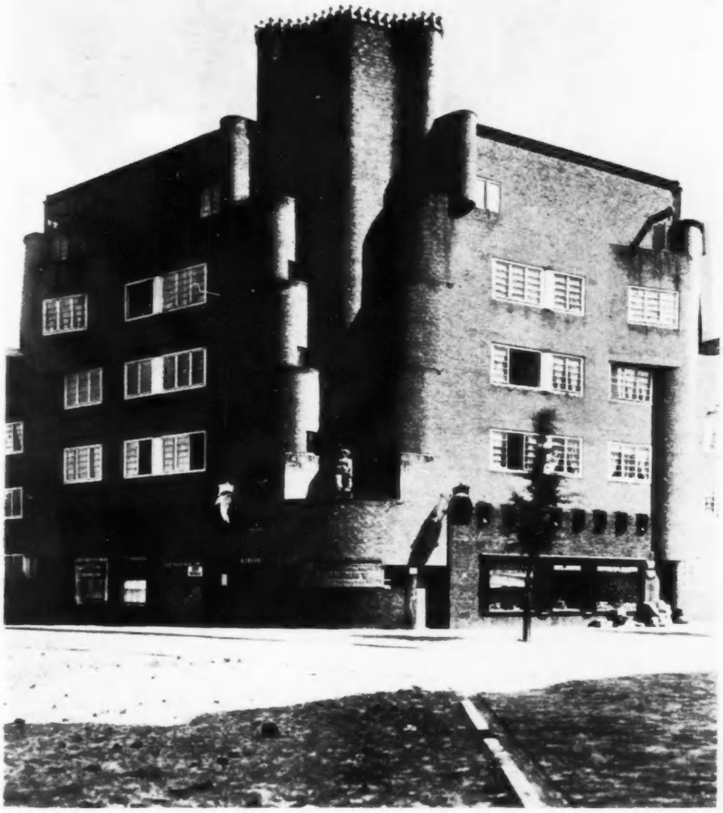
Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

The following is a list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.

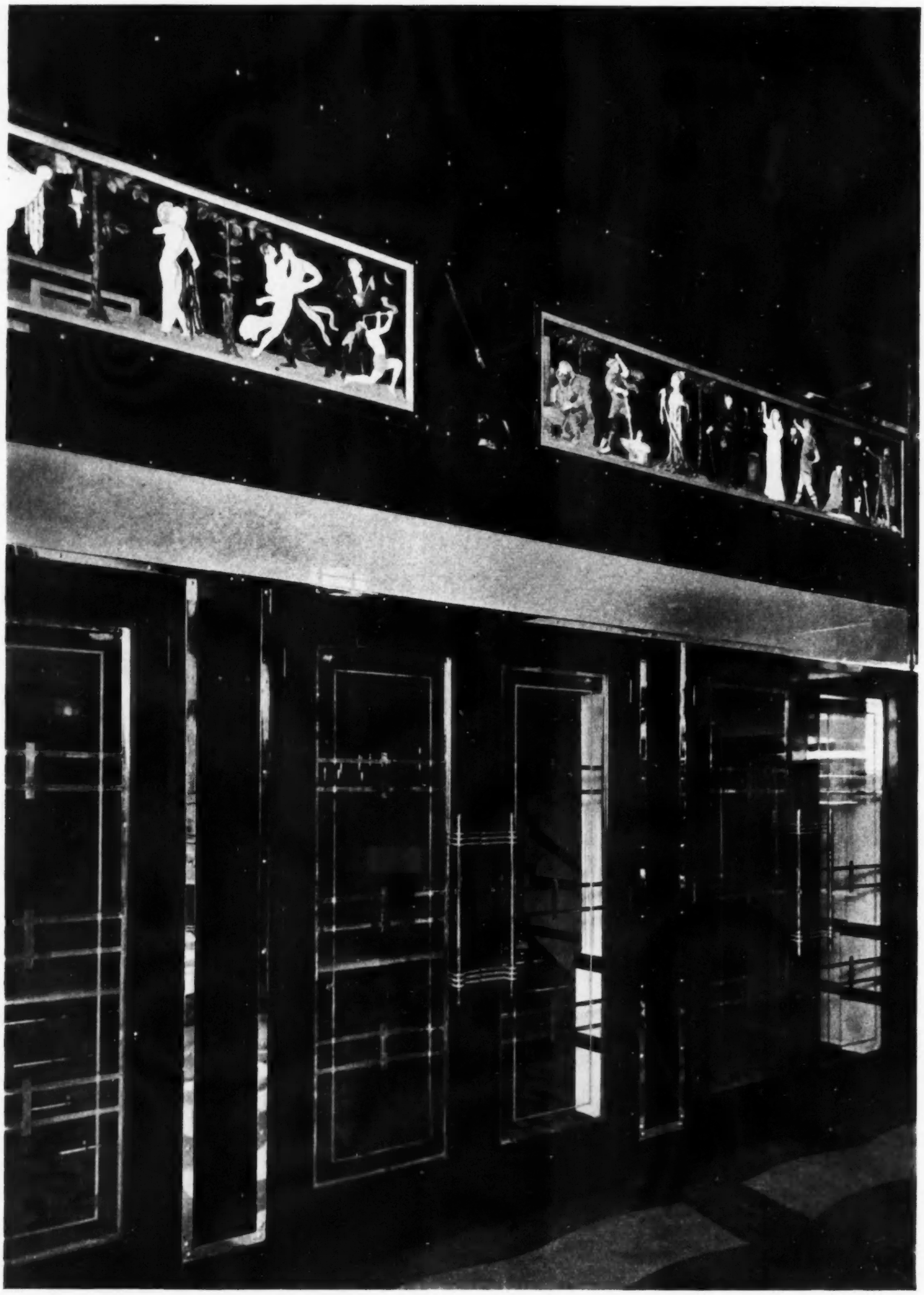
TENEMENT HOUSES IN AMSTERDAM

FOR A PUBLIC UTILITY SOCIETY : BY PIET KRAMER



A CONFERENCE took place last Friday at the R.I.B.A. of representatives of Public Utility Societies. There have been about 250 voluntary housing societies formed since the war, and the purpose of the conference was for the societies to consider what evidence they would present to the Departmental Committee now being set up to consider methods of dealing with slums. A photograph of flats built by a Public Utility Society at Amsterdam is reproduced on this page. These are from designs by Piet Kramer.

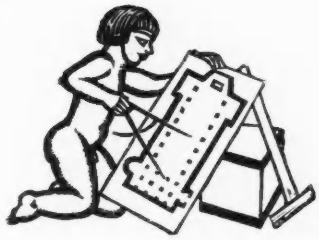
In the City of Amsterdam all buildings are inspected by the city architects and surveyors. Dwellings are classified in three groups according to whether they are uninhabitable, capable of improvement or are in good condition. In the opinion of Herr Keppler, the Director of Housing Services at Amsterdam, this expert study and analysis is indispensable before a conclusion can be reached as to which buildings should be condemned and which can be preserved. Compensation for property demolished is based in Holland on market value, and for buildings in good condition full value is paid.



THE GARRICK THEATRE, SOUTHPORT, LANCS.: THE VESTIBULE DOORS

GEORGE E. TONGE, ARCHITECT

Beyond these doors are seen indications of the short flight of stairs leading up to the grand foyer. The street doors are behind the camera, and to their right is the pay office, illustrated on page 301. The vestibule is carried out in polished black glass and chromium, with a ceiling of black opalite. On either side of the skeletonized clock-face is a frieze of well-known characters in drama.



BUILDING—FIGURES AND FACTS

IN a leading article on February 20 *The Times* supported Mr. Neville Chamberlain in his contention, made in the course of a debate in the House of Commons, that it would be "grotesquely foolish to believe that on balance any improvement in employment" can be secured by a resumption of public works. In support of this *The Times* asserts that it "costs about £500 to give one man work for one year in this way," and comes to the conclusion that "expenditure on such a scale and giving so small a return must add to liabilities incomparably more than it adds to assets."

A contention of this nature, made, as it was, by the Chancellor of the Exchequer, and leading to the conclusion drawn by *The Times*, merits careful examination.

It is an accepted figure that the contractor for building and construction pays out, on the average, 40 per cent. of the amount spent on the work to labour, and 50 per cent. for materials, leaving 10 per cent. for overhead charges and profits. Of the 50 per cent. expended on materials, an average of 40 per cent. represents wages paid by the manufacturer of the materials and the remaining 10 per cent. covers overhead charges and profits. On the whole, therefore, 80 per cent. of expenditure on building and construction goes as wages either in making materials or in assembling them, excavating, etc.

Using these proportions, it is possible to assess the amount of employment that would be provided, on the average, by a programme of building and construction work. Suppose, for the sake of illustration, that such a programme is drawn up and £100 is expended every week. The contractor will spend £40 on wages, employing fifteen men for the week at £2 15s. per week.

The figure quoted by *The Times* apparently only took this employment into account, and, on this basis, it agrees with the above calculation. But, obviously, the employment provided in the manufacture of the materials must also be taken into consideration. The maker of materials, to pursue the illustration, will also spend £40 during the week on wages, employing another fifteen men. This supports the well-known contention that a man employed in building and construction work requires another man to provide him with materials.

The total employment provided, then, in the building and material industries, amounts to thirty man-weeks, so to say.

But the matter does not end there. Not only are thirty men employed for a week, but they are given £80 to spend, so there is, as it were, a stream of purchasing power flowing from each man amounting to £80 in all. This £80 does not disappear, as some of the opponents of public works suggest, but goes out again, in payment for the necessaries of life for our thirty workers. The demand for the products of the industries which make those necessaries is accordingly increased by £80.

It would appear from the figures in the Report of the Committee on Industry and Trade, that, at a conservative estimate in these industries, about 40 per cent. of the total cost is labour cost. We may, therefore, employ this percentage to assess the effects on unemployment of such expenditure by those employed in the building and materials industries.

Of the £80 paid out for food, clothing, etc., 40 per cent.—or £32—is paid out on labour in the manufacture and distribution of the articles. This will employ eleven men for the week at £2 15s. But this £32 is again paid out for food and clothing, and 40 per cent.—or £13—is again paid out in wages. This will employ four men for a week. The total indirect employment created in these industries is therefore fifteen man-weeks.

The total employment created by the expenditure of £100 is thus forty-five man-weeks. Thirty men are employed for a week in the building and materials industries, and on the whole these thirty require an additional fifteen men to supply them with the necessaries of life.

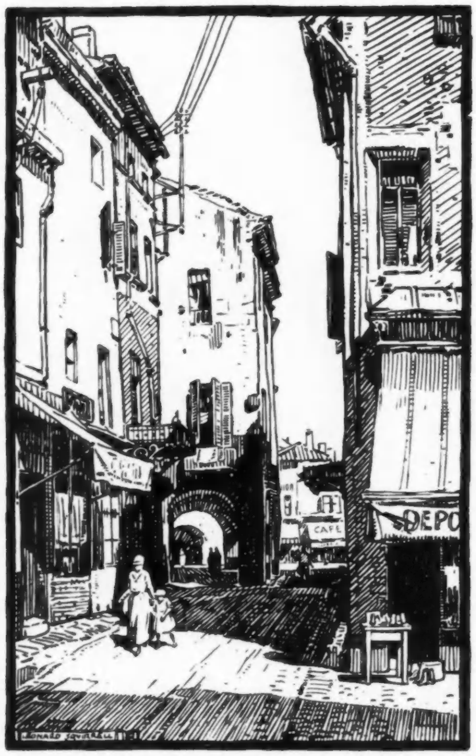
We are now able to determine the accuracy of the statement that expenditure on building and construction "must add to liabilities incomparably more than it adds to assets."

The fact that forty-five men are employed who would otherwise be unemployed means, first, a saving of unemployment benefit. At the rate of 25s. per week this represents a saving in the week of £56 5s. Secondly, not only are these forty-five men not being maintained by the unemployment insurance fund, but they are now contributors to that fund. This represents a further saving of £3 15s. in the week.

To correspond to the item of "£100 spent on building and construction" on the debit side of the account, therefore, one must put on the credit side the building and construction work worth £100, and a saving to the unemployment funds of £60 in the week.

The statement that such a policy adds more to the liabilities than to the assets is thus diametrically opposed to the truth. And that without taking into account other additional assets. For instance, the increased national income due to this policy would mean an increased yield from taxation, and in addition the buildings erected would be subject to rates. This would confer a great benefit on the national and local finances in addition to the benefit derived from increased employment.

Mr. Keynes has estimated that the expenditure of £30,000,000 on housing would increase the national income by £60,000,000, and that 20 per cent. of this—or £12,000,000—would represent the increased yield from taxation.



Arched houses at Lunel, Provence. A characteristic pen-and-ink study by Leonard R. Squirrell, finished examples of whose work are on view at the Fine Art Society. Another sketch is given on page 293.

NOTES & TOPICS

THE NATIONAL PLANNING RESOLUTION IN THE COMMONS

THE resolution I referred to last week, to be moved in the House of Commons by Dr. W. H. McLean, calling attention to the need for a National Development Plan, has been postponed. From the point of view of those who believe that it is essential to prepare a plan in order to assist local authorities to estimate what they must provide for under their schemes, this postponement is all to the good.

*

For, in the first place, Sir Robert Horne, who carries much weight in Parliament, intends to advocate business planning. Dr. McLean's resolution will also be more appropriate if it leads to a discussion just before April 1, the date on which the Town and Country Planning Act comes into operation.

*

RE-PLANNING GLASGOW : A JOB FOR ARCHITECTS

Glasgow is in need of re-planning. Heavens, is it not !

*

Glasgow, indeed, is by statute bound to engage itself upon a re-planning scheme, but when the Glasgow Institute of Architects put forward the suggestion that an advisory Committee on Amenity should work in conjunction with the Corporation, the City Engineer, Mr. Thomas Somers, objects that co-operation would serve no useful purpose and *that re-planning Glasgow is an engineering job.*

*

Planning a town is not engineering, but planning—designing, architecture.

*

Carrying out the ordered works is a branch of engineering known as civil engineering, and he who is responsible for such in a city is its city engineer.

*

To give into this man's hands work that was not too good for the best architects of the past in Edinburgh and other well-planned towns is a wasteful diversion of trained talent. The architects of Glasgow were too modest.

*

BUILDERS OFFERING EXTENDED CREDIT

I have been sent recently by more than one firm of local builders a circularized invitation to enjoy extended credit on the monthly instalment basis for any work I might wish them to carry out for me.

*

How very sensible ! Work is scarce, labour and materials cheap, and, speaking for myself, capital is low. Never was credit more useful than at this difficult present ; and even though I may be paying next Christmas for the new bathroom I am going to have in, I have the knowledge that I have paid no more than I should for work that is not badly done because the job is a small one. More power to their elbows !

*

THE G.W.R. BUILDING PROGRAMME

I find it surprising that those who are endeavouring to persuade our captains of industry to build and reconstruct have not given more attention to the example set by the Great Western Railway.

*

South Wales is notoriously a depressed area, and Cardiff almost a deserted village, but the directors of the G.W.R. are showing such complete confidence in the future that they are rebuilding the Cardiff station at a cost of over £1,000,000. When completed, it will be bigger than Paddington Station, and the arcades below will be models of convenience and skilled planning.

*

The stations in Bristol and Swansea are also being reconstructed by this company, who are thus showing their faith in the future revival of industry, and are taking full advantage of the present opportunity to carry out improvements when building costs are as low as they are likely to be.

*

THE ART OF LEONARD SQUIRRELL

I dropped in last week to the exhibition of works by Leonard R. Squirrell, R.E., R.I. The quiet charm of his art is best seen in his water-colours, which form the larger part of his show, though his versatility is expressed in oils, etchings and pastels. His interpretation of landscapes and architectural subjects is straightforward, but though he observes detail closely, his expression is far too subtle, and his colour sense too delicate, for his work to bear the photographic stamp.

*

ELEGANCE IN HALIFAX

What lasting powers a good piece of design possesses! A stranger visiting Halifax—grim enough town, goodness knows—unearths a building known as the Old Piece Hall, and on the strength of this work of eighteenth-century elegance calls Halifax "the aristocrat of the West Riding."

*

I would like to know more of the Old Piece Hall, which I understand to be a two-story quadrangle, built up of small rooms connected by galleries, and used in the past by the clothiers as stores between markets. The original uses soon disappeared, I fancy, yet the thing remains intact, elegant and austere. I'm sure it is worth knowing more of.

*

ECCLESIASTICAL ART

Surrounded by the works of the great masters of Italian painting, the Pope has solemnly and categorically condemned modern religious art, and, by inference, all modern art.

*

In the storm that followed, one side maintained that it was the purpose of *sacred* art to foster religious fervour and to elevate taste, and not to exist for art's sake alone; while the other, pointing to the works of the great masters, reminded their opponents that these men were certainly artists first and churchmen second; and asked, rather pertinently, what quality of religious fervour and what degree of elevation the trumpery figures and tinsel ornaments commonly found in Italian churches could be thought to excite.

*

A wordy battle rages, but could only rage if it is allowed that there can exist in a healthy state such anomalies as *ecclesiastical* painting, ecclesiastical furniture, or ecclesiastical architecture. No such thing existed in Michelangelo's days, and, by slow degrees, it is ceasing to exist for us today.

*

GUILDFORD CATHEDRAL FOUNDATIONS

There has been a good deal of talk among Guildford people of the needlessness of a cathedral there, of the bad site chosen for it, and the costliness of the foundations made necessary by the nature of the subsoil. These fears have been dispelled by a letter from Mr. Edward Maufe, the architect, to Lady Cawdor.

*

Mr. Maufe pointed out that the cathedral is for a diocese, not a parish, and that the possibilities of the site to the west of the town and near the new by-pass road have been insufficiently realized by local people. As to that, a great wooden cross is to be erected on Stag Hill, for all to see, to advertise the site.

*

And as to the foundations, these, costing £24,000, may work out at some 12 per cent. of the total cost, instead of the 7–10 per cent. to be obtained under very favourable conditions—if indeed such conditions are ever possible for a construction of this nature. The proportion does not seem excessive.

*

Incidentally, the Archdeacon of Surrey has stated that he does not think the diocese will be able to afford to build in stone, but thought they could in flint, which is a local material. He foreshadowed "buttresses on the outside" and modifying the design "so as to break up the long lines"—in short, in point of alterations, the history of Liverpool Cathedral is likely to be repeated.

*

"FUMIFUGIUM"

What a charming idea of the Smoke Abatement Society to republish *Fumifugium*! It is, perhaps, the earliest piece of anti-smoke propaganda, and by John Evelyn, who, as the author of *Sylva*, nearly changed the face of rural England single-handed—or is it single-minded?

*

Fumifugium, as republished, will be additionally valuable as being introduced by no less a person than Rose Macaulay. And all this—literature, history and propaganda—between stiff boards for 1s. 6d., or, paper-covered, for 6d.

*

A TWELVE-STORY SKYSCRAPER

The first skyscraper has recently been erected in Amsterdam—an apartment house twelve stories high! Most of the houses in this city are built on piles, owing to the marshy character of the ground, and I am told that the foundations of the twelve-story skyscraper caused more difficulty than those of the Empire State building of 84 stories caused the American engineers. On a clear day it is possible to see as far as Utrecht from the top of the new building.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, March 1

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. Lecture by Alfred Bossom, F.R.I.B.A. 6 *p.m.*

ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.1. Winter Exhibition, 10 a.m. to 6 p.m. 10 *a.m.*

BRITISH INDUSTRIES FAIR. At Olympia and White City (London) and Castle Bromwich (Birmingham). Until March 3.

LIGHTING SERVICE BUREAU, 2 Savoy Hill, W.C.2. "Lighting of Schools." By C. A. Hughes. Discussion to be opened by T. S. Tait, F.R.I.B.A. 7 *p.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—VII." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

Thursday, March 2

WEST YORKSHIRE SOCIETY. At the College of Arts, Leeds. "Modern Approach to Architecture and its Equipment." By Serge Chermayeff, A.R.I.B.A. 7 *p.m.*

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Mediæval Halls and Palaces." By A. S. Walker. 7.30 *p.m.*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 Lincoln's Inn Fields, W.C.2. "The Design and Quality of Workmanship of Old Furniture." By R. W. Symonds. 7 *p.m.*

INSTITUTION OF CIVIL ENGINEERS, Gt. George Street, S.W. "The Zuyder Zee Works." By V. J. P. De Blocq van Kuffeler. 6 *p.m.*

Friday, March 3

R.I.B.A. Annual dinner to be held at *Claridge's Hotel, W.1.* 6.45 for 7.15 p.m. 7.15 *p.m.*

FACULTY OF ARCHITECTS AND SURVEYORS (London and Home Counties Branch). Annual Dinner and Dance to be held at *St. Ermin's Restaurant, Broadway, Westminster, S.W.* 6.45 *p.m.*

Saturday, March 4

Sunrise 6.41 a.m. Sunset 5.44 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS. Students' Section. Visit to the *Building Centre, 158 New Bond Street, W.1.*

Monday, March 6

R.I.B.A, 9, Conduit Street, W.1. Dance arranged by Social Committee. 9 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. Cantor Lecture. "Welding and Allied Processes for Engineering Purposes." By A. Stevenson, M.I.MECH.E. 8 *p.m.*

LONDON SOCIETY. Visit to the *Gramophone Co.'s Works, Hayes, Middlesex.* 2 *p.m.*

NEWS

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POINTS FROM THIS ISSUE

In Amsterdam, buildings are classified as uninhabitable, capable of improvement, or in good condition 287

The total employment created by the expenditure of £100 on building is forty-five man-weeks 289

Planning a town is not engineering, but planning—designing, architecture 290

London has 40 miles of sunken railway tracks or open cuttings 298

Sheep bones as pegs for fixing slates .. 299

A slum-dweller's method of destroying bugs 306

The humiliation of dying from influenza . . . we shall never be without this needless pain so long as our cities are without plan 307

London is fast becoming the industrial as well as the administrative centre of London 309

2,142 families of two to nine persons live, eat and sleep in one room only, in the Royal Borough of Kensington .. 309

●

THE ADELPHI BILL

The Adelphi Bill, which is due to come before the House of Lords on March 16, is to be sponsored by Lord Newton. The opposition is to be led by Lord Esher, Chairman of the S.P.A.B.

The object of the Bill is to repeal the Act of 1771, which provided that no building between Adelphi Terrace and the river should be more than twenty feet high. There are also provisions in the new Bill for carrying out the following work :—

> Widening of Adam Street, Robert Street, John Street ; a new street in continuation towards the south-east of Adam Street, as proposed to be widened under this section ; a new street in continuation towards the south-east of Robert Street, as proposed to be widened under this section ; a new street following the course of, or parallel with, Adelphi Terrace, commencing by a junction with Adam Street, as proposed to be widened and continued under this section, and terminating by a junction with Robert Street, as proposed to be widened and continued under this section ; a new lower roadway commencing at the north-east boundary of the Estate, continuing thence in a south-westerly direction and terminating at or near the south-west boundary of the Estate.
>
> Removing or altering any vaults, arches, cellars, etc.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,195. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

AN "ALL CLEAR" SIGNAL

The Minister of Health (Sir Hilton Young), speaking at a meeting of the Burnley Building Society on Friday last, said :

" I can make tonight an 'all clear' signal, all clear for the builders and building societies to build us the houses we want, all clear for the local authorities to get rid of the slums we don't want."

After reviewing the housing policy of the Government, he continued :

> As to the slums, we concentrate the energies and resources of housing authorities on the direct work of getting rid of them.
>
> We shall make a massed attack on the slums. Local authorities must wake up about them. Theirs is the first responsibility. We must have the whole force of public opinion to support the advance. The Government will back it up to the utmost. We set no limit to the pace of the work. The faster the better.
>
> It was hoped that the growth of municipal housing estates would result in a " filtering-up " of the slum-dwellers and the abolition of slums. That hope has been falsified. The new houses have not in general been occupied by the slum-dwellers, and the slums remain. Confronted with the failure of the policy of general subsidies to meet our chief needs we must not rest content with that policy. We must seek out the causes of the failure, and when we have found them, put them right.

£3,000,000 FACTORY

Building work is starting on the £3,000,000 steel and tube works at Corby, Hants, and (according to *The Industrial Daily News*) orders for hundreds of thousands of pounds worth of plant are about to be placed with the engineering industry.

MR. BALDWIN'S NIGHTMARE

Speaking at the annual meeting of the Abbey Road Building Society, held in London on Saturday last, Mr. Stanley Baldwin said : " We must all get together—everybody who can influence the work of building—the Government, the building societies, and private individuals.

" It must be all hands to the pumps with this work, the greatest and most important that lies before us during the forthcoming year. Let us work and get on with it.

" The one nightmare of my life for years past has been the unemployment problem. You may well think how I rejoice to feel that we have now the hour in which we can and ought to start work with new vigour and a new spirit. The Government, I am glad to say, is working hand in hand with the building societies in full sympathy and understanding."

UNIVERSITY OF LONDON

It was announced last week that the King is to lay the foundation stone of the new University of London buildings in Bloomsbury on June 26. His Majesty will be accompanied by the Queen.

The architect for the buildings, estimated to cost £3,000,000, is Mr. Charles Holden.

TOWN HALL FOR OLNEY

The unemployed of Olney, Bucks, propose to build a town hall free of charge. Every owner of the many derelict stone barns and cottages in and around Olney has been asked to give these to the Council in order that they may be demolished and the materials reused for the town hall. It is understood that the building will be designed by a London architect.

WEST YORKS. SOCIETY

Mr. R. J. Edmondson presided at a meeting of the above Society, held at the Keighley School of Art on February 23, when a lecture on " Architecture and the Student " was given by Mr. W. M. Keesey. In the past, he said, architecture as a subject for the student had been unrelated to study in general.

New materials and methods of construction were rapidly affecting design and the tuition which accompanied it, and the latter was being governed by the new demands which invention and industrialism were making upon the architectural treatment of new and varied problems. The "Grand Tour" which in centuries past every gentleman of means was supposed to make through Europe, and in which a study of architecture formed not the least feature, had its modern equivalent in travelling scholarships.

EMPIRE TIMBERS

Following the recent Exhibition of Furniture and other articles in Empire woods at the Forum Club, the Building Centre are displaying in the window of their premises at 158 New Bond Street a collection of samples of Empire timbers presented by the Empire Marketing Board, and on permanent exhibition at the Centre.

The collection of woods on view at

the Centre consists of specimens of the timbers dealt with in the Empire Marketing Board's Handbook, copies of which may be had free, while the somewhat limited supply lasts, by architects or other interested persons on application to the Secretary, Empire Marketing Board, 2 Queen Anne's Gate Buildings, Westminster, S.W.1.

ROME SCHOLARSHIP

The Faculty of Architecture of the British School at Rome have admitted the following candidates to the competition for the Rome Scholarship in Architecture, 1933:

Messrs. P. B. Dunham, (Bartlett School of Architecture, University of London) ; J. A. Pinckheard (Architectural Association) ; D. McIntyre and J. C. Clavering, (Armstrong College, University of Durham) ; J. R. Baxter, A. G. S. Fidler, B.ARCH., and E. Farrar (Liverpool School of Architecture) ; J. T. Cahill, B.ARCH. (University of Manchester) ; G. H. Lawrence, A. Reiach, and P. H. D. Ronaldson (Edinburgh College of Art).

MR. COPPOCK AND HOUSING

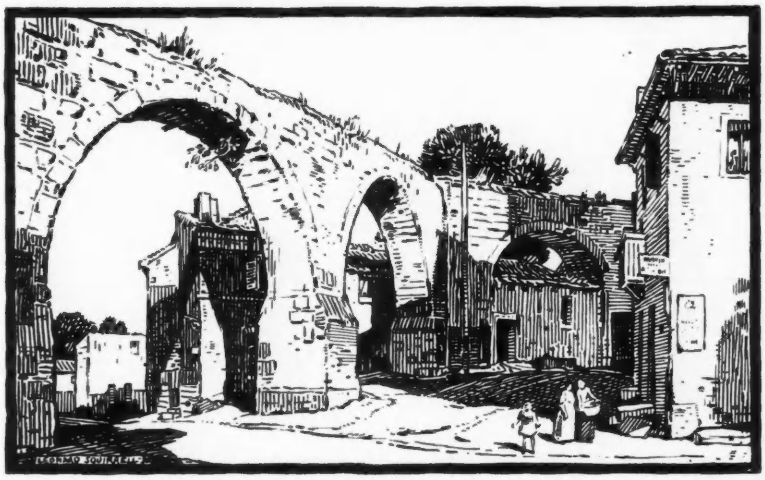
Mr. R. Coppock, General Secretary of the National Federation of Building Trade Operatives, in the current issue of *The New Statesman and Nation*, contributes an article to the series now being published on housing. He follows Sir Ernest Simon, Mr. Keynes and Sir Raymond Unwin in attacking the Government's present housing proposals, and urging the need for a national effort. Extracts from Mr. Coppock's article are printed below :—

Never in the political history of our country has the fear of consequences been so exploited by any Government in an endeavour to reduce the standard of living of the nation as by the one now in office at Westminster. And behind this fear-complex there is being put through the most reactionary legislation of modern times—reduction of our educational standards, the new Rents Restriction Bill, etc., and, finally, the Housing (Financial Provisions) Bill, which has been termed by Sir E. D. Simon the "Anti-housing Bill." No Minister has ever by his actions created so much poverty and distress as the present occupant of this high office of State—the Minister of Health.

The present position of the building industry, with its colossal figures of unemployment, can be traced to the administrative acts of the Ministry of Health. The issue of the now infamous circular to local authorities in September, 1931, was responsible for the holding up or abandonment of building work to the value of £75 million, which I stated at the time to the Minister would paralyse the industry and force thousands of workers in the building industry and public works on to the unemployment funds of the nation. The circular created the fear-complex throughout the local authorities.

It is not generally known that the Minister of Health and the Chancellor of the Exchequer also prevented the building of houses for rural workers under the Rural Housing Act of 1931.

The present Housing Bill before the House is not a progressive measure at all. It is in truth a repealing Act, but so artfully has it been drawn up that the nation is again discussing housing as though the Bill were the last and final act required to provide houses for the poor and badly paid industrial worker. The bill guarantees nothing at all so far as houses are concerned.


The Old Aqueduct at Castries: Pen-and-ink study for a water-colour drawing on view at the exhibition of drawings and etchings of Leonard Squirrell, now being held at the Fine Art Society. (See note by Astragal on page 290.)

I agree with Sir Raymond Unwin that this question can be dealt with only on planned lines. I would advocate the establishment of a National Development Board, representative of the building industry, local authorities and the State. The Board would be nationally financed by means of direct taxation with no interest charges, and repayment would be made to the Board in the form of rents to enable it to undertake further building. I would give the Board powers under the Housing Acts, Town-Planning Act, Public Health Acts and—for road-making powers—the Road Traffic Act. Decentralisation would be operated through county committees : each year the Board would budget for housing developments and slum clearance. The plan should be operated to produce a million houses in four years, and the money required would amount to approximately £350 million. This figure may stagger the uninformed, but when we remember that in these times of peace we spend some £600 million annually for past and future wars, the sum mentioned for housing purposes is not so very much after all.

HOUSING LOANS

A statement was issued last week by the Ministry of Health to clear up a misunderstanding regarding its policy towards local authorities who seek loans for housing schemes.

A letter to an Urban District Council was interpreted as meaning that no loan will be granted until the Minister has satisfied himself that private enterprise has failed to provide houses for the working classes. It is of importance, states the Minister, this misunderstanding should be removed. The statement continues :—

The powers of local authorities to build houses under Exchequer subsidy as against slum clearance schemes under the Act of 1930 remain entirely unaffected. In other cases, where local authorities desire to meet a general need for working-class houses in their area by building without subsidy, it is not the intention of the Minister to hold up applications from such authorities for loans for housing, pending general experience as to the success or failure of private enterprise in providing houses for the working classes. In the future, as in the past, applications will be considered by the Minister in relation to the circumstances of each case.

Where the Minister is satisfied that the needs of the locality, both as to the number and the time of completion of such houses, are not likely to be met by private builders, the application will be favourably considered in accordance with the usual practice.

OUR UGLY CITIES

Mr. Thomas Howarth, President of the Institute of Builders, speaking at its annual dinner, held on Thursday last, said he sympathized with the desire for cheaper houses, but if it meant more mean streets in our already ugly cities then standardization was an evil.

NATIONAL CREDIT

Mr. Winston Churchill, speaking to his constituents at Epping on Thursday last, asked why the national credit had not been used to finance schemes of constructive work during the winter. It was an ideal opportunity. Money was cheap, building materials were cheap, and labour, unhappily, had never been more abundant. Work might have been found for 100,000 men.

SOUTHAMPTON CIVIC CENTRE

The Southampton Borough Council have applied to the Ministry of Health for extended borrowing powers to enable them to build the third block of the Civic Centre. The Ministry will hold an inquiry on March 7. The cost of the Town Hall block is £175,000.

R. I. B. A.

SOCIAL ACTIVITIES

The annual dinner of the Institute will be held at Claridge's Hotel, Brook Street, W.1, on Friday, March 3. 6.45 for 7.15 p.m.

On Monday evening next, March 6, a dance will be held at the R.I.B.A. The dance starts at 9 p.m., and will last till 1 a.m. Tickets which cost 6s. (including refreshments) can be obtained by or through members, and applications should be made to the Secretary, R.I.B.A. Social Committee, 9, Conduit Street, W.

FINAL EXAMINATION

The requirements for the Final Examination Problem in Design have been amended, and are now as follows :

The Design for a Maternity and Child Welfare Clinic may, after it has been approved, be re-submitted with the addition of working drawings consisting of complete half-inch details of an important part of the building, showing internal details, together with a sheet of full-size details.

EXHIBITION

In October, 1928, an exhibition of black and white and colour work by members of the R.I.B.A. was arranged at the Institute Galleries, and in view of its outstanding success the Art Standing Committee have decided to arrange a similar exhibition to be held from May 5 to 22.

All works sent in for exhibition will be submitted to the judgment of the Selection and Hanging Committee, whose decision will be final. Exhibitors will be required to pay the cost of carriage and insurance during transit and to make arrangements for the collection of their works at the close of the exhibition.

In order that the Committee may be in a position to formulate some idea of the amount of work available, members who are willing to submit black and white drawings, original etchings or engravings, and drawings in any medium, for consideration by the Committee are requested to write to the Secretary R.I.B.A. not later than March 18, 1933, giving the following particulars :

i : Sizes. ii : Subjects (these need not necessarily be architectural). iii : Names of artists. iv : Nature of medium in which drawings are rendered. v : Whether the works are framed and glazed (all drawings *must* be mounted). vi : Approximate value of each work. vii : Whether the exhibits are for sale or not. In this connection it is proposed that not less than 25 per cent. of the proceeds resulting from the sale of any work in the exhibition should be given to the Architects' Unemployment Relief Fund.

Drawings by deceased members may be submitted if they are for sale.

It is particularly requested that members should not submit the drawings until notice is sent to them.

ARCHITECTS' WORKING DRAWINGS

An exhibition of architects' working drawings will be held in the R.I.B.A. Galleries from Wednesday, March 8, to Friday, March 17, inclusive.

The exhibition will be open daily between the hours of 10 a.m. and 8 p.m. (Saturdays, 5 p.m.) and will include drawings lent by :—

Mr. Joseph Emberton, F.R.I.B.A. (Royal Corinthian Yacht Club, Burnham-on-Crouch) ; Mr. C. H. Holden, F.R.I.B.A. (Sutton Valence School Chapel ; Arnos Grove Station, Piccadilly Railway ; Metropolitan District Railway Offices, Acton) : Messrs. Ivor Jones and Percy Thomas, A/F.R.I.B.A. (Swansea Civic Centre ; a Small Public House) : Messrs. Richardson and Gill, FF.R.I.B.A. (St. Margaret's House, Wells Street, W.1.).

The exhibition will contain the drawings that a practising architect hands to a contractor, and some very comprehensive sets will be shown. A good idea will be given of the volume of work which must be done by an architect's office to produce a building.

A Special Students' Evening will be held at the exhibition on Tuesday, March 14, at 8 p.m. All students are invited to attend. It is hoped that the architects (or their representatives) who have lent exhibits will be present in order to explain the drawings to the students. Refreshments will be provided, and no cards of admission are required.

CHRISTMAS HOLIDAY LECTURES

The Council of the Institute offered four prizes of books for the best essays on the recent series of Christmas Holiday Lectures for boys and girls given by Mr. Eric R. Jarrett, A.R.I.B.A., at 9, Conduit Street.

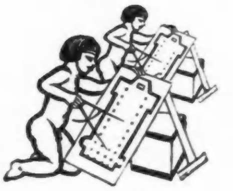
The prizes have been awarded to the following :—

Beatrice Bennister (Clapham County Secondary School), Peggy Clark (Mary Datchelor Girls' School), J. W. Gray (Dulwich College), David Harding (School of Cookery, Westminster Technical Institute).

ON THE AIR

Mr. Howard Marshall, on Monday next, will continue the B.C.C. series of talks on "Other People's Houses" with "An Eye-witness Account of Existing Conditions in Leeds." The talk will be broadcast in the National Programme at 9.20 p.m.

COMPETITION NEWS



MUNICIPAL OFFICES AT STOKE NEWINGTON

The Stoke Newington Borough Council, at a meeting held on Tuesday of last week, passed the following resolution in favour of a competition for new municipal offices, etc.:

"That the site, Nos. 166-180 Church Street, be used for the extension of the public library and the electricity undertaking and for the provision of new municipal offices, and that authority be given to the appropriate Committee of the Council to expend the sum of not more than £400 in respect of competitive designs for the proposed scheme."

It is expected that the sum of £400 will be allocated as follows : £250, £100 and £50. The scheme is estimated to cost between £40,000 and £80,000.

DESIGNS ON PANELS

The Silicate Paint Co. (J. B. Orr & Co., Ltd.) are organizing an open competition for students, apprentices, operatives or masters of the painting and decorating trades for decorative designs on panels. Five panels will be selected from those submitted and prizes as follows will be awarded :—1st, £6 6s. ; 2nd, £4 4s. ; 3rd, £3 3s. ; 4th, £2 2s. ; 5th, £1 1s. Full particulars are obtainable from the company at Charlton, S.E.7.

Competitions Open

March 15.—Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Open to architects who have been in practice, either as individuals or as partners in a firm, for at least twelve months prior to March 1, 1933. Assessor : A Graham Henderson, F.R.I.B.A. Premiums : £200, £100 and £50. Applications for conditions of competition and plan of site should be made to William Shaw, Town Clerk, Burgh Chambers, Prestwick, Ayrshire, together with a deposit for £2 2s., on or before March 15 next. If the applicant decides not to enter, conditions, etc., must be returned before April 15. Designs to be submitted to the Town Clerk not later than 12 noon on May 8.

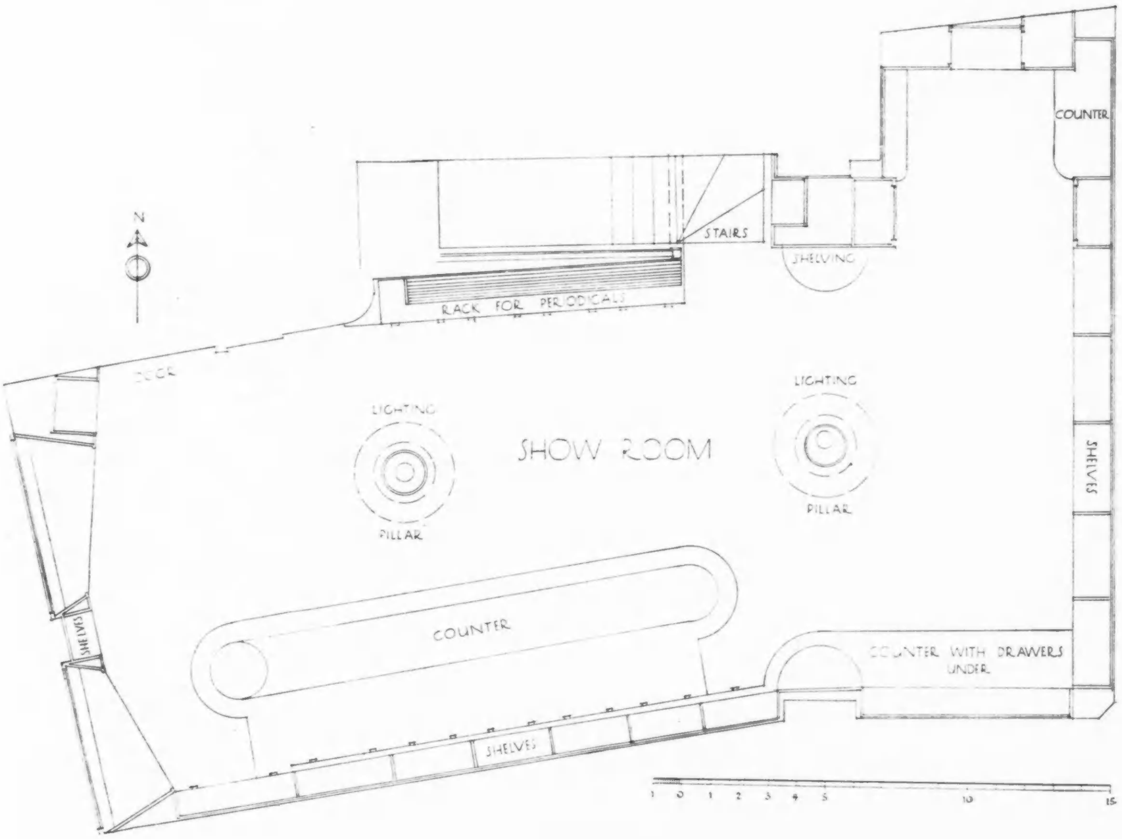
March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First Prize, £50. Conditions etc., were published in *A.J.* for Feb. 1.

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street, W.1, from whom full conditions are obtainable. Premium : £100.

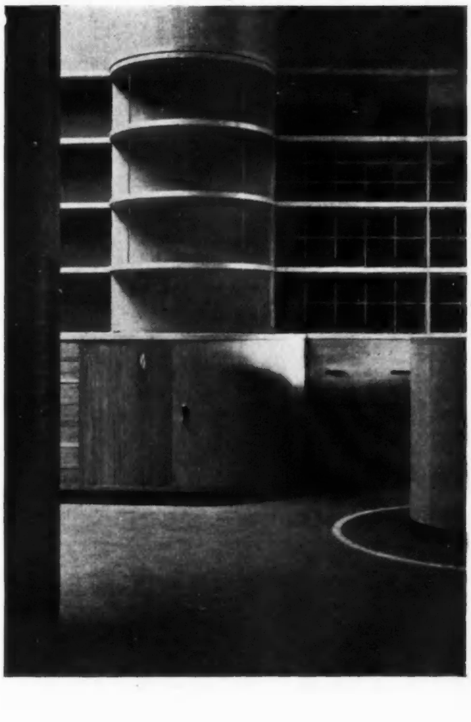
April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums : £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

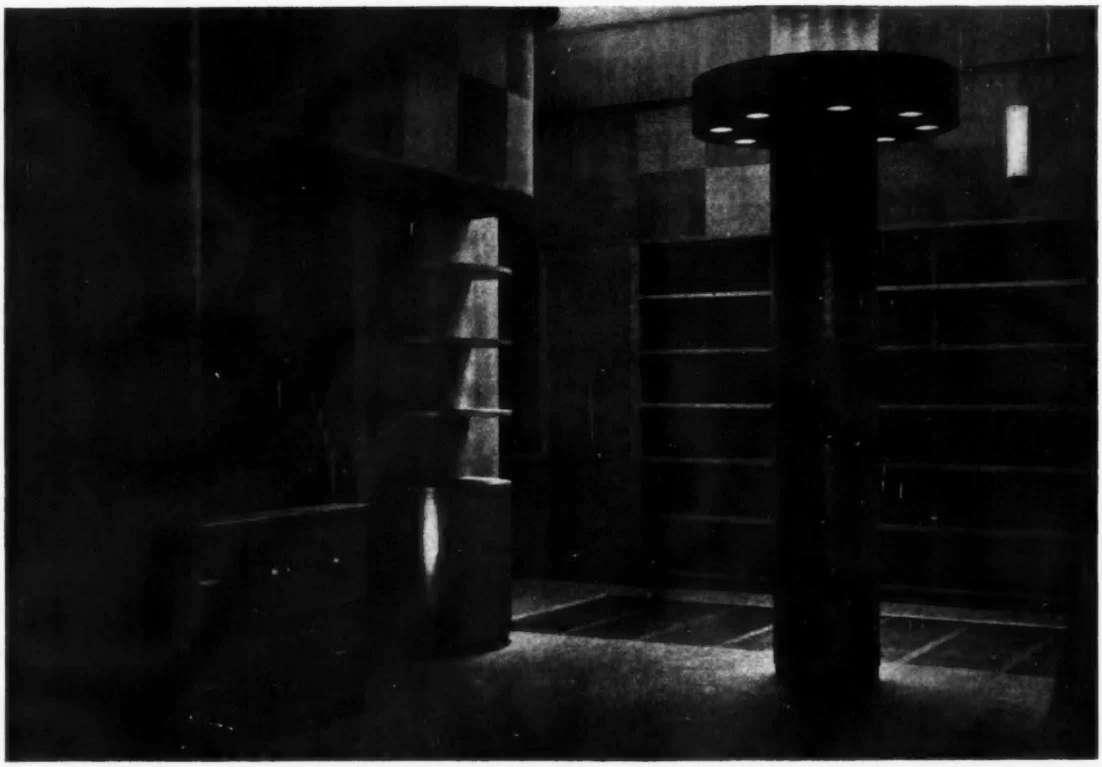
SHOWROOM INTERIOR : DESIGNED BY L. H. BUCKNELL

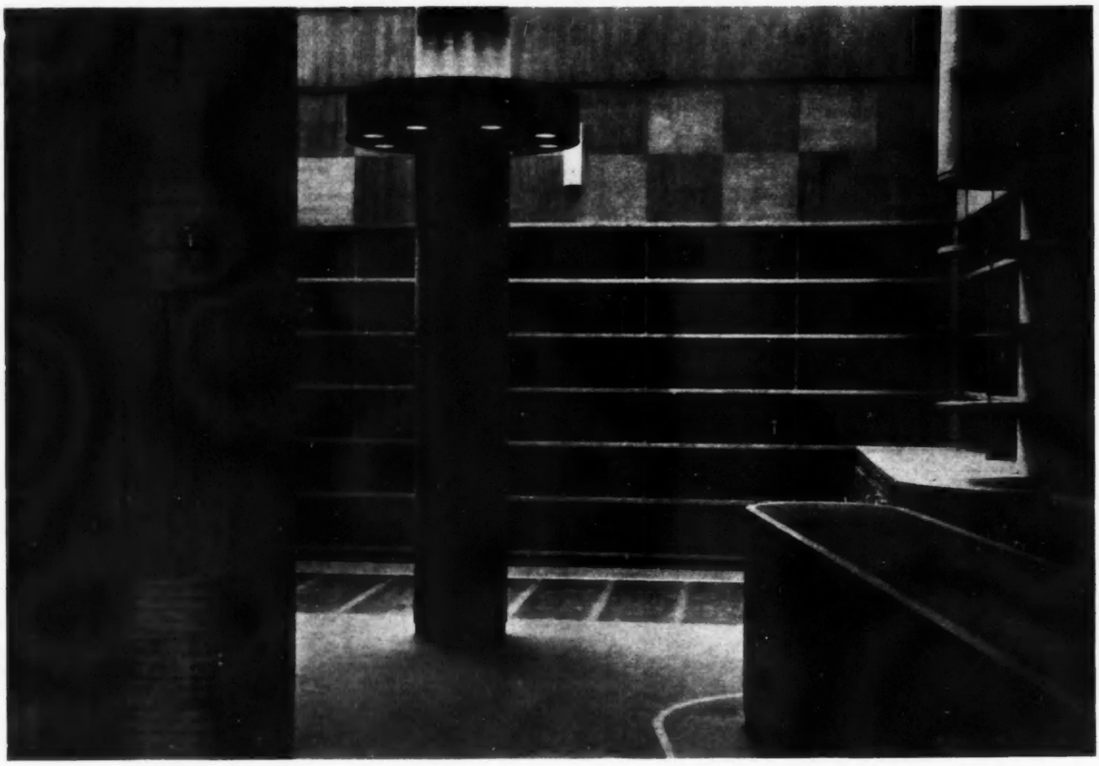

N
STAIRS
SHELVING
COUNTER
RACK FOR PERIODICALS
DOOR
LIGHTING
SHOW ROOM
LIGHTING
PILLAR
PILLAR
SHELVES
SHELVES
COUNTER
COUNTER WITH DRAWERS UNDER
SHELVES
1 0 1 2 3 4 5 10 15

In its original condition the shop acquired by Dryad Handicrafts, at 22 Bloomsbury Street, W.C., had the usual cast iron columns, with foliated caps, an indifferent cornice, and doors of a common type, with cut glass panels. There was also an ugly bulkhead, in matchboarding, by the stairs. This has been turned to account as one of the most interesting features of the new interior, having been encased (like the columns) and made into a stepped rack for books and pamphlets as shown in the upper view on the following page. The shelving surrounding the walls effectively masks the cornice; the pillars carry wide, shallow cylindrical lighting fittings; the doors have been cased flush with plywood. Doors, rubber-topped counter and other important features are faced with figured sycamore veneer, polished the natural colour. The ceiling, pillars and the plain wall surfaces above the racks and shelves have been covered with silver-grey wood veneer paper, laid in a diaper pattern; above, on the walls, is a band of lemon-green. Further details of the colour-scheme are given, together with drawings and other illustrations, in a supplement presented with this issue.

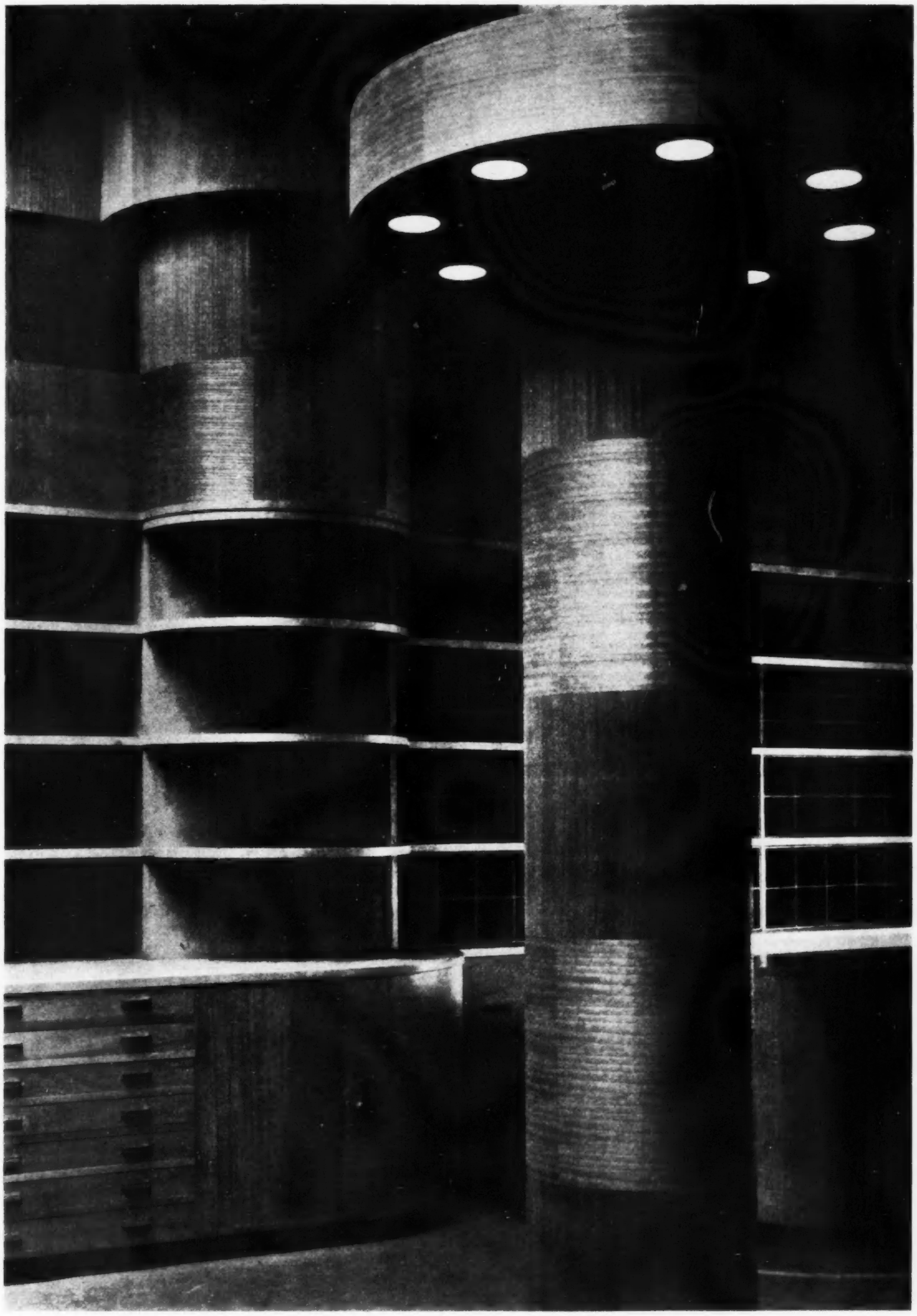


SHOWROOM INTERIOR FOR DRYAD HANDICRAFTS,





BLOOMSBURY, W.C. : DESIGNED BY L. H. BUCKNELL



LETTERS FROM READERS

THOMAS WALLIS, F.R.I.B.A.
ALFRED BOSSOM, F.R.I.B.A.
A. SEYMOUR REEVES
(Secretary, A.A.S.T.A.)
LEONARD BARNISH, F.R.I.B.A.
(President, Liverpool Architectural Society)
PERCY THOMAS, F.R.I.B.A.
SIR LEONARD HILL, Hon. A.R.I.B.A.

Factory Architecture

SIR,—The idea seems to have got abroad that new buildings are a luxury.

From my own experience, which has to do mainly with factory building, I can state quite definitely that it pays the owner to replace an obsolete factory with a new up-to-date one.

I have been associated with the building of new factories in almost every part of the country during the past year or two, and in every case the new building has resulted in diminished costs and increased production. One owner in the Midlands told me that after nine months in his new building his costs of production had dropped by 20 per cent.: his output itself had increased both in quantity and quality.

At least 75 per cent. of our factories are obsolete and if we are to prosper in the markets of the world, there is no doubt whatever that this state of affairs must be remedied. Wise manufacturers are setting their house in order now when the costs of building are at rock-bottom.

It does not take the eye of an expert to see that the new factories are the prosperous ones.

THOMAS WALLIS

Smoke Abatement and the Slums

SIR,—The imperative demand for slum clearance has received practical endorsement from the Minister of Health.

But there is a very definite impediment to its rapid accomplishment due to the inability and even non-existence of land upon which to construct decanting buildings in which to house the slum-dwellers while their existing habitations are replaced with new ones.

This difficulty throws an appalling cost upon this undertaking and frequently compels the transplanting of the present slum-dweller into a district in which he is not congenial with his environment, and certainly his environment does not desire to become congenial with him until he has been educated away from his slum-creating habits.

London has forty miles of sunken railway tracks or open railway cuttings, which are capable of being easily covered and thus made available either for the construction of decanting tenements, etc., or permanent open spaces, thus stopping and at the same time controlling the belching of the coal smoke day in and day out from the very necessary, incessant trains, thus creating a double benefit and a strong endorsement of the smoke abatement campaign that is now so actively under way.

The covering of the railway tracks with reinforced concrete mats inflicts no impediment or hardship upon the railway, but justifies them in collecting an air-right rent and also produces a real benefit to those who live in the proximity of these cuttings.

Where the lines are not yet, and do not quickly become, electrified, there is no need to wait, for by arranging an open metal tube in the top of any tunnel under such a concrete mat or roof and by putting up shafts for two or three hundred feet, it is possible to carry these smoke fumes from every passing train to the top of any building in the neighbourhood, as though through a chimney, and thus dispose of the engine-vomited smoke above the level of the adjacent structures until such time as electrification does take place.

This principle is in existence in Chicago, where all the trains from the great trunk lines enter the city below the surface and the smoke is carried up through such up-shafts as here mentioned, and the problem in London, Birmingham or such of our cities would be much less difficult, for our buildings do not reach the tremendous altitudes of those gigantic American skyscrapers.

By decanting our slum-dwellers into buildings constructed over sunken railway tracks the double advantage of slum clearance and smoke abatement may be gained, and gained without the interminable delay accompanying legal processes, etc., that today are inseparable from any such effort.

It is strongly urged that all who are sympathetic towards these essential and desirable conditions will push to the utmost at the present time to see first that every legal or statutory impediment to such a progressive movement be ended and, second, that once these impediments are removed, this slum-clearance work be undertaken with a nation-wide concerted effort, for by limiting the slums the stamina of our race will be definitely improved, the elimination of the train's quota of smoke will certainly be beneficial to our atmosphere and lastly, our trains, which have certainly suffered financially, will get an incoming benefit which they do not now enjoy.

ALFRED BOSSOM

A Scale of Salaries

SIR,—It may not be unfair to infer that those of your correspondents who have raised the question of a scale of salaries for architects are not members of the Association of Architects, Surveyors and Technical Assistants for, if they were, they could obtain from this body the information and guidance which they are seeking.

But it is well to realize that a Scale of Salaries is only a partial remedy for the trouble complained of. The correlative remedy is unity among the men concerned.

So long as many do no more than call upon others to do something and on their own part carefully avoid the one thing that would be helpful, they must expect the unsatisfactory conditions which they describe.

A SEYMOUR REEVES

The Liverpool School

SIR,—In your issue for February 15 you mention that Professor Reilly's achievements included the foundation of the Liverpool University School of Architecture. I feel I must correct a statement that inflicts a wrong upon those who were responsible for its foundation.

Among the endowments of the University College (now the University of Liverpool), was the Roscoe Chair of Art founded by the citizens of Liverpool in 1881. In 1892 the chair became vacant and the Liverpool Architectural Society approached the Senate urging that steps should be taken to establish a School of Architecture. As a result of the Society's representations, the Roscoe Chair was devoted to architecture. The Liverpool Architectural Society worked tremendously hard for this cause and the names of the late Henry Hartley, F.R.I.B.A., W. E. Willink, M.A., F.R.I.B.A., T. Harnett Harrison, F.R.I.B.A. and Edmund Kirby, F.R.I.B.A., should not be forgotten. These are the men who laid the foundations of the Liver-

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[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]

pool School of Architecture and it is to them the credit should be given.

The late Frederick Moore Simpson became the first Roscoe Professor of Architecture in 1894, Professor Reilly following him in 1903. The foundation of the School is therefore claimed by the Liverpool Architectural Society.

LEONARD BARNISH

Sheep Bones for Fixing Slates

SIR,—A friend of mine has shown me some sheep bones which were used as pegs for fixing slates on some twelfth-century buildings at Amen Corner, Barnard Castle, co. Durham, reputed to be the site of the original shop of Thomas Humphrey, immortalized by Dickens in "Master Humphrey's Clock." I enclose a sketch of the bones and a photograph showing the house in course of demolition.

I wonder if any of your readers can inform me whether this was a customary method of fixing slates, and the approximate date of its origin?

PERCY THOMAS

The Wayside Pulpit

SIR,—As expected, the JOURNAL again contains its usual weekly wayside pulpit in reference to the Carlton Gardens controversy, and apparently the reinforcements are being brought up hourly, each new issue giving us the photographs of people who are giving their leisure time in the "cause."

Suddenly it has been discovered that the Doric columns are hollow and cast iron, and one reader, who has apparently been fighting on the wrong side, has retreated (*avec tail entre jambes*) to find a different coloured balloon.

It is particularly stimulating to find the support of the religious sects on the Defence Committee; if their ideals are as constructive as they would have us believe, then Carlton Gardens must stay—but is it not a false reverence of tradition which inevitably arrests progression? It is abortive and contrary to life.

Personally I think we should not take the Defence Committee too seriously, but should look upon it as another Mayfair diversion.

May I express my surprise at the members of the Committee, as I should have thought that such keen followers of blood sport would have been more interested in Japan and China.

INTELLIGENT IGNORAMUS

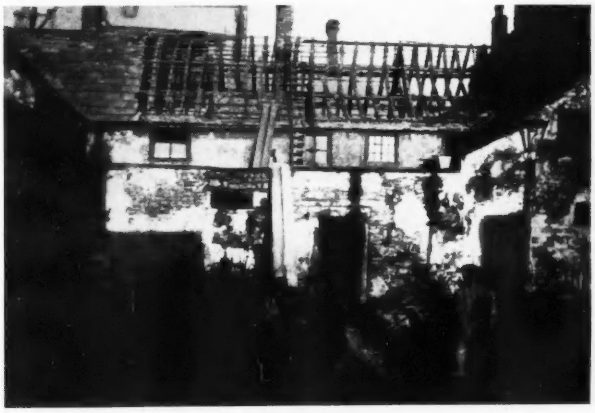
The Flueless House

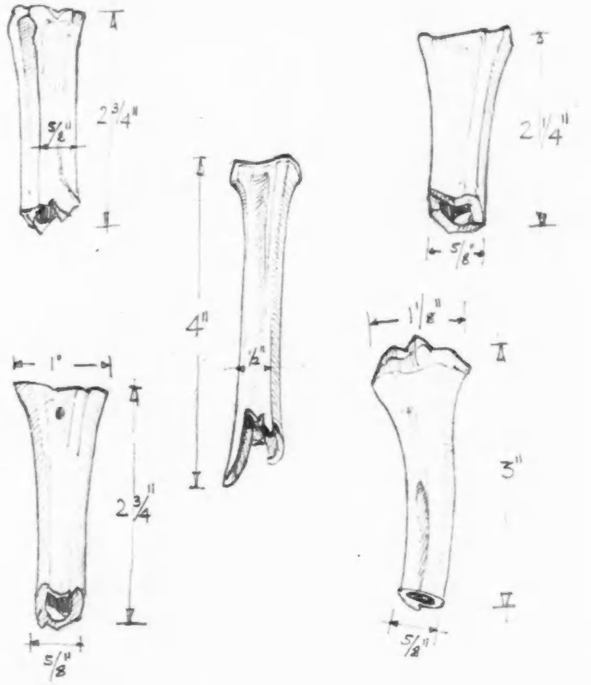
SIR,—From purely hygienic considerations, there is something to be said for the Bill which is now being promoted in Parliament to stop local authorities forcing their tenants to sign agreements to use one form of heating only. It is this elimination of choice which, in the past, has made possible the flueless house.

The theory that any form of heating justifies the abolition of the household chimney—the most important means of ventilation in the average home—without the substitution of an adequate flue, is bound to be opposed by all those interested in public health. The open fireplace, giving complete choice of fuel, should, in my view, be defended by all health officials as the hygienic right of those who live in small houses.

I am glad to see that the bigger local authorities are granting their tenants freedom of choice of fuel. Those which, in the past, built hundreds of flueless houses in order to induce their tenants to use exclusively the municipal electric supply for heating, must, in these days of economy, be realizing the folly of their policy.

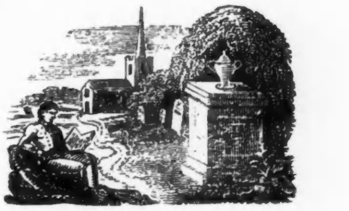
LEONARD HILL



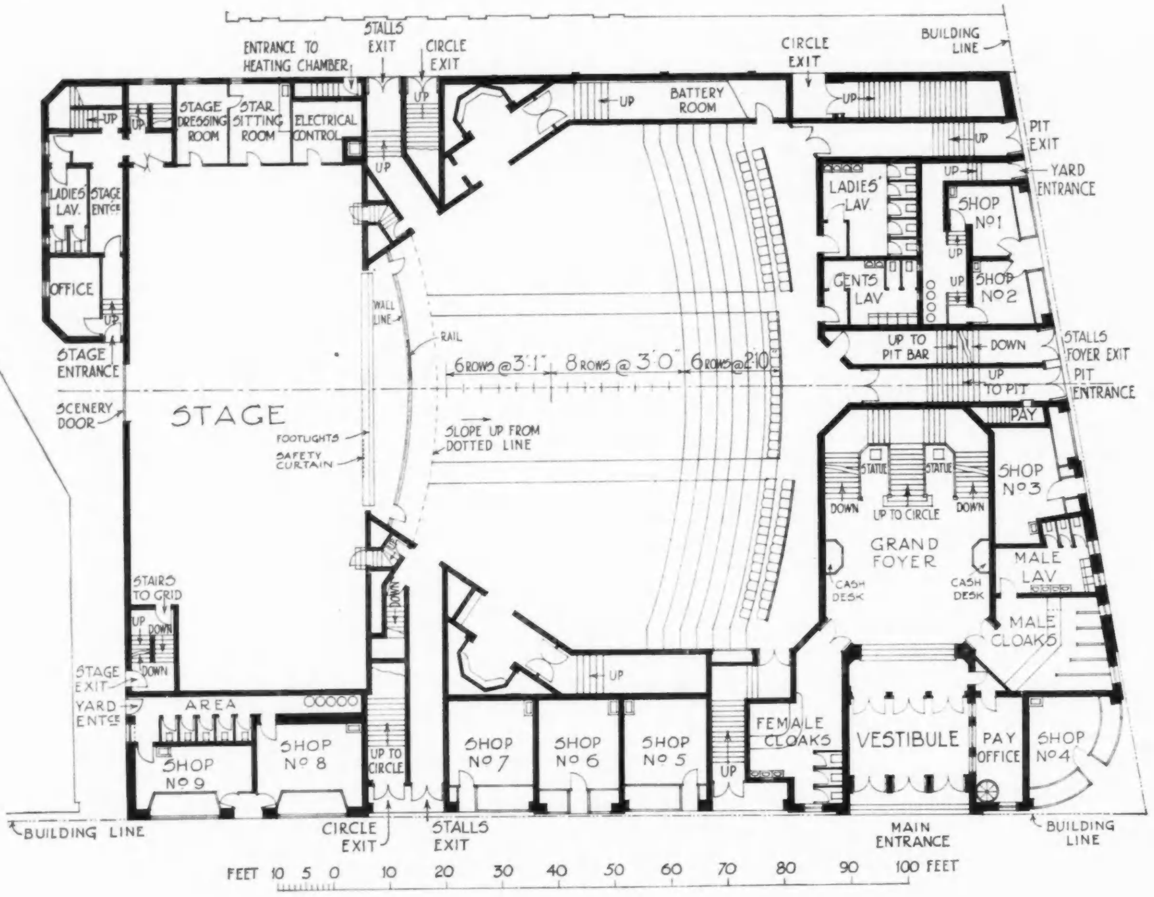


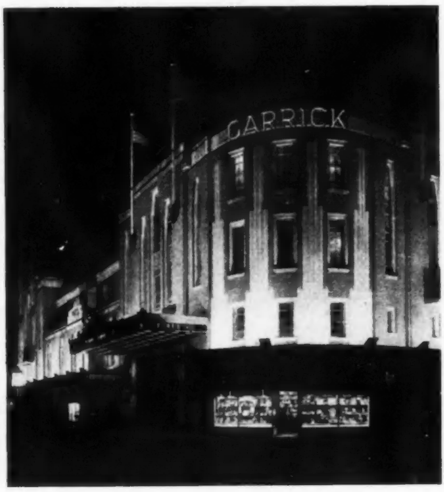
Twelfth-century buildings at Amen Corner, Barnard Castle, co. Durham, in course of demolition, and a sketch of the sheep bones which were used as pegs for fixing the slates. See letter by Percy Thomas.

Would the author of the letter on "Roofing Tiles," published in the JOURNAL for February 1, please forward his address.—ED. *A.J.*



THE GARRICK THEATRE, LORD STREET, SOUTHPORT,

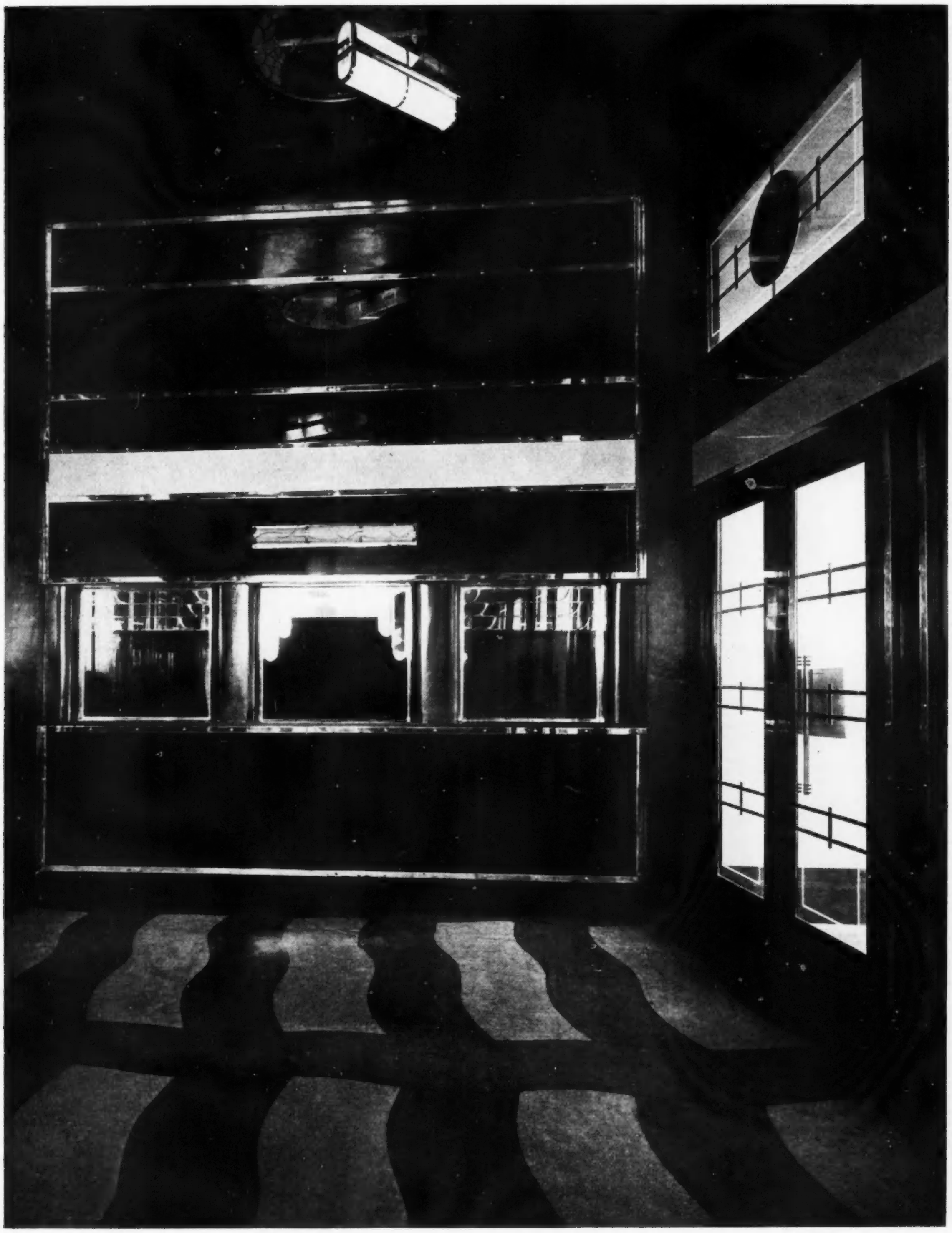

ENTRANCE TO HEATING CHAMBER
STALLS EXIT
CIRCLE EXIT
CIRCLE EXIT
BUILDING LINE
BATTERY ROOM
UP
STAGE DRESSING ROOM
STAR SITTING ROOM
ELECTRICAL CONTROL
PIT EXIT
YARD ENTRANCE
LADIES LAV.
STAGE ENTCE
OFFICE
LADIES' LAV
GENTS LAV
SHOP Nº1
SHOP Nº2
STAGE ENTRANCE
WALL LINE
RAIL
6 ROWS @ 3' 1"
8 ROWS @ 3' 0"
6 ROWS @ 2' 10"
UP TO PIT BAR
DOWN
UP TO PIT
STALLS FOYER EXIT
PIT ENTRANCE
PAY
SCENERY DOOR
STAGE
FOOTLIGHTS
SAFETY CURTAIN
SLOPE UP FROM DOTTED LINE
STATUE
STATUE
DOWN
UP TO CIRCLE
DOWN
SHOP Nº3
GRAND FOYER
CASH DESK
CASH DESK
MALE LAV
MALE CLOAKS
STAIRS TO GRID
UP
DOWN
DOWN
STAGE EXIT
YARD ENTCE
AREA
SHOP Nº9
SHOP Nº8
UP TO CIRCLE
SHOP Nº7
SHOP Nº6
SHOP Nº5
FEMALE CLOAKS
VESTIBULE
PAY OFFICE
SHOP Nº4
BUILDING LINE
CIRCLE EXIT
STALLS EXIT
MAIN ENTRANCE
BUILDING LINE
FEET 10 5 0 10 20 30 40 50 60 70 80 90 100 FEET



This new theatre, built on the site of the old Opera House, is intended to serve as a centre of interest in the drama; to which end the Garrick Theatre Club has been provided with a suite of rooms on the first floor, overlooking Lord Street. Moreover, the stage accommodation is laid out on most comprehensive lines, including one of the largest stages in the provinces—93 ft. wide, 43 ft. deep, 60 ft. high—a "star" suite, 30 large dressing-rooms, bathrooms, etc., so as to afford every facility for an annual dramatic festival. The building has a roof loggia, and includes several shops.

The exterior, shown flood-lit at night in the adjoining view, is faced with red bricks and has dressings of stone. On the facing page is illustrated the entrance vestibule, looking towards the pay office; the doors from the street are on the right and other double doors, facing them on the left and leading to the grand foyer, appear in the frontispiece to this issue. The walls are of black plate-glass panes, divided by chromium-plated bands; the ceiling, of black polished opalite, carrying specially-designed lighting fittings in aluminium alloy.

LANCS. : DESIGNED BY GEORGE E. TONGE

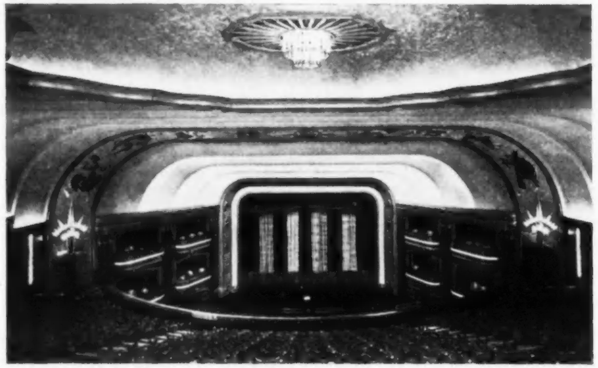


THE GARRICK THEATRE, SOUTHPORT, LANCS. : DESIGNED BY GEORGE E. TONGE

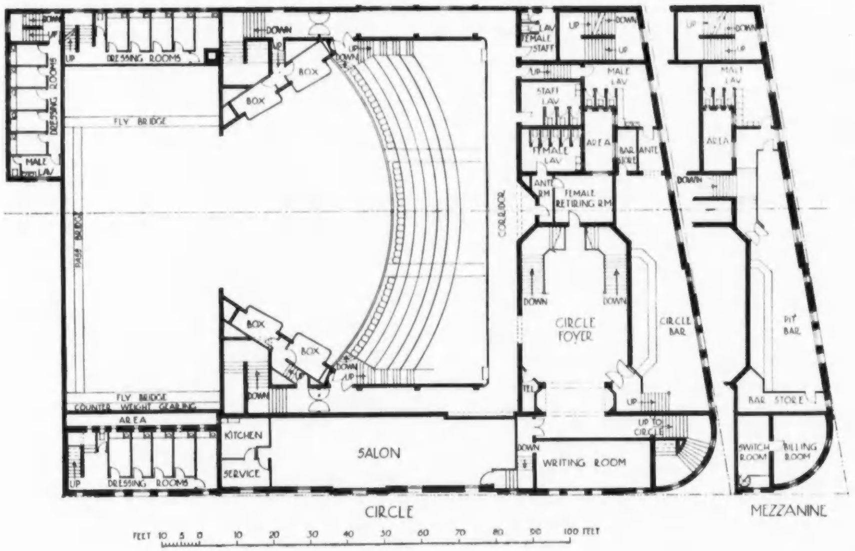
The auditorium is bell-shaped. In the ceiling is a depressed dome, from which spotlights play on the stage. On the following three pages are views of three of the bars :—

COCKTAIL BAR (page 303) : The whole of the stillion is executed in Australian straight-grain walnut, finished with wax polish. The edges of the shelves are picked out in orange cellulose. The fingers of the clock are in stainless steel, cut in the shape of silhouettes of a male and female figure, the numerals being in orange. All fittings, including the sign PRICES, are in stainless steel. The gold ceiling is textured. On the two side walls there is a painted humorous frieze covered by plate glass, with a surrounding band in orange. The walls are stippled and finished in gold. The floor is carried out in sponge rubber.

CIRCLE BAR (page 304) : The stillion is executed in alternate bands of Australian walnut and grey sycamore, with wax polish finish ; dividing these bands are 1 in. red cellulose fillets, while in the centre is a clock with a recess for cash register. The face of this clock is in black cellulose with chromium-plated fingers and red numerals. The semi-circular shelves flanking the clock are black cellulose with red edges. Terminating the stillion are two cupboards in the shape of pylons. Below counter level are storage cupboards carried out in straight-grained walnut with red cellulose strips to cupboard doors. The counter top is in red, with an inlay of black rubber. The counter front is alternate bands of walnut and sycamore, divided again by the red cellulose fillets ; it terminates in a step of stainless steel with black rubber inlaid. The walls are textured in bands of buff and light red ; these are divided by red and gold fillets. The dado is in straight-grained walnut capping and black skirting. The floor is carpeted. The doors are finished in black cellulose. All fittings are in stainless steel.

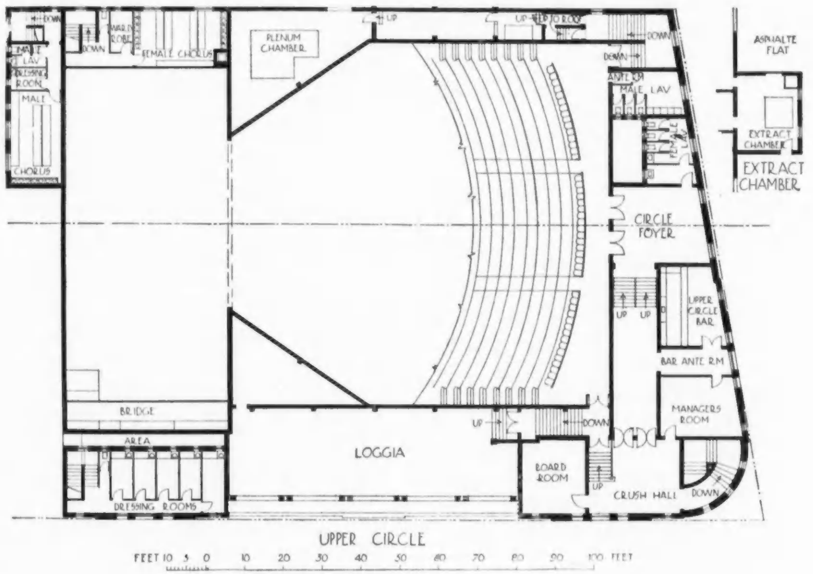


PIT BAR (page 305) : The whole of the stillion is carried out in walnut. In the centre is a green fluted mirror. The shelves are black cellulose with green edges. The counter top is green cellulose with black rubber inlaid. The counter front is built up of black cellulose. One-inch wide chromium-plated bars cover the joins in the plywood. The stainless steel step is inlaid with black rubber. The floor is in green and black rubber. The walls are stippled and finished with gold. The dado is of Australian walnut with green cellulose dado rail. The doors are green cellulose.

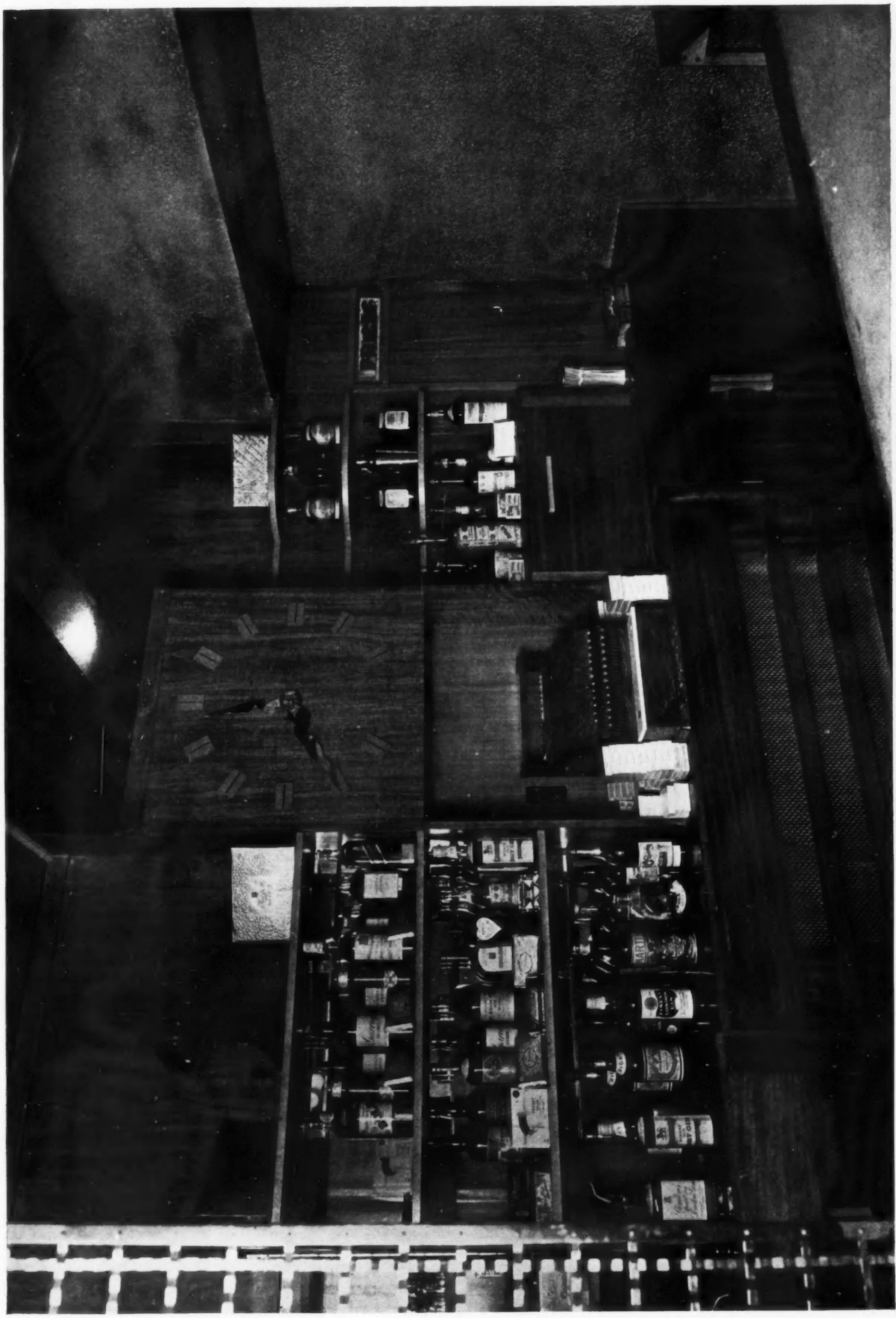

DRESSING ROOMS
FLY BRIDGE
BOX
CORRIDOR
STAFF LAV
FEMALE LAV
AREA
BAR ANTE
FEMALE RETIRING RM
CIRCLE FOYER
CIRCLE BAR
PIT BAR
BAR STORE
SWITCH ROOM
BILLING ROOM
MALE LAV
KITCHEN
SERVICE
SALON
WRITING ROOM
UP TO CIRCLE
COUNTER WEIGHT GEARING
DOWN
UP
FEET 10 5 0 10 20 30 40 50 60 70 80 90 100 FEET

CIRCLE

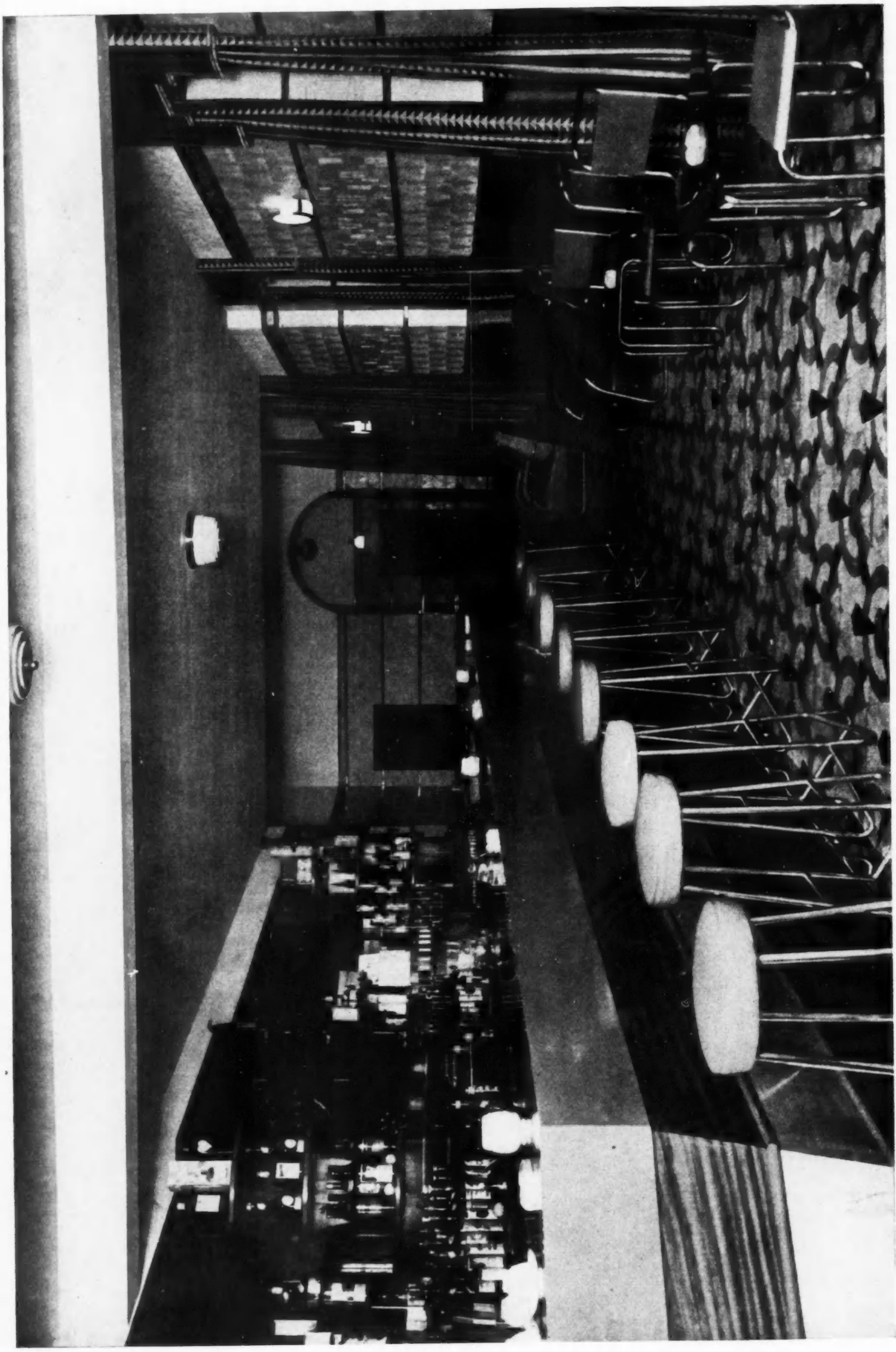
MEZZANINE


PLENUM CHAMBER
WARDROBE
FEMALE CHORUS
DRESSING ROOM
MALE CHORUS
BRIDGE
AREA
DRESSING ROOMS
LOGGIA
BOARD ROOM
CRUSH HALL
MANAGERS ROOM
BAR ANTE RM
UPPER CIRCLE BAR
CIRCLE FOYER
MALE LAV
ASPHALTE FLAT
EXTRACT CHAMBER
UP TO ROOF
DOWN
UP
FEET 10 5 0 10 20 30 40 50 60 70 80 90 100 FEET

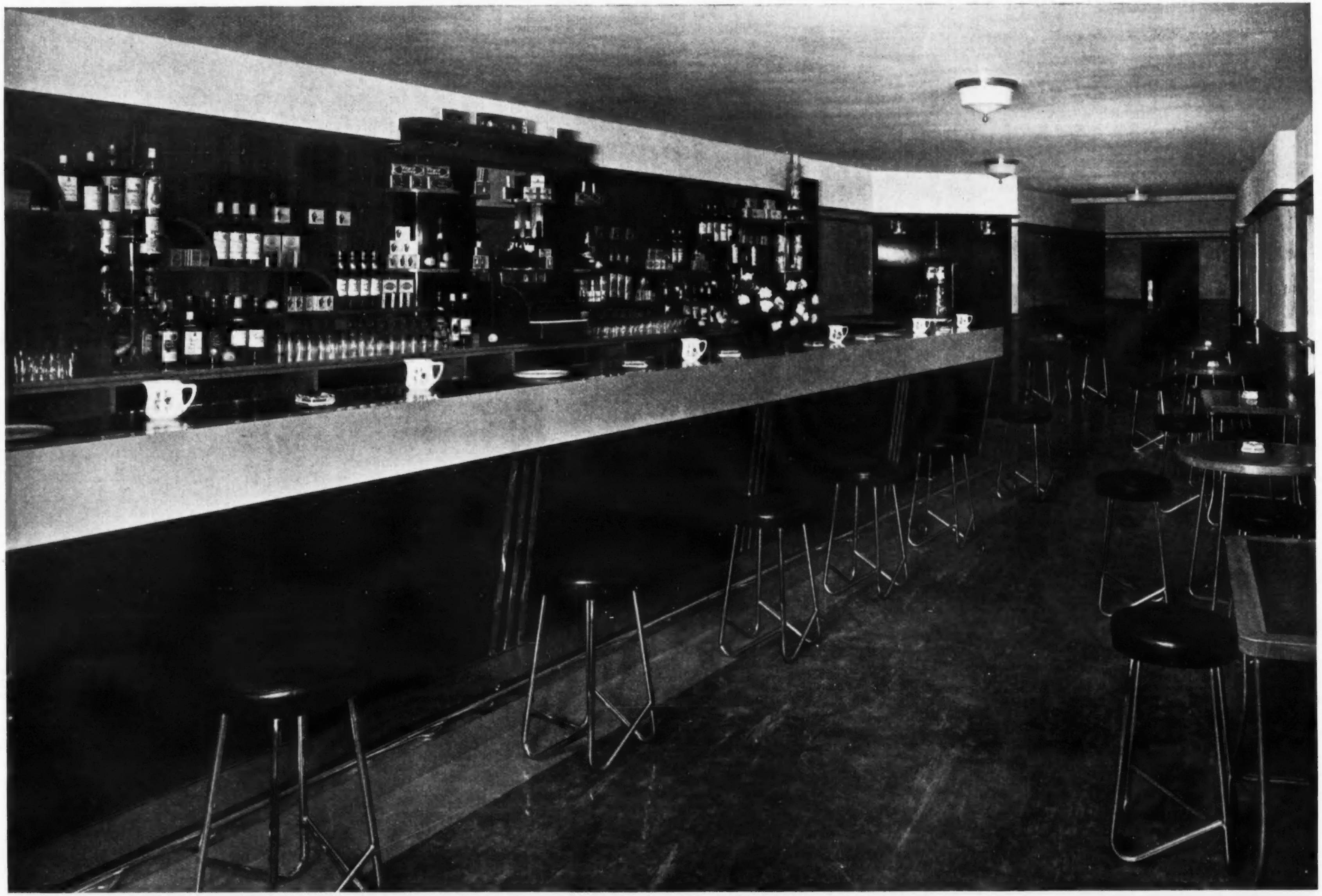
UPPER CIRCLE



The stillion of the cocktail bar off the stalls foyer in the basement.



THE GARRICK THEATRE, SOUTHPORT, LANCS. : DESIGNED BY GEORGE E. TONGE



The circle bar, on the same floor as the circle; and the pit bar, on the mezzanine, immediately under it.

THE SLUMS

By A SLUM-DWELLER

Of the slums—from outside—much has been written, in this JOURNAL and elsewhere. Below we publish something less familiar—a glimpse from inside. The manuscript came to hand with a note explaining that the writer, who sees THE ARCHITECTS' JOURNAL in his local public library, had been struck with Mr. Bossom's proposal, which we supported last week, for rehousing slum-dwellers above covered-in railway tracks. He is so eager for any measure that will relieve the desperate evil he so feelingly describes that he offers to subscribe thereto out of his modest means.

His contribution is printed here because it is well calculated to dislodge the lingering, comfortable wish to believe that the evil is not, after all, so very desperate and urgent. There is no question about it: slum dwellers must *be shifted to better quarters. The particular point in Mr. Bossom's scheme that appeals to our correspondent is, of course, that it does not involve shifting them miles away from their work to some colony vaguely sited in Essex, Hertfordshire or Kent. In all our towns many mean streets back on to a railway line; the potential sites are available, in close proximity. The plan is practical politics, and architects will appreciate its possibilities.*

IN a certain part of South London there is a very short street comprising several houses sub-let as flats, each flat having two very small rooms. The exteriors of the buildings are of a dirty brown colour, the brickwork in places being extremely unsafe for people walking along the pavement. Many of the windows facing the street are without glass and in their places one sees sheets of old newspapers. My family occupied the second floor of one of these flats. I had four brothers and two sisters, representing, together with my mother and father, nine persons living in two rooms.

The rooms were of the average size of the present-day tenement flat, about 12 ft. by 8 ft. The front door from the landing led into what we described as the living room. My parents and my two sisters slept in the bedroom; my brothers and I in the livingroom. Our ages covered a range of seven years.

The floors were of rotten wood; and the walls of plaster, papered half-way up, the rest being painted with a green wash. This wash was besmattered with small red blobs as if a painter had dabbed his brush at random all round the room. These blobs were, in point of fact, evidence of the large number of bugs that had been killed on the walls. We destroyed them by tearing off a piece of newspaper and just pressing it against the wall. While having meals, I used to see them coming out for their morning stroll, and I had to get up from the table and carry out their execution in the manner described. During the hot weather I could not sleep for the number of bugs—and their fellow-hunters, fleas—crawling and jumping over my face and body. Then again there was the noise of the rats running about trying to find food to satisfy their extraordinary appetites. Although we often fumigated both rooms with sulphur candles, this did not eradicate either the rats or the bugs. No matter how hard the floors were scrubbed it was impossible to keep them clean owing to the large number of inhabitants of the flat.

With regard to the sanitary conditions: when we desired to wash we were compelled to go out of the front door and down a flight of steps to a water tap that stood in a corner of the lavatory—the only one in the building. This lavatory was in constant use owing to the large number of people that were housed in the building; it was seldom devoid of odours. The thought of entering this place for water, I am afraid, compelled us to think twice before deciding to wash ourselves. A bath was a luxury one associated with the richer classes. If we decided to have a bath our only method was to fill a large tin hip bath and sluice ourselves down. This was extraordinarily awkward owing to there being only two rooms to our flat. Also, as we were very respectable it was only possible for the male members of the family to carry out this practice when the female members were out, and *vice versa.*

I do not want you to think that I am one of those persons who believed that it is far better to go without a wash to save the trouble and the waste of soap, but you will agree that the circumstances were extremely difficult. When it was possible for us to start work, at the age of fourteen years, and thus be able to augment the wages (which were very little) earned by my father, we were able to move to a slightly better flat in another street.

The improvement in hygiene was only very small but the different conditions helped us to realize that to get on in life one must use a little soap and water. I have heard it said that slum-dwellers are extraordinarily difficult to move from their dwellings. This is entirely wrong. In my opinion, given the opportunity, they would jump at the idea of moving to a cleaner and better flat or house, as long as it is not too far away from work.

Mr. Bossom's idea of building tenements over the railway track, which you have re-published from *The Daily Express* of a week or two ago is, to my mind, the only solution of the slum problem. If the tenements were built, as described by Mr. Bossom, the people removed from the slums and rehoused in the tenements, the slums then demolished and new buildings erected, the nation would be going a long way towards creating better citizens.

I am not a journalist and am therefore unable to include in my writing the little tit-bits that would induce readers to say "The slums *must* go." I am a working man and as such feel it my duty to send you this somewhat scrappy account of my early life.

The slums *must* go, and I, for one, would willingly contribute a small sum out of my weekly wages to help a fund for the demolition of these areas.

THE MENACE OF THE MEAN STREET

By JOHN GLOAG

THE expert in self-deception who is the hero of Mr. H. G. Wells's new novel, *The Bulpington of Blup*, became aware during his adolescence that "there was dirt and disorder, misery, indignity and crime, multitudinous behind all the London frontages, behind all the frontages of his civilization, and his Aunt Lucinda seemed to think he ought to do something about it. But what on earth was he to do about it?" He never troubled to answer that disturbing question: who does? But he came to the conclusion that "on the whole he disliked the poor. He wanted to keep away from them and think about them as little as possible." A comfortable and very common desire, and, when it is acted upon, the sores that every city in this country possesses in shameful abundance can be forgotten.

And we go comfortably to bed with 'flu, most of us, year after year, and the children get measles and whooping-cough with the full approval of their parents, who accept these "childish complaints" as inevitable, things that "children have to get"; and diphtheria has helped to smooth the course of many an interview between an undertaker and his bank manager.

We accept the waste of our time and our money and the danger of an early and humiliating death (for it is humiliating to die from 'flu in a world full of cancer, diabetes, and other major ills); but we don't do anything about it; like Theodore Bulpington, we conclude that we dislike disease as on the whole we dislike the poor, and we avoid contact with them, if we can. So we have our annual bout of 'flu, which is so much worse this year, and as the poor and their squalid setting and disease and its irritating discomforts are under the ban of our deliberate inattention, we never indulge in that disturbing and stimulating practice that the editor of *The Eatanswill Gazette* so wisely encouraged, the combining of information.

If we remember all the mean streets we have ever seen, the slums of Battersea, Deptford, Whitechapel or Clerkenwell, to name only a few areas in the greatest and richest city the world has ever seen; if we know something of the hidden streets and courts of seaports like Birkenhead and Southampton, and of proud maritime cities like Liverpool, Glasgow and Newcastle; and if we follow this dismal exercise in recollection by facing the fact that an enormous number of people are ill at the moment, we may begin to lose our almost Oriental passivity under the afflictions that Allah has seen fit to send.

We still retain the lazy, mediæval habit of describing a complaint or an illness as an inevitable curse, only we call it a normal occurrence, or a seasonal visitation; and instead of crowding into a church and giving our seasonal complaints to everybody else, we brightly determine to carry on our job until the last gasp and the highest temperature, and we crowd into a railway carriage or a motor-bus or coach, and pass on our troubles in the name of business instead of in the name of religion. Only the sanitary inspectors and the medical profession stand between any modern industrial country and the most virulent plagues.

Think of our ports of entry for ailments. Think of those slum areas of squalor; the most promising taking-off places for raiding squadrons of disease that civic carelessness could devise. Think then of these facts: In 1925 influenza killed 13,967 people in this country, which represents only a fraction of the number it temporarily and painfully incapacitated.

This is its yearly toll in deaths since:—

1926	10,357
1927	24,289
1928	8,715
1929	32,519
1930	5,715

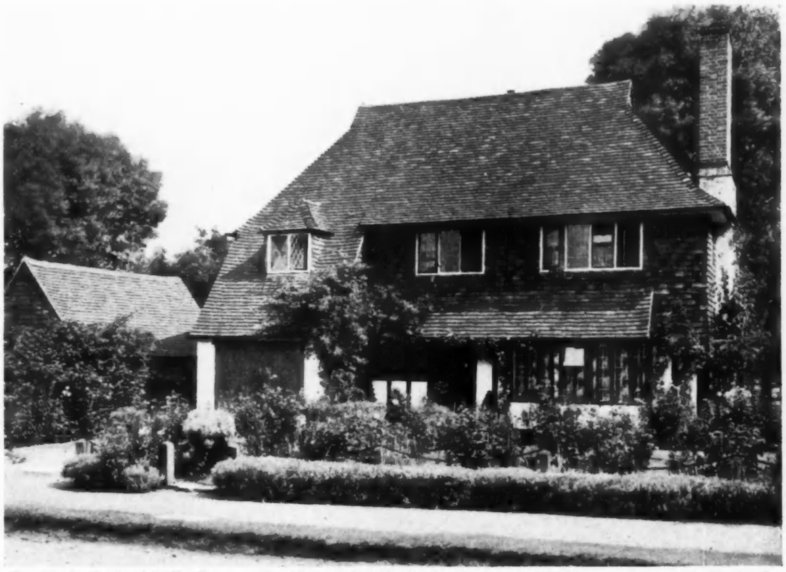
Figures for the last two years are not yet available, and the present year is dark with the promise of a broken record.

That apparently innocuous complaint, measles, slays its thousands yearly: its death record for the last six years is as follows:—

1925	5,849
1926	4,411
1927	4,282
1928	5,307
1929	3,537
1930	4,980

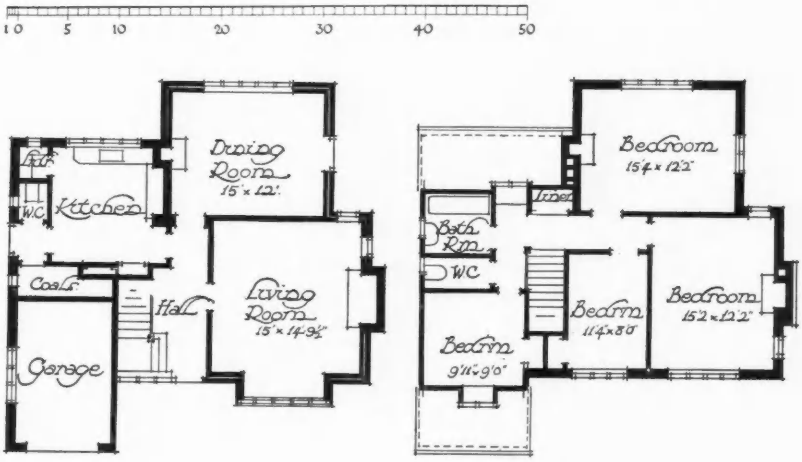
(*Continued on page 309*)

A HOUSE AT ESHER, SURREY

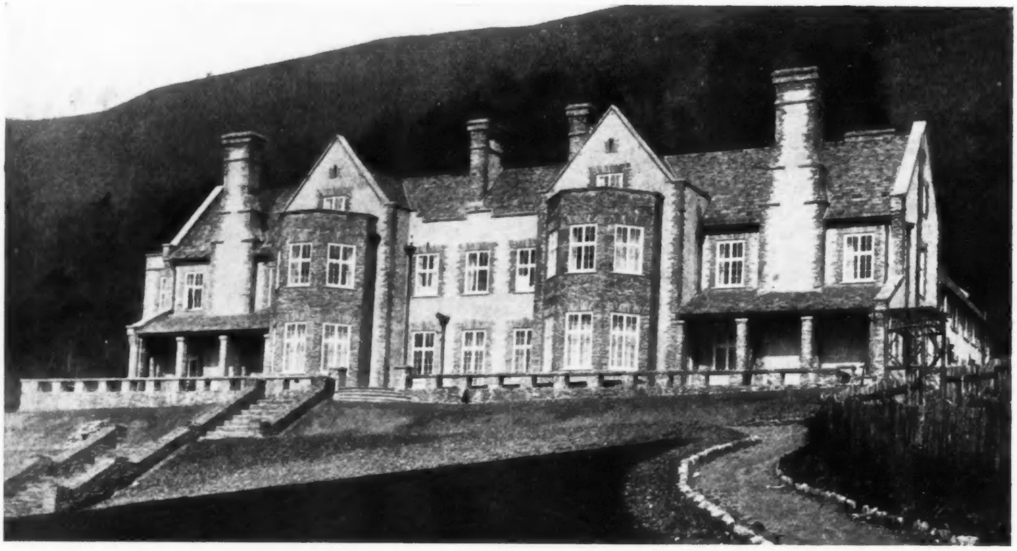


DESIGNED BY IMRIE AND ANGELL

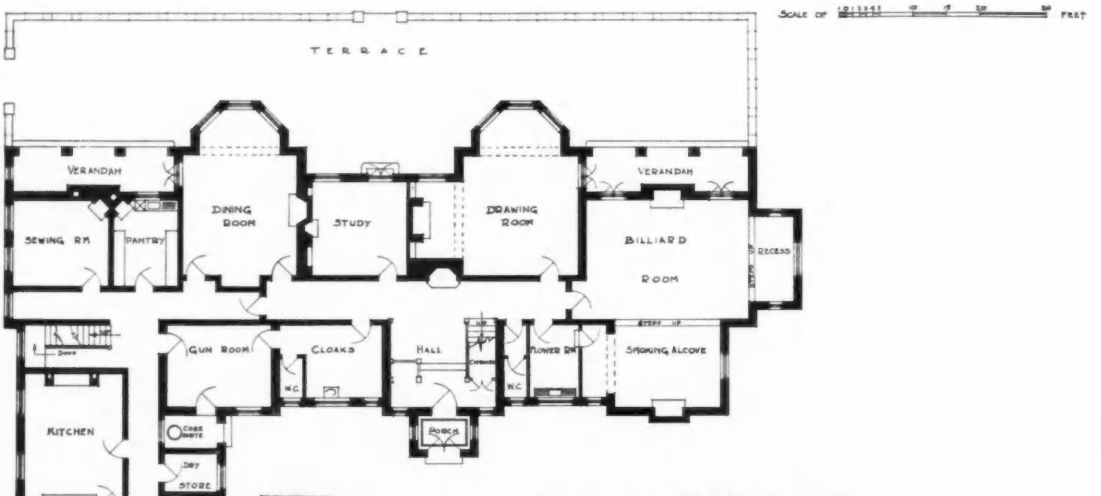
The ground floor external walls of this house in Clive Road, Esher, are 11 ins. hollow, part of the first floor walls being 9 ins. solid, covered with weather tiling. The half-timbering on the front is in adzed oak, and all faced brickwork is whitewashed, except the chimney stacks. The wood window frames are filled in with steel casements and leaded lights. The roof is covered with hand-made sand-faced tiles. The floors in the living room and dining room are in oak, and the hall and porch are paved with quarry tiles.



A STONE HOUSE IN WALES: BY E. B. KIRBY



Tirllanerch, Carrog, near Corwen, Merionethshire, designed by E. B. Kirby (Edmund Kirby and Sons), is constructed mainly of Grinshill stone and rough cast on bricks, with quoins, chimneys, etc., of local slatey shale from some dismantled outbuildings. The roof is covered with multi-coloured Precelly slates. The house stands on a hillside sloping down to the valley of the Dee, and the garden front, facing south, enjoys a view of one of the beautiful reaches of that river.


SCALE OF 10 1 2 3 4 5 10 15 20 30 FEET
TERRACE
VERANDAH
SEWING RM
PANTRY
DINING ROOM
STUDY
DRAWING ROOM
VERANDAH
BILLIARD ROOM
RECESS
STEPS UP
DOWN
GUN ROOM
CLOAKS
W.C.
HALL
UP
FLOWER RM
W.C.
SMOKING ALCOVE
PORCH
KITCHEN
COKE SHUTE
DRY STORE
CUPBOARDS
SLATE SLAB
DAIRY
SCULLERY
COAL BUCKETS
SLATE SLABS
LARDER MILK ETC
LARDER MEAT ETC
WOOD STORE

Whooping cough (which children "have to get") has an equally grim story :—

1925	7,795
1926	4,624
1927	4,531
1928	4,048
1929	7,233
1930	2,665

People die of diphtheria at the rate of over 3,000 a year ; for the last three recorded years diphtheria fatalities have been increasing, and in 1930 they stood at 3,957.

We shall never be without this needless pain so long as our cities are without plan. As Mr. Arthur Harrison pointed out in our New Year issue : "Plans for slum clearance are of urgent national importance, and the Building Industry is now in a position, possessing a Permanent Council, to lay down a policy and prepare a plan which will include slum clearance and rehousing as an important factor."

No city can have health and slums. Trams, buses and tubes distribute the ills that incubate in such areas ; but as a nation we shall doubtless continue to call in doctors to cure what architects could in time prevent.

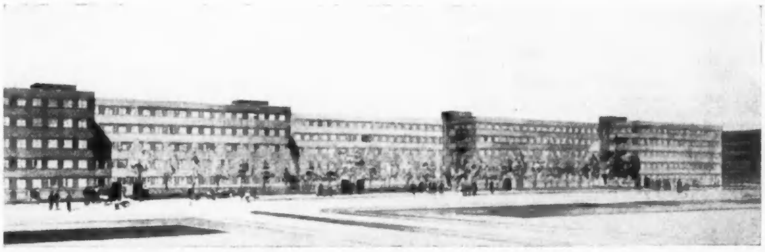
A FEW FACTS ABOUT SLUMS

The current issue of *The Architectural Review*, in addition to its usual features, devotes several pages to a survey of the nature of the problems that the town planners of London have to face. It gives a list of seventy-eight societies, companies and Government departments which, in an official or unofficial capacity, are intimately connected with the town-planning of London.

The Editor, in an article entitled "A London Planning Board," points out that the slump in the North of England and South Wales has driven thousands of people and several industries to London, which is fast becoming the industrial as well as the administrative centre of England.

Mr. Alwyn Dent outlines the method of dealing with the congestion in Central London ; and Miss E. Denby gives a concrete example of how to deal with the terrible slums in Kensington. By means of maps it is shown that the centre of London is overpopulated, unhealthy and dotted about by many unnecessary factories.

Below are printed extracts from the articles :—



A suggested elevation, indicating the type of dwelling which might replace the existing tenement houses. Architect : James Burford. Prepared for the London Society and the R.I.B.A. Zoning Conference. [From THE ARCHITECTURAL REVIEW.

A central nucleus, if such were possible, consisting merely of administrative quarters, business premises and amusement centres, is not a city at all, but a monstrosity. What gives interest to London is the diversity of character of its quarters without extreme sectionalization. It is necessary to separate what is essentially *London* and what is, in a sense, parasitic growth. The process of *urbanization* therefore requires primarily the removal of obsolescent industrial areas and their concomitant slums from the central urban district where they have too long continued to function as a legacy of a past industrial confusion.

In Southwark it has been found that at least 36 factories and workshops, employing about 5,700 workers, have been established since the war ; and in Lambeth 35 factories with about 3,150 workers. This is a development which should never have been allowed (although many of these are small local workshops, etc.).

To the man in the street the "Royal Borough of Kensington" calls up a picture of prosperous citizens, solid houses, comfortable homes. But this is only half the picture. Another and equally real Kensington is to be found north of the Holland Park Avenue, housing a population of 93,362 persons against 81,438 in the southern half.

Kensington contains some of the densest areas in London, with 10,000 people in a district the size of Lord's cricket ground.

There are few "black spots" in the sense found in Shoreditch, but there is, in Kensington, a housing problem which is one of the most difficult in the metropolis—the problem of overcrowding—a warren of people—eight families in eight rooms, 30 people in a ten-roomed house—houses built for one and now inhabited by many families without structural alteration to meet the changed and multiplied demands . . . Few families can retain their integrity when forced, by lack of alternative accommodation, to live, eat and sleep in one room only. Yet 2,412 families of two to nine persons do so in the Royal Borough.

There are 13,000 inhabited basements in Kensington and in over 400 of them (housing 5,600 persons) the ceiling is at or under the level of the street.

In a large part of North Kensington it is rare for a family to have a living room which has not also to be used for sleeping. And the results of this density of occupation are reflected in the health figures. Here are a few for 1931 :—

	North Kensington	South Kensington
Infantile death rate per 1,000	86	44
Scarlet fever notifications	299	86
Diphtheria notifications	172	50
Tuberculosis deaths ..	105	43
Puerperal fever and pyrexia	51	18
Pneumonia	213	40
Acute rheumatism (under age 16)	43	3

Following are three telling extracts from the articles on the slum problem that have appeared in the newspapers :

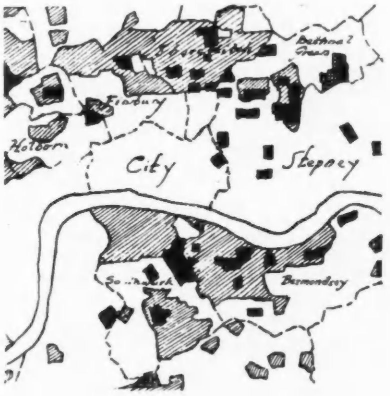
I have seen model cow-sheds that are palaces compared with the slums of Liverpool.

Why do people live in slums? For the commonplace reason that there is nowhere else for them to live. One of the deepest tragedies of the slums is that decent folk earning fair wages are compelled to dwell crowded together in one room, or two rooms, in abominable houses, because the proper accommodation for which they are able and willing to pay does not exist.

In Dundee there are still 6,347 one-room and 22,252 two-room houses, or 69.9 per cent. of the total houses in the city, and these one- and two-roomed houses are occupied by 56.2 per cent. of the population.

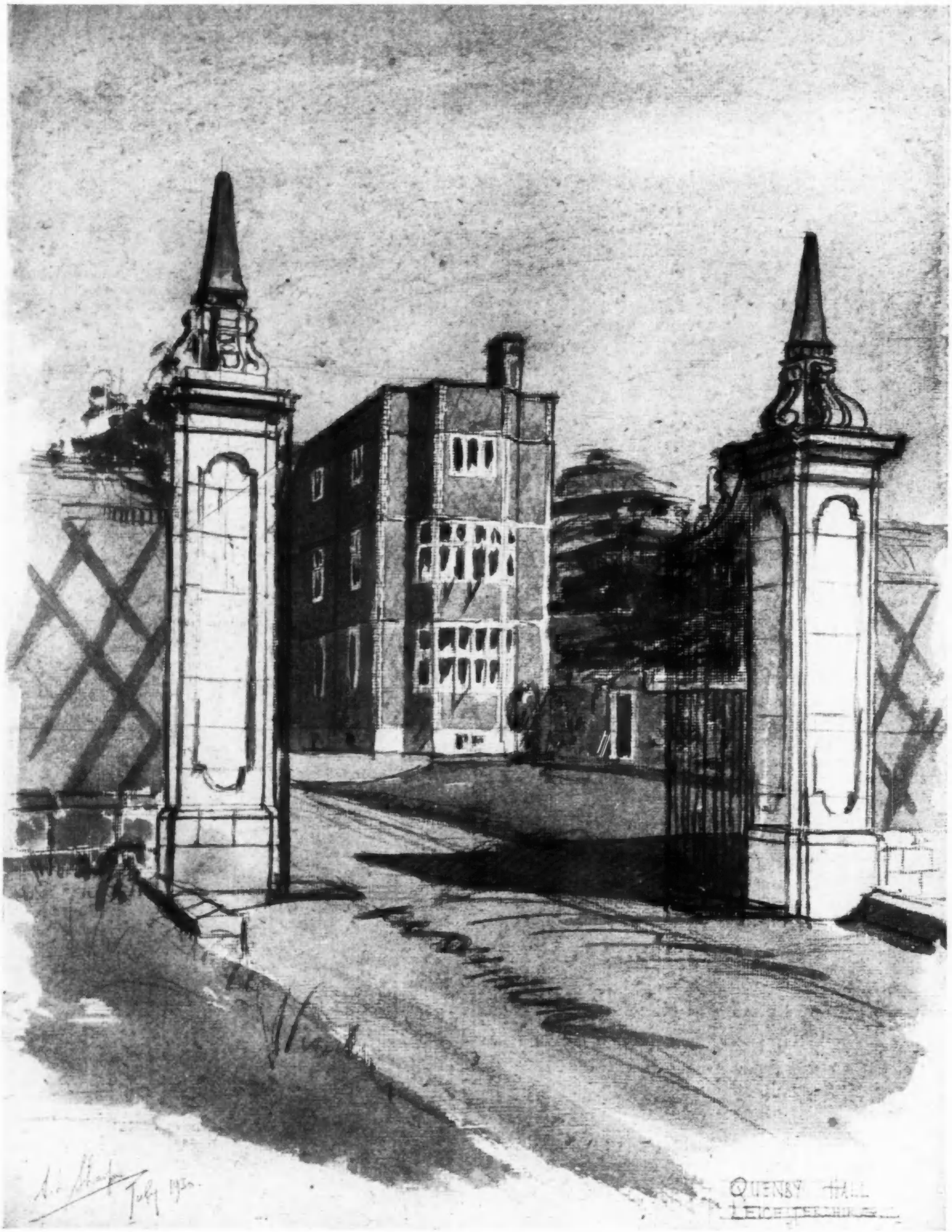
Looking at the one-roomed houses, we find that 1,176 of them are inhabited by more than three persons.

Four of these one-roomed houses are inhabited by 10, 11, 12 and 14 persons ; eight have 9 occupants ; 30 have families of 8 in them ; no fewer than 98 are occupied by 7 people ; 175 one-rooms are tenanted by families of 6 ; and in 302 cases families of 5 live in a single room.



Part of a plan, reproduced from the current issue of "The Architectural Review," showing unhealthy areas in London. The areas shown in black are those condemned by the Medical Officer of Health and where reconstruction schemes are necessary. Cross-hatched : areas not represented as unhealthy, but may have to be dealt with by reconstruction schemes. Hatched : areas containing a large proportion of seriously defective houses, and others in fair sanitary condition, but falling below standard.

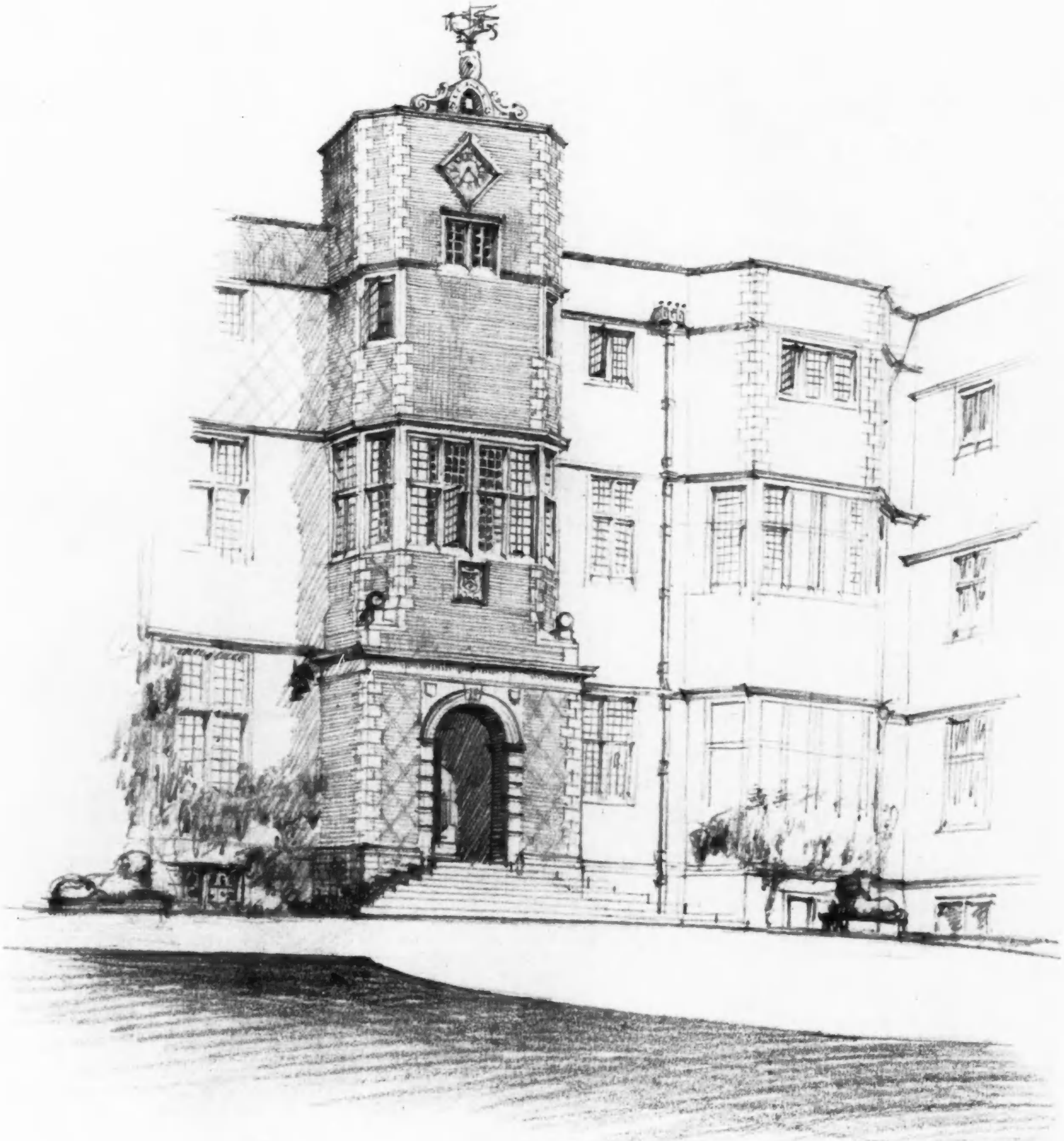
THE SKETCH


July 1930
QUENBY HALL
LEICESTERSHIRE

TWO VIEWS OF QUENBY HALL, LEICS.

Crayon and Wash
($11\frac{1}{4}'' \times 15''$)

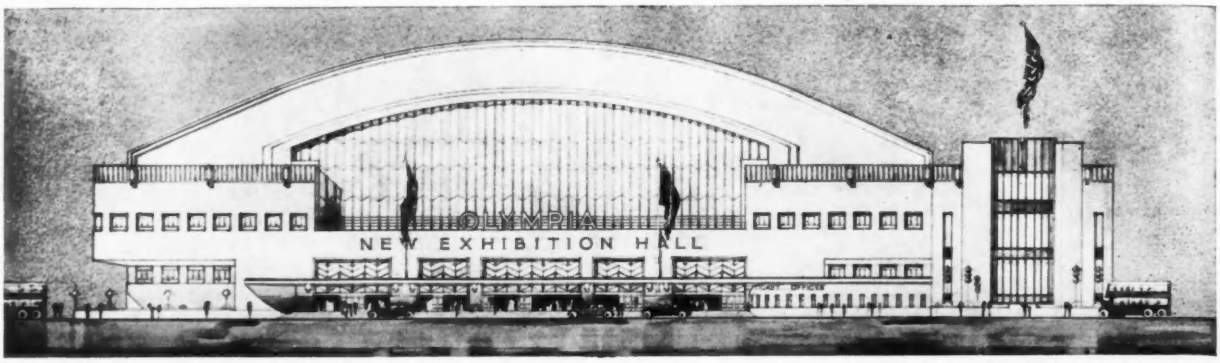
CLUB: SIXTY-SECOND SESSION



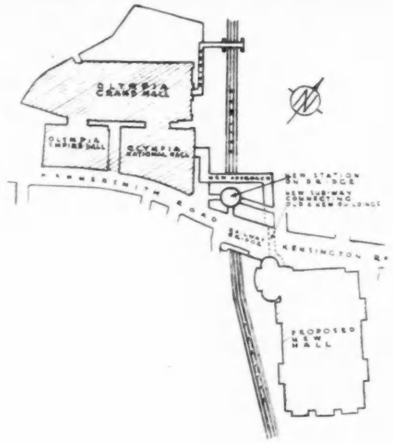
Pencil
(10½″ × 13½″)

DRAWN BY
A. L. SHARPE

PROPOSED EXTENSION TO OLYMPIA : BY JOSEPH EMBERTON



In our last two issues we stressed the urgent need for rebuilding the shed at Castle Bromwich in which the Birmingham section of the British Industries Fair is inadequately housed. At the London end the need for more space is also felt. Happily, Olympia is to be enlarged; and, more happily still, in setting out to double the present accommodation, the proprietors of that building are wise enough to realize the importance of a greater area of unencumbered floor space and more capacious stands. Demolition is in progress on the new site indicated on the block plan herewith. Addison Road station is to be concentrated on the Hammersmith Road Bridge. The design of the new hall has been entrusted to Joseph Emberton, architect for the last Olympia extension—the Empire Hall. Further illustrations are reproduced overleaf, on page 313.



IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Whitehall Rebuilding Scheme

IT is now regarded as almost certain in political circles that the Whitehall rebuilding scheme will shortly be revived by the Government, although on a far more modest scale than that envisaged some time ago by Mr. Lansbury, when he was First Commissioner of Works in the Labour Government. If the National Government do decide to put the scheme into operation, there will be no suggestion this time of altering the building line, and hence legislation will not be necessary to put the scheme into operation.

The Government take the view that to spend money on a productive scheme of this sort would be in the national interest, and would help the unemployed. It has been frequently stated that the cost of building is now lower than it is likely to be for some time to come, and the Government feel that now is the opportunity to carry out a scheme which has long been needed. It may be remembered that the plan for new offices in Whitehall was first raised before the war, when an Act was passed which prescribed that the building line should be 168 ft. from the Victoria Embankment. The proposal then was that a building with 360,000 superficial feet of office space should be erected on a site of 86,500 square feet. But, owing to the war, the scheme was held up, although plans had been prepared for the development of the Montagu House site. It was not until two years ago that the scheme was revived. In 1931 Mr. Lansbury, as the First Commissioner of Works, moved the second reading of the Public Office (Sites) Amendment Bill. This measure, which authorized the Government to advance the building line on the Embankment side to the New Scotland Yard level, was, however, rejected by the Select Committee which considered it, and no further progress was made.

The scheme of that particular Bill embodied proposals that the new building should have 741,000 superficial feet of floor space covering a site of 170,000 square feet, the height from the ground to the wall head being 107 ft. The staffs which it was proposed to accommodate in the new building were those of the Air Ministry, the Ministry of Labour, the Ministry of Transport, the Board of Trade, the Ministry of Agriculture and Fisheries, the Cabinet Offices, the Dominions Office, and the Stationery Office. Accommodation was to be provided in all for 7,500 persons, and it was stated that a considerable saving would be effected by concentrating staffs that had previously been scattered all over London. The total cost was estimated at £2,355,000, involving, on a 5 per cent. basis, an annual charge of £117,750. The saving in rents on other offices which could be dispensed with would be £158,000, making a net annual saving of £40,250. The approximate value of the land would be £1,250,000.

It is probable that any scheme which the National Government may put into operation will be of a rather more modest nature.

Housing Loans

Mr. Hutchison asked the Minister of Health how many applications he had received for a housing loan from local district councils: how many of such applications had been sanctioned and how many refused, and, in the latter case, for what reasons; what steps were being taken by his department to ensure that houses were built in the districts to which loans were being refused; and how the Ministry assured itself in these cases that private enterprise would do all that was necessary.

Sir E. Hilton Young said he regretted that all the particulars sought were not available. The total amount of loans sanctioned for housing purposes during the last twelve months was £19,312,110. On the general issue raised, a statement was recently issued.

Mediæval Paintings

Mr. Burnett asked the First Commissioner of Works whether any remains of the mediæval wall paintings still existed under the Victorian decorations of Westminster crypt (St. Mary's, Undercroft).

Mr. Ormesby-Gore replied that there was nothing in the records at the Office of Works which suggested that any mediæval paintings remained under the present decoration, and the matter could only be cleared up by the removal of the existing paintings.

SOCIETIES AND INSTITUTIONS

HANTS. AND I.O.W. ARCHITECTS' DINNER

Mr. Ingalton Sanders, F.R.I.B.A., speaking at the annual dinner of the Hampshire and Isle of Wight Architectural Association, of which he is the president, said:

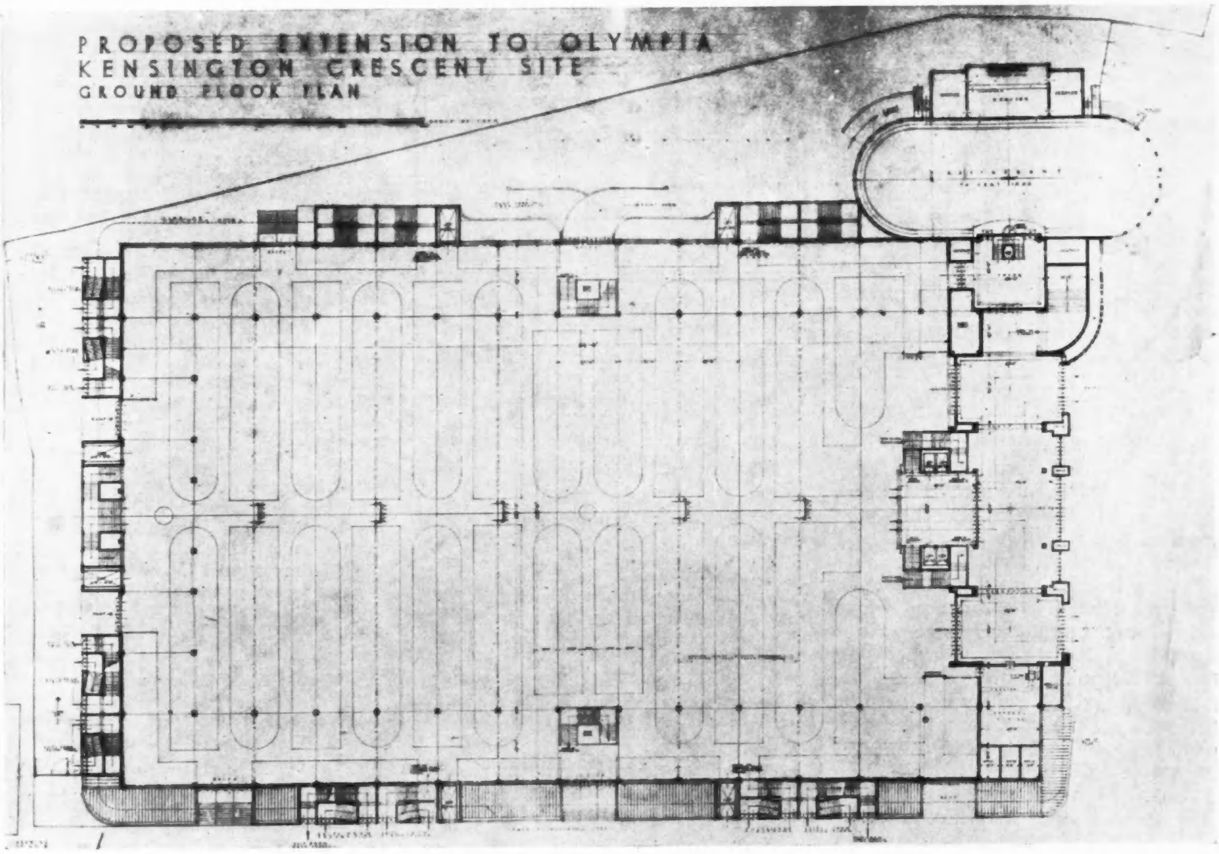
Architects are anxious to co-operate with the municipal authorities throughout the country to forward the town-planning schemes, and their success depends upon the co-operation of the authorities, the architects and the Building Industry generally.

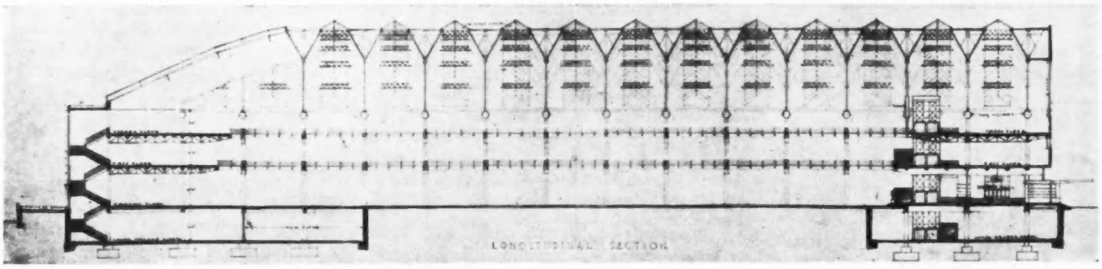
GLOS. ARCHITECTURAL ASSOCIATION

The annual general meeting of the Gloucestershire Architectural Association was held at the Connaught Rooms, Gloucester, on Wednesday, February 15. The President, Mr. H. T. Rainger, A.R.I.B.A., occupied the chair. The Honorary Secretary and Honorary Treasurer had presented their reports for the past year, the following officers and Members of Council were elected for the ensuing session :—

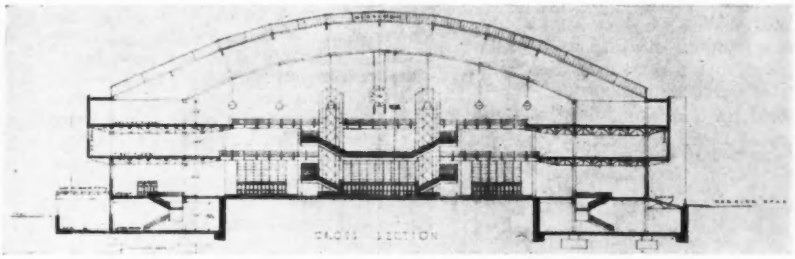
President, Mr. C. W. Yates, A.R.I.B.A., F.S.I.; vice-president and honorary secretary: Mr. Harold F. Trew, F.R.I.B.A., A.M.T.P.I.; honorary assistant secretaries: Messrs. C. M. Cameron Johnson, A.R.I.B.A. and W. J. Rogers, A.R.I.B.A.;

PROPOSED EXTENSION TO OLYMPIA: BY JOSEPH EMBERTON





The ground plan, longitudinal section, and cross section, looking towards the entrance, of the new building. The entire scheme to double the present accommodation of the exhibition premises is estimated to cost £1,500,000. The site has an area of 7¼ acres, with frontages of 450 feet to Hammersmith Road and 600 feet to Warwick Road.



honorary treasurer: Mr. D. N. London, L.R.I.B.A.; honorary librarian: Mr. F. C. Ravenhill, L.R.I.B.A.; honorary auditor: Mr. H. Ellis Moore, L.R.I.B.A. Members of Council: Messrs. H. Stratton Davis, F.S.A., F.R.I.B.A.; Thomas Falconer, F.R.I.B.A., A. Linton Iredale, L.R.I.B.A., H. T. Rainger, A.R.I.B.A., W. J. Rogers, A.R.I.B.A., F. C. Ravenhill, L.R.I.B.A. and H. Ellis Moore, L.R.I.B.A.

The following were elected to serve on the Council of the Wessex Society of Architects in addition to the president and honorary secretary: Messrs. Stratton Davis, Falconer and Iredale.

The meeting was followed by a lecture on the Sydney Harbour Bridge, at which members of the Gloucestershire Engineering Society and other guests were present.

Mr. H. Shirley Smith, A.M.I.C.E., of the firm of Messrs. Dorman Long & Co., Ltd., the constructors of the bridge, traced the history of the scheme for a bridge over the harbour. Illustrations of various designs submitted were shown, the estimates for which varied from nine million to four million pounds, while the accepted contract was for four and a quarter million pounds.

BIRMINGHAM ARCHITECTS AT DINNER

The annual dinner of the Birmingham Architectural Association, held at the Queen's Hotel, Birmingham, on February 17, was presided over by Mr. John B. Surman, F.R.I.B.A. (President).

Alderman M. L. Lanchester, replying

to the toast of "The City," proposed by Mr. Surman, said :

There are some old buildings in Birmingham the beauty of which I greatly admire, but there are some modern buildings at which one look is sufficient for a lifetime. Architects have done a great deal, but there is one respect in which they have failed us in the past generation, namely, the building of workmen's houses, which are ugly and unsuitable.

Sir Raymond Unwin, responding to the toast of "The R.I.B.A.," proposed by the Master of Sempill, said he believed the time was ripe for the solution of the slum problem and for the removal of depressing housing conditions under which many people had now to live.

WELSH STUDENTS' VISIT

A party of about 35 students of the Welsh School of Architecture, accompanied by Messrs. A. C. MacLean, Lewis John and W. S. Purchon, the Head of the School, visited Bristol on Thursday, February 16.

The party was met by Mr. G. D. Gordon Hake, Head of the Bristol School of Architecture, and other members of the staff and students of that school, and conducted round a number of Bristol buildings.

After lunch the students of the two schools played a keenly-contested Rugby match, which resulted in a win for Bristol by 5 points to 3.

The Bristol School of Architecture was then visited and an exhibition of the work of the Bristol students was inspected.

The Cardiff party was entertained to lunch and tea by the Bristol Students' Club.

RECENT WILLS

Mrs. E. B. Bedford, Leeds, widow of Mr. James E. Bedford, Lord Mayor of Leeds, 1914–15, left £13,570 (net personalty, £13,182). After making several bequests she has left the residue of her property to the Leeds and West Yorkshire Architectural Society for founding one or more travelling studentships to be known as the "J. E. Bedford Studentships."

Mr. William Thornton, architect and surveyor, of Dewsbury, left £7,728 (net personalty £5,728).

TRADE NOTES

The Bective Electrical Co., Ltd., in moving to larger premises, has opened new and extensive showrooms at 36 Davies Street, W.1, next to Claridge's Hotel. The ground-floor showroom is notable for some very effective examples of modern concealed lighting. Other exhibits include a selection of period fittings. The basement is devoted mainly to electrical equipment for kitchens and bathrooms, and a Tudor room with a novel method of picture lighting. No prizes are offered for discovering the source of light, but few will be able to solve the problem easily.

The firm offers its services for every kind of electrical work and extends a welcome to all architects who wish to visit the showrooms.

Increased demand for the JOURNAL has resulted in the issues for February 1 and February 8 going out of print. If any readers who have copies of these numbers which they no longer require will return them to 9, Queen Anne's Gate, Westminster, S.W.1, the Publishers will be pleased to pay full price for such returned copies.

*

Messrs. Chance Bros., and Co., Ltd., have moved their offices to larger premises at Clutha House, Princes Street, Westminster, S.W.1. Telephone Nos. : Whitehall 1846 and 5768. In the new offices there is an extensive showroom, in which the firm's products are exhibited.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :—

Dryad Showrooms, 22 Bloomsbury, W.C.1 (pages 295–297 and supplement). General contractors, Bovis, Ltd. Sub-contractors : Samuel Jones & Co., wood veneer paper ; Cellulin Flooring Co., Ruboleum for floor and top of counter ; Clarke & Co., heating and lighting ; N. F. Ramsay, swing door handles ; Dryad Metal Works, drawer pulls ; Mander Bros., paint ; Eric Munday, stainless steel letters. Electrical fittings : Clarke & Co., columns ; Troughton and Young, Ltd., wall brackets ; McGeoch & Co., pendants.

Garrick Theatre, Southport (pages 300–305) General contractor, Tomkinson and Sons, Ltd., who were also responsible for the electric lighting. Sub-contractors : Banister, Walton & Co., Ltd., structural steelwork : Trussed Concrete Steel Co., Ltd., suspended floorings and balcony ; Pearson Bros. and Campbell, Ltd., Reinforced Concrete Engineers, artificial stonework ; Carrara Marble Co. (Liverpool), Ltd., interior and exterior marble work ; Clark and Fenn, Ltd., fibrous plaster ; Clark and Vigilant Sprinklers, Ltd., sprinklers ; Decorators (Liverpool), Ltd., plumbing and decorating ; Grayson Rollo and Clover Docks, Ltd., bar fittings ; Hughes and Ellison, marquise ; Lift and Engineering, Ltd., stage gearing ; Wm. Mason and Son, Ltd., main entrance doors ; Merryweather and Sons, Ltd., fireproof curtain ; Quiggin Bros., Ltd., iron mongery and handrails ; Arthur Roberts, heating and ventilating ; Sturtevant Engineering Co., Ltd., vacuum cleaner ; J. S. Taylor, carpets, seating and rubber flooring ; Williams and Williams, Ltd., metal windows and stage lantern lights ; Strand Electric Co., Ltd., stage lighting ; Shaw's Glazed Brick Co., Ltd., terra-cotta ; Dodd and Oulton, Ltd., sanitary goods ; Automatic Telephone Manufacturing Co., Ltd., automatic telephones ; General Electric Co., Ltd., electric light fittings, trough lighting, floodlighting, etc. ; Comyn Ching & Co. (London), Ltd., pay boxes ; John Stones, Ltd., steel roller shutter ; G. A. Kiddie, glass work : Honeywill and Stein, Ltd., acoustic plaster ; L. T. A. Sign Display Co., Ltd., illuminated lettering to verandah ; G. T. Rackstraws, furniture; John Burroughs & Co., "Pel" steel furniture.

House at Carrog, nr. Corwen, Merionethshire (page 308). General contractors, Henry Price and Son, who were also responsible for the excavation, foundations, wood block flooring, plaster and joinery. Subcontractors : Callender's Cable and Construction Co., Ltd., dampcourses ; Val de Travers Asphalte Paving Co., Ltd., asphalt ; Young, Austen and Young, central heating ; Economic Electric Co., electric wiring ; Waring and Gillow, electric light fixtures ; R. W. Haughton, plumbing ; Quiggin Bros., Ltd., door furniture ; Robert Weare & Co., mantels ; Craven, Dunhill & Co., tiling ; "Esse" stoves.

House at Esher (page 307). General contractors : Cummins, Ltd.

In the list of contractors for St. Lawrence's Church, Feltham, published in our last issue, the work of Silexine Decorators Ltd. was inadvertently described as internal plastering. The material marketed by this firm and used in this contract is Silexine Plastic Stone, which is applied by painters and not by plasterers.

Announcements

In the letterpress accompanying the illustrations of the Austrian State Régie's Cigarette Factory at Linz, by Peter Behrens and Alexander Popp, in our last issue, the building was described as "expensive." This was a misprint for "extensive," and conveyed a meaning exactly opposite to that intended. The whole reason for selecting this building for illustration was to show what can be done by employing architects capable of designing a seemly structure on simple and economical lines.

The G. W. Lewis Tileries wish to correct a mis-statement which was made in their advertisement in THE ARCHITECTS' JOURNAL of January 25. In this advertisement it was inadvertently stated that all the roofs of the Cefn-coed Mental Hospital were covered with Rosemary tiles, but, in point of fact, while Rosemary tiles were used on a portion of the buildings, Messrs. J. W. Greaves and Son, of Portmadoc, supplied half a million slates for this contract, and in fairness to them, the G. W. Lewis Tileries desire to make this correction.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Messrs. C. J. Fitzpatrick & Co. are to build a factory in the vicinity of Western Avenue, ACTON.

Messrs. Walter Hearn and Chuter are to erect 30 buildings, each containing two flats in four blocks, and one block, containing 18 buildings, on an estate in Fairlawn Park, ACTON.

Messrs. K. W. Matherson and R. O. Sutherland are to erect blocks of flats, seven stories high, fronting The Vale, Oldfields Estate, ACTON.

The ACTON Corporation is acquiring land in Canada Road, for the erection of blocks of flats two stories in height, and in Gunnersbury Lane for blocks of flats two, three and four stories in height.

The ACTON Corporation Libraries Committee recommends proceeding with the scheme for the erection of a public library in Oldham Terrace.

The L.C.C. is to erect another block of tenements on the Teale Street area, BETHNAL GREEN, at a cost of £25,388.

The Surrey Education Committee proposes to erect a junior school for 384 pupils on the central school site at CHEAM.

The Surrey Education Committee is to purchase a site on the Nonsuch Park estate, CUDDINGTON, for the erection of a secondary school for girls.

The L.C.C. is to clear and re-develop the Speedwell Street area, DEPTFORD, at a cost of £77,000.

The Surrey Education Committee is to obtain a site near Valley Road, KENLEY, for the erection of an elementary school.

The Woodstock Estate, LEE, is to be developed, and about 242 houses are to be built.

Plans passed by the LEWISHAM B.C.: Streets and houses, Brockley Hall Estate, for Mr. H. Macintosh; one-story shops, 45-7, Brockley Rise; additions, St. John's Hospital, Morden Hill, for Messrs. H. Groves and Son; two houses, Cambridge Road, for Messrs. Thos. Allen (Lee), Ltd.; one-story shops, 37-9, Catford Hill, for Mr. S. F. Prior.

The Derrick Construction Co., Ltd., of 99 Ravensbourne Park, Catford, S.E.6, are to develop an estate adjoining Cockmannings Road, ST. MARY CRAY.

SOUTHERN COUNTIES

The Kent C.C. has prepared a revised scheme for the re-modelling of the DOVER Institution, at an estimated cost of £18,000.

Plans passed at GRAVESEND: Additions, rear "Bat and Ball"; sports pavilion, Wrotham Road, for the Gravesend Cricket Club; alterations, "City of London" public-house, The Terrace, for Messrs. Watney, Combe, Reid & Co., Ltd.; conversion into two flats, 35 Darnley Road, for Mr. Geo. Smith.

In connection with the provision of new office accommodation, the KENT C.C. recommends the erection of further buildings on the Sessions House grounds, at a total cost of £50,000.

Messrs. R. Lawrence and Son, of 16 Heath Grove, Barming Heath, Maidstone, are developing an estate in Farleigh Lane, MAIDSTONE.

Plans passed at PORTSMOUTH: Four houses, Military Road, Hilsea, for Mr. F. D. McLaren; conversion to form billiard hall, London Road, for Messrs. A. and E. Sprigings, Ltd.; warehouse and stables, Somers Road, for Portsea Island Mutual Co-operative Society, Ltd.; alterations and additions to shop, 251 Lake Road, for Messrs. Collett and Collett; additions to school, Surrey Street, for the trustees of Christ Church Day School; reconstruction of workshop, The Avenue, King Street, for Messrs. T. Errington and Sons; 36 houses, Highbury Avenue, for Messrs. G. and W. Mitchell; two houses, Carshalton Avenue, for Mr. E. W. Payne; four houses, Firgrove Crescent, for Mr. F. D. McLaren; additions to works department, 16-18 Flathouse Road, for Portsea Island Mutual Co-operative Society, Ltd.; 13 houses, Westwood Road, for Mr. R. J. Winnicott; two houses, Meredith Road, for Mr. R. J. Winnicott; four houses, Military Road, Hilsea, for Mr. F. D. McLaren; three houses, Carmarthen Avenue, for Mr. H. R. Horsey; 12 houses, Northern Parade, for Mr. E. A. Wright; new street, Second Avenue, Farlington, for City and Suburban Builders; 13 houses, Mayfield Road, for Messrs. Tanner Bros.; new ward, Royal Portsmouth Hospital, for the Governors; hotel premises, Havant Road, Farlington, for Messrs. Brickwoods and Co., Ltd.; public house, Northern Parade, for Portsmouth and Brighton United Breweries; additions to warehouse, St. George's Square, for Messrs. Pink and Son, Ltd.; alterations and additions, 38 St. George's Square, for Portsmouth Rotary Club; conversion into flats, 3 South Parade, for Mr. H. Wells.

SOUTH-WESTERN COUNTIES

Plans passed by the PAIGNTON U.D.C.: Alterations and additions, Tembani Hotel and Monte Rosa, Marine Drive, for Mr. C. H. Wield; shop, Torquay Road, for Mr. J. L. Skidmore; hotel, Broadsands, for Staverton Builders, Ltd.; bakery, Palace Avenue, for Health Bakery, Ltd.

Plans passed at TRURO: Two houses, The Crescent, for Mr. Strout: hotel, Tregolls Estate, for Mr. Wheatly.

MIDLAND COUNTIES

Plans passed by the NORTHAMPTON Corporation: 10 houses, New Duston Road, for Mr. Stanford; extensions, leather works, Bedford Road, for Messrs. Frecknall, Barnard and Scott, Ltd.; church hall, off High Street, for Rector of Weston Favell; temporary classrooms, Kingsley School, for Education Committee; reconstruction, 39 Abingdon Street, for Mr. A. Cleaver; two houses, Greenfield Road, for Mr. A. Atkins; eight houses, Trinity Avenue, for Messrs. Chowns, Ltd.; factory extensions, St. Andrews Road, for Messrs. W. J. Markie & Co.; alterations, Bull Hotel, Regent Square, and Ram Hotel, Sheep Street, for Messrs. P. Phipps & Co., Ltd.; two houses, Rushmere Road, for Messrs. Stafford and Agutter; conveniences, Dover Hall, St. James Park Road, for Messrs. Dover, Ltd.; four shops and houses, Southampton Road, for Messrs. T. Wilson and Son.

Plans passed by the OXFORD Corporation: 10 garages, Jackdaw Lane, for Mr. Jarvis; bell-cote, St. Albans Church, Cowley, for Churchwardens; extension, Botley Road, for Co-operative Society; shop, Old Picture Palace, Castle Street, for Messrs. G. R. Cooper, Ltd.; three houses, Banbury Road, for Mr. R. P. Capel; three flats, 219 Iffley Road, for Mrs. A. D. Carter; additions, Cherwell Hotel, Summertown, for Hall's Oxford Brewery, Ltd.; hall and dormitory, Temple Road, Cowley, for Salasian College trustees; new wing, Radcliffe Science Laboratory, Parks Road, for University of Oxford; eight shops and 21 flats, Observatory Street, for St. John Baptist College trustees.

The OXFORD Corporation has approved the lay-out of the second portion of the Between Towns Estate, Cowley, for Messrs. Moss and Son.

The OXFORD Corporation reports in favour of the construction of an open-air swimming-bath at Sunnymead.

THE WORCESTERSHIRE C.C. has obtained sanction to borrow £10,000 for the erection of a new steel bridge to replace Fladbury Jubilee Bridge.

NORTHERN COUNTIES

Mr. A. Hanson is to erect 51 houses in Green Lane and Clare Road, Wyke, BRADFORD.

The ECCLES Corporation is to prepare plans for the erection of 100 houses on the Peel Green estate.

Plans passed by the ECCLES Corporation: 20 houses, Lane End, for Housing Committee; 14 houses, Peel Green, for Messrs. S. Crompton and Sons; extensions, Thorp Street, for Eccles Co-operative Society.

Plans passed by the ROTHERHAM Corporation: Four houses and shops, Badsley Moor Lane, for Mr. J. W. Bailey; alterations, College Road Inn, College Road, for Mappins Masborough Old Brewery, Ltd.; three shops, Howard Street, for Sterling Estates, Ltd.; 14 houses, Beechwood Road, for Messrs. G. Bilton and Son.

Messrs. Sutcliffe and Taylor of ROTHERHAM are to develop an estate fronting Moorgate, Rotherham.

Messrs. Montague Burton, Ltd., are to construct new premises at the corner of North Street and Newborough, SCARBOROUGH.

Messrs. Wilkinson and Smith are to proceed with the development of the Newlands Park estate, SCARBOROUGH.

The SCARBOROUGH Corporation has arranged to sell a site in Burniston Road for the erection of a church.

Plans passed by the SCARBOROUGH Corporation: Four houses, Northstead Road, for Messrs. J. Petch and Son; two houses, Northstead Road, for Mr. G. H. D. Fawcett; six houses, Peasholm Crescent, for Messrs. F. Mitchell and Sons; hotel (amended plans), Wheatcroft, for Messrs. Jones and Rickaby; two houses, Northstead Road, for Messrs. G. Wright and Son; two houses, Northstead Road, for Mr. A. E. Wright.

Plans passed by the SOUTHPORT Corporation: Two houses, Talbot Street, for Mrs. E. Wright; development of land in Marshside Road and Cambridge Road, for Hesketh Estates, Ltd.; lay-out of the Botanic Gardens, for Mr. W. J. Poole; three flats, Lancaster Road, for Liverpool Victoria Friendly Society; development of Nile Bank, for Mr. Walter Wright; development of land in Queen's Road and Leyland Road, for Mr. W. J. Poole; shop and house, St. Clare Drive, and two houses, Manor Road, for Mr. A. James: creamery, Chesterfield Road, for Mr. Thos. Campbell; shop and workshop, Stamford Road, for Mr. E. Chantler.

SCOTLAND

The GLASGOW Corporation has agreed to a proposal of the John Faill trustees that industrial premises should be permitted on land at Tollcross Road and Sorby Street, subject to the Corporation agreeing to the type and elevation of the buildings.

Plans passed by the GLASGOW Corporation: Shops and houses, West Drumoyne, for Corporation Housing Department; shop, Eckford Road for Mr. William M'Kinley; factory reconstruction, Flemington Street, Springburn, for Craigpark Electric Cable Co., Ltd.; works extensions, Kennishead, for Messrs. Henry Wiggin and Co., Ltd.; picture house, Clarkston Road and Bogton Avenue, for Mr. W. Beresford Inglis.

The GLASGOW Education Committee has obtained a site on the Carnwadric housing estate for the erection of an elementary school.

WALES

Messrs. Henry Budgen & Co. have prepared plans for a shopping centre on the Fairwater Estate, CARDIFF.

Plans passed by the SWANSEA Corporation: Shop, Limeslade, for Mr. J. A. Evans; shop, Bellons Terrace, for Mr. D. W. Davies; additions, St. Helens Road, and wards, Phillips Parade, for Hospital Board; two houses, Glanmoor Road, for Modern Builders and Decorators, Ltd.; house and shop, Townhill, for Mr. S. L. Jones: rebuilding, Terminus Hotel, Rutland Street, for Messrs. S. Alsopp and Sons, Ltd.; store, Burrows Lodge, for Shell-Mex, Ltd.; billiard room, Trafalgar House, Oystermouth Road, for Trafalgar Club; dairy and container factory, Carmarthen Road, for Mr. David George; four houses, Derwen Fawr Road, for Mr. Syd. Davies.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A_1	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	„		1	7
Joiner	„		1	7
Machinist	„		1	8
Mason (Banker)	„		1	7
„ (Fixer)	„		1	8
Plumber	„		1	7
Painter	„		1	6
Paperhanger	„		1	6
Glazier	„		1	7
Slater	„		1	7
Scaffolder	„		1	3
Timberman	„		1	3
Navvy	„		1	2¼
General Labourer	„		1	2¼
Lorryman	„		1	5
Crane Driver	„		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2" Broken Brick	„		9	6
¾" „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, Add	„	2	0	0
„ Other Colours	„	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" „ „ „	„		1	11
3" „ „ „	„		2	2
4" „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ Sawn templates	„	7	6
„ Paving, 2"	F.S.	1	8
„ „ 3"	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	„	26	0	0
20" × 10" Countesses	„	19	5	0
18" × 10" Viscountesses	„	15	17	6
18" × 9" Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
„ green	„ „	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾"	Sq.		19	0
„ ⅞"	„	1	1	6
„ 1"	„	1	3	6
„ 1¼"	„	1	7	6
„ 1½"	„	1	12	0
Deal matchings, ⅝"	„		14	0
„ ¾"	„		15	6
„ 1"	„	1	4	0
Rough boarding ¾"	„		16	0
„ 1"	„		18	0
„ 1½"	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'–14' long,	per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3"–11½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	„	8	6
„ „ ½"	„	8	3
„ „ ⅝"	„	8	0
„ „ ¾"	„	7	6
„ „ ⅞"	„	7	6
„ „ 1"	„	7	6
„ „ 1¼"	„	7	6
„ „ 1½"	„	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9" offsets	„	4	0	6	3
Plinth bends, 4½" to 6"	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2⅞
„ „ 26 oz. „ „ „	„			3¾
Arctic glass, white	„			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„			6½
⅛" Hartley's rough rolled	„			7
¼" „ wired cast	„			10
¼" Georgian wired cast	„			11
¼" Polished plate, n/e 1 ft.	„	†7½	to	‡1 0
„ „ 2	„	†10	„	‡1 3½
„ „ 3	„	†1 4½	„	‡1 10
„ „ 4	„	†1 11	„	‡2 4
„ „ 6	„	†2 3	„	‡2 7½
„ „ 8	„	†2 5	„	‡3 0½
„ „ 12	„	†2 10	„	‡3 3½
„ „ 20	„	†3 3½	„	†3 9
„ „ 45	„	†3 6½	„	‡4 0½
„ „ 65	„	†3 11½	„	‡4 4
„ „ 90	„	†4 4	„	‡4 9
„ „ 100	„	†4 6	„	‡4 11
Vita glass, sheet, n/e 1 ft.	„			1 0
„ „ „ 2	„			1 3
„ „ „ over 2	„			1 9
„ „ plate, n/e 1 ft.	„			1 6
„ „ „ 2	„			3 0
„ „ „ 5	„			4 0
„ „ „ 7	„			5 0
„ „ „ 15	„			6 0
„ „ „ over 15	„			7 6
Putty, linseed oil	lb.			3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay . . . add	„		3	0
If in underpinning . . . „	„		5	0
Digging, return, fill and ram . . . „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	3	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1¼" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

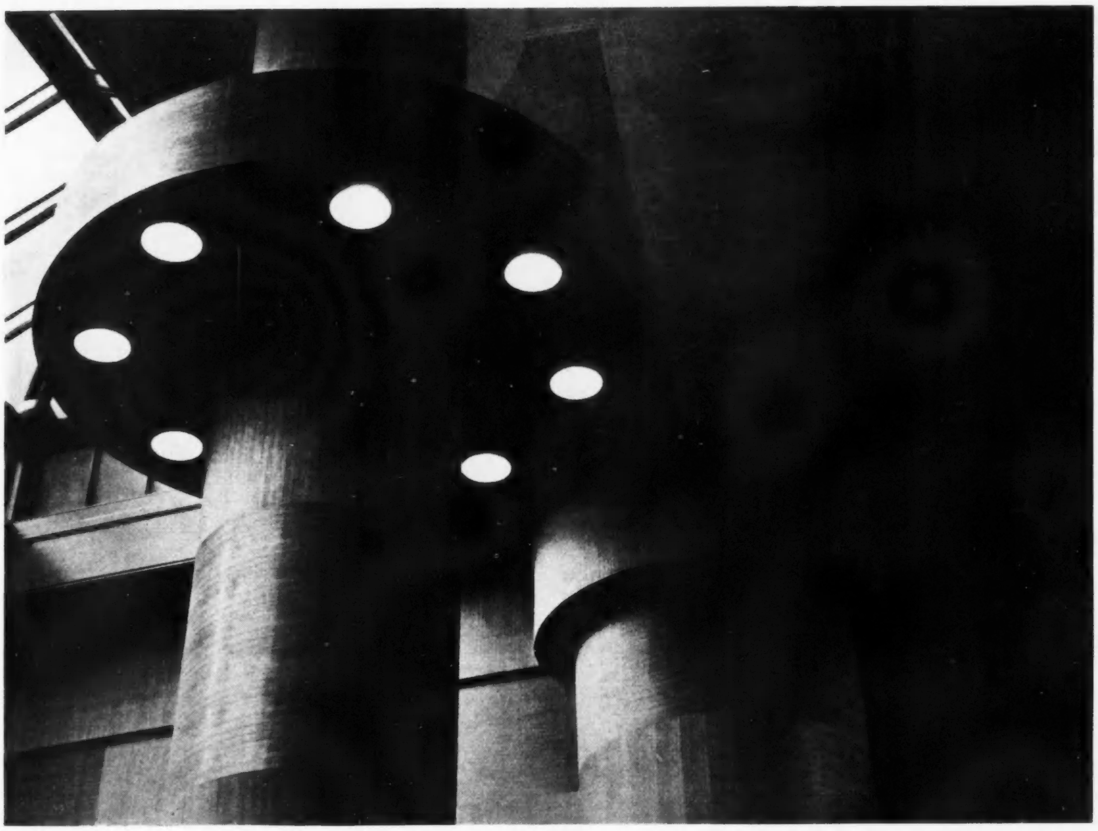
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8¼
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	„	2	9

SHOWROOM INTERIOR, LONDON, W.C.

FOR DRYAD HANDICRAFTS : : L. H. BUCKNELL, ARCHITECT

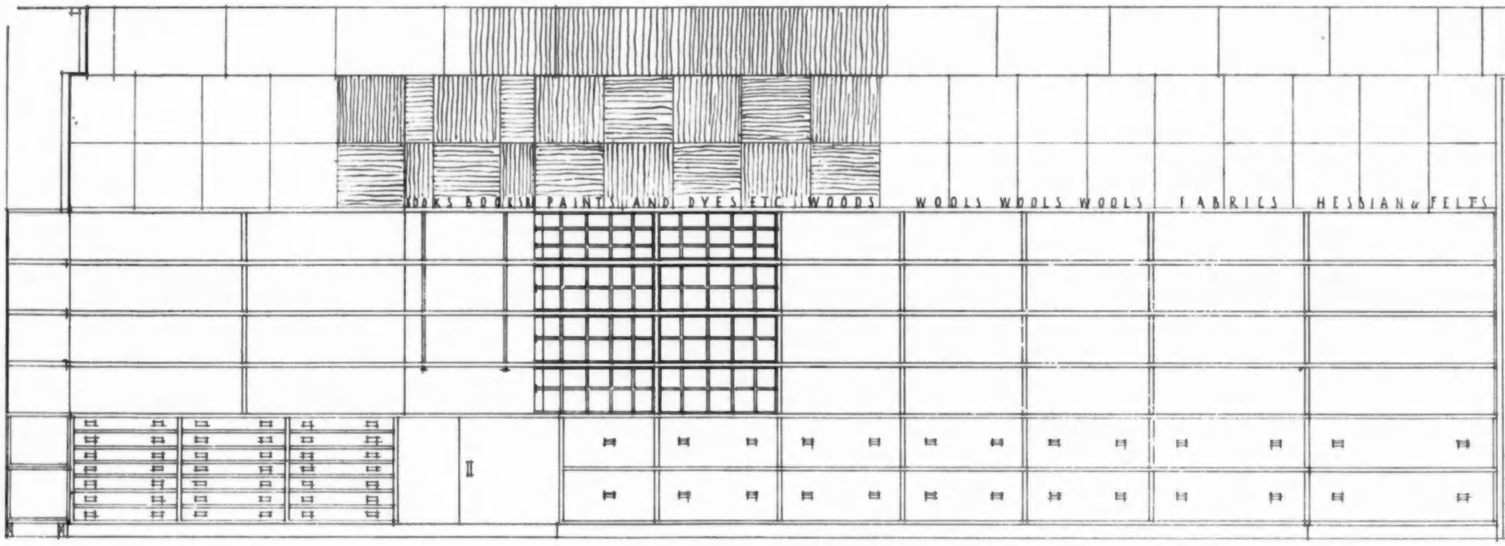


ONE OF THE OLD CAST IRON COLUMNS, CASED AND FITTED WITH LIGHTS

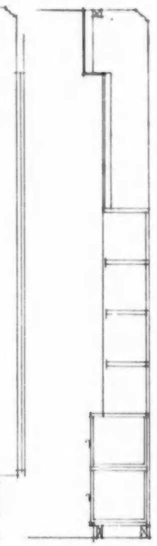
IN a perfectly ordinary interior in Bloomsbury there has come into being the modern showroom pictured, photographically, in this supplement and elsewhere in the present issue (the complete plan is given on page 295). As will be seen from the sectional elevations reproduced, with their plans, on the following three pages, the walls are almost entirely lined with shelves, lockers and racks. Their fronts are continued up to the ceiling to avoid ledges and to conceal the existing cornice. Horizontal shelves are faced with sycamore; vertical divisions and backs are painted turquoise blue.

Turquoise blue is also the colour of the underside of the electric light fittings which project from the casing encircling two of the cast iron columns that existed in the old shop. These casings are faced with wood veneer paper, which is also extensively employed on the uppermost parts of the walls.

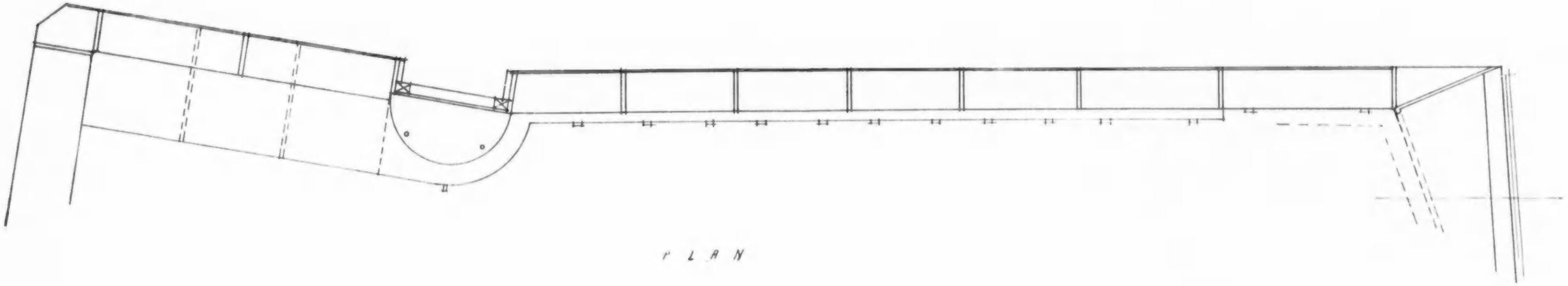
The showroom, with its sycamore joinery, veneer, and plywood, presents a general background of silver grey, against which touches of brighter colour are sparingly introduced, as in the drawer handles, of duck's-egg blue and chromium.


BOOKS BOOKS PAINTS AND DYES ETC WOODS
WOOLS WOOLS WOOLS
FABRICS
HESSIAN & FELTS

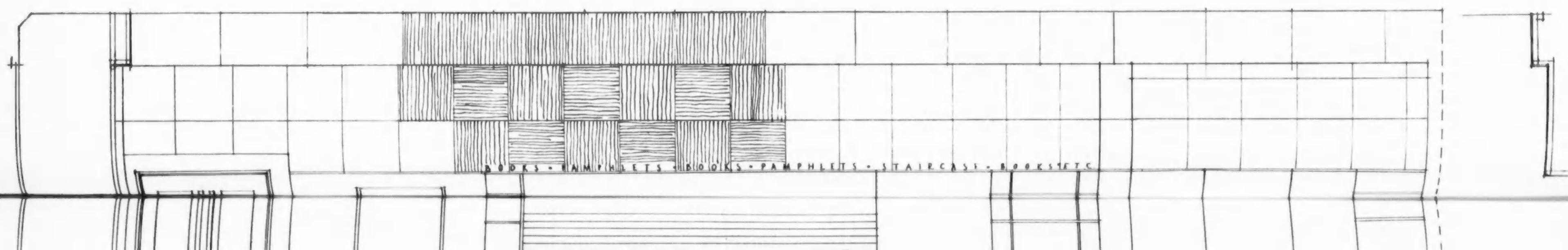
SECTIONAL SOUTH ELEVATION

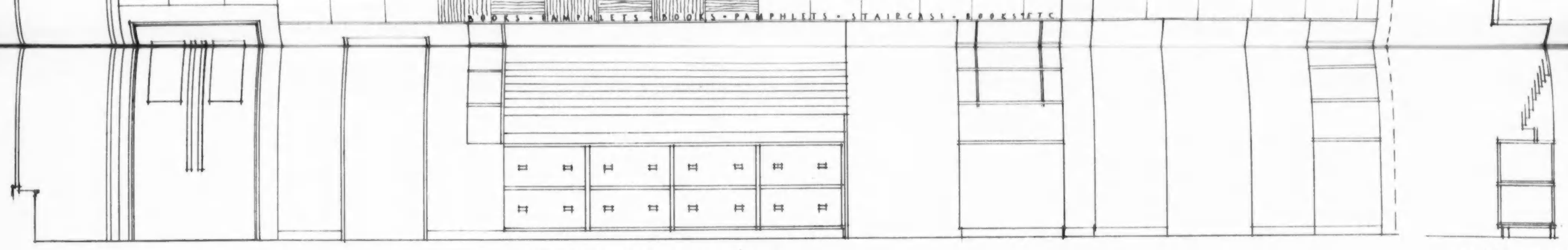


SECTION



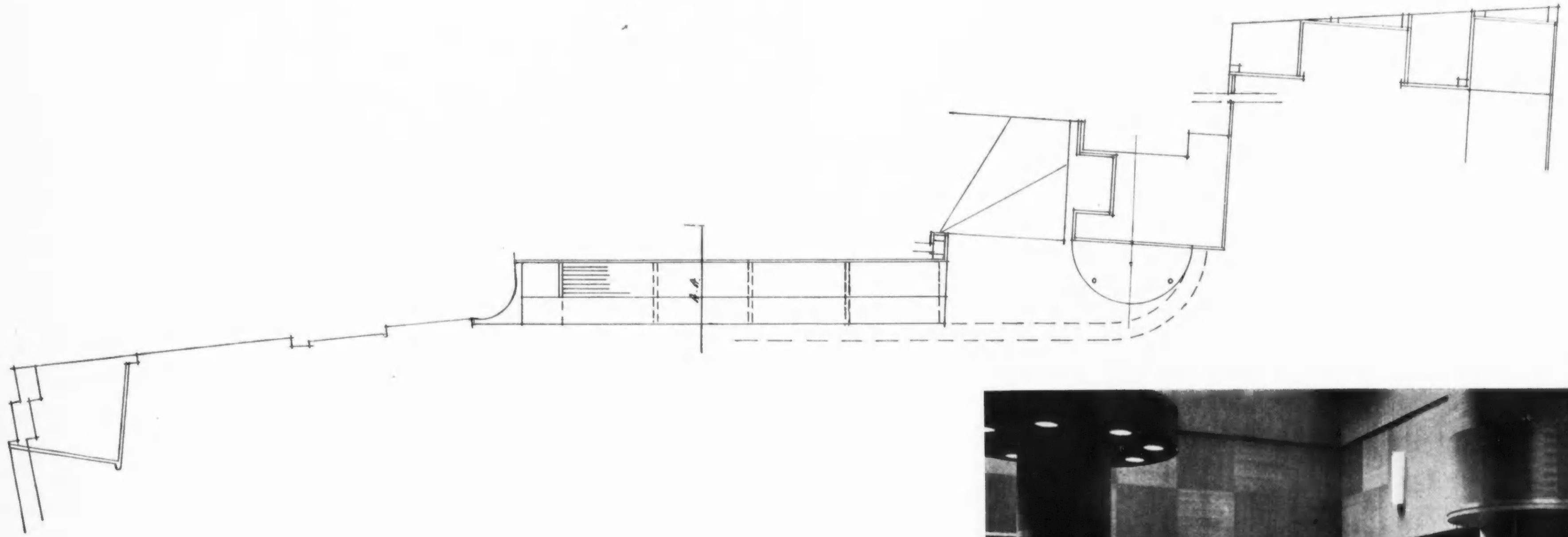
PLAN


BOOKS · PAMPHLETS · BOOKS · PAMPHLETS · STAIRCASE · BOOKS ETC


BOOKS · PAMPHLETS · BOOKS · PAMPHLETS · STAIRCASE · BOOKSETC.

SECTIONAL NORTH ELEVATION

SECTION AA.



1
0
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3
4
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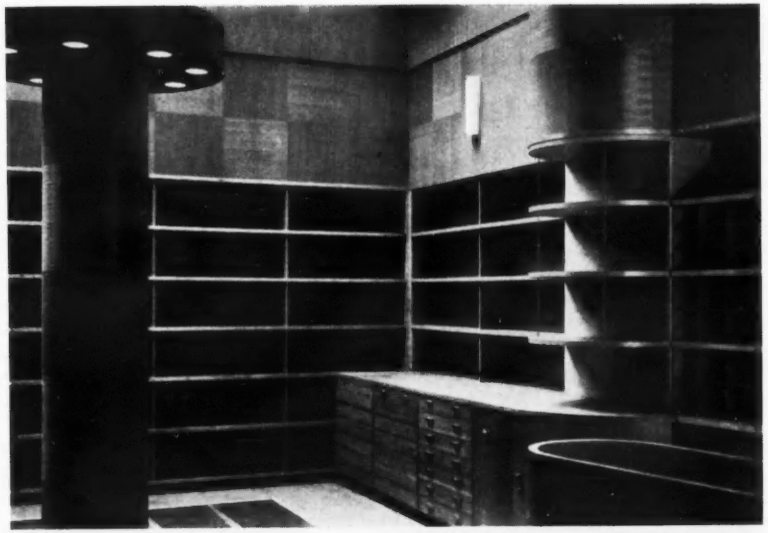
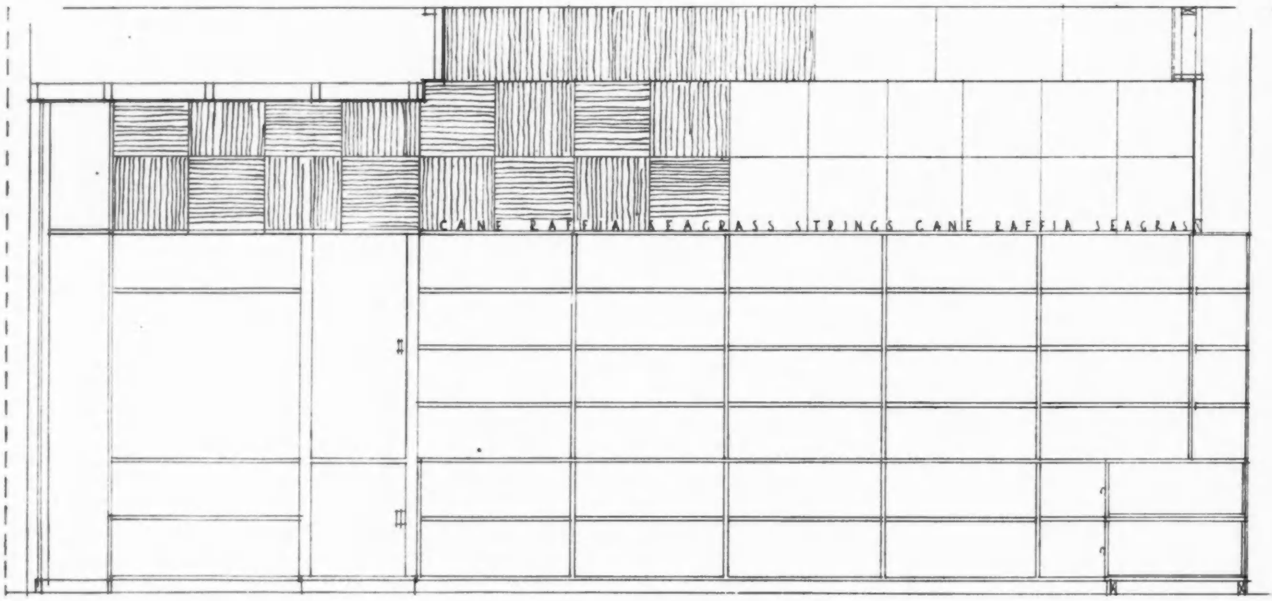
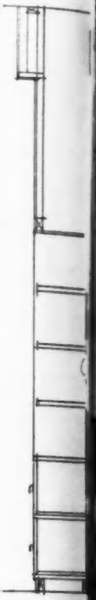
15

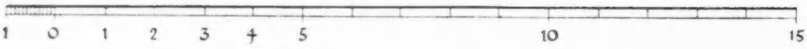



CANE RAFFIA SEAGRASS STRINGS CANE RAFFIA SEAGRASS

SECTIONAL EAST ELEVATION.



SECTION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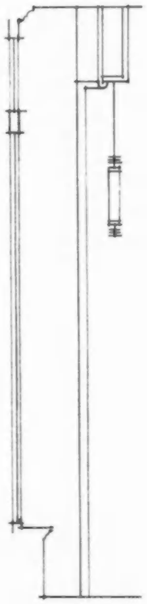
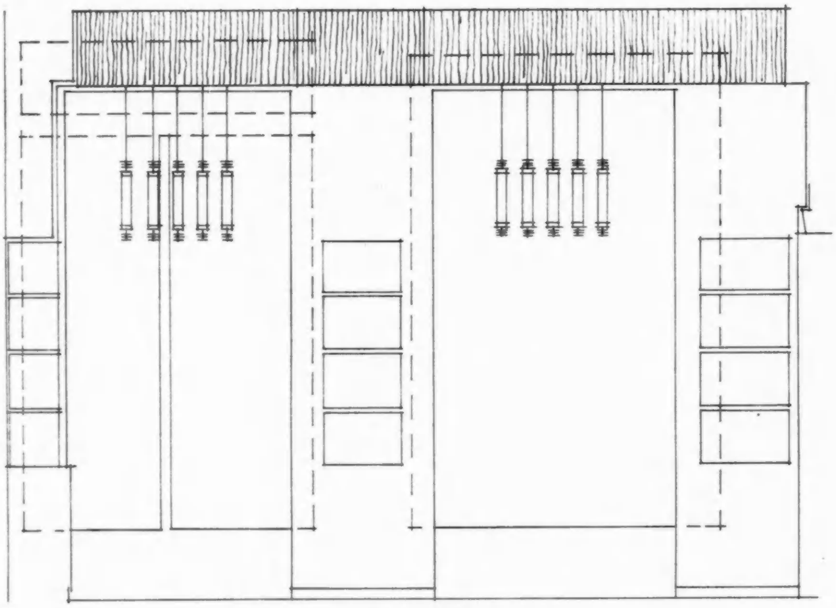
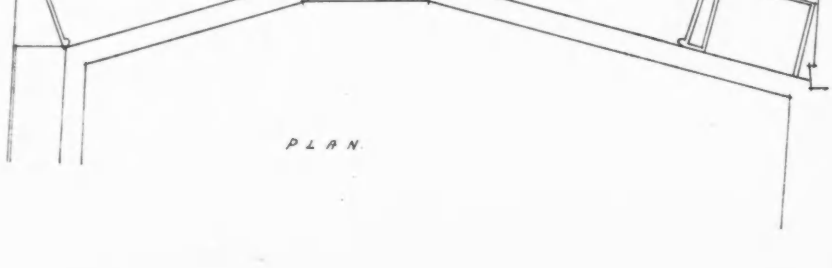


SECTION B-B



SECTIONAL WEST ELEVATION



PLAN.

CTION

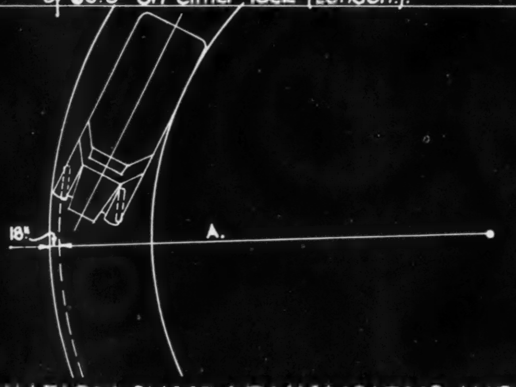
The sizes given below are based on 1932 models.

MAKE.		LENGTH	BREADTH	HEIGHT	TURNING DIAM.
CARS :					
Rolls Royce	40-50 (long chassis).	17' 6"	6' 3"	7' 0"	55' 0"
Daimler	40-50.	17' 0½"	6' 6"	6' 11"	48'. 0"
Sunbeam	25 h.p.	15' 7"	6' 1"	6' 2"	51'. 0"
Austin	20.	14' 10"	5' 10"	5' 11"	44' 6"
Austin	16-6.	13' 8"	9' 6"	5' 11"	42' 0"
Morris Cowley		13' 5"	5' 2"	5' 9"	39' 0"
Austin	12-6.	12' 10"	5' 0"	5' 8"	42' 0"
Austin	7.	10' 0"	4' 2"	5' 4"	33' 0"
Ford	8 h.p.	11' 11" incl. bumpers	4' 6"	5' 4"	31' 5"
Morris Minor		9' 10" incl. bumpers	4' 3"	5' 0"	30' 9"
Cadillac		18' 8"	6' 1"	6' 2¾"	55' 8"
Packard	645	17' 6½"	6' 0"	6' 0½"	54' 8"
Lincoln		16' 7½"	5' 10"	6' 5"	50' 5"
Chrysler	77	15' 9"	5' 9¾"	6' 0"	42' 0"
Packard	626	15' 9"	6' 0"	6' 0½"	45' 2"
Chrysler	66	15' 2"	5' 9¼"	5' 11"	40' 0"
Ford A.		12' 11¼"	5' 7"	6' 0¼"	34' 0"
TAXIS. . (for London service).					
Austin		13' 10"	5' 6½"	7' 0"	25' 0"
AMBULANCES.					
Austin	20 H.P.	17' 6"	5' 9"	7' 10"	. .
Austin	16 H.P. & 12 H.P.	14' 1"	5' 8"	7' 7"	. .
'BUSES.					
Green Line coach		26' 0"	7' 6"	9' 9"	56' 0"
L.G.O.C.	short W.B. double deck.	27' 3"	7' 6"	14' 3"	56' 0"
	double deck 4 wheeler	26' 0"	7' 6"	14' 0"	56' 0"
COMMERCIAL VEHICLES					
Leyland	4 wheeler	25' 6"	7' 6"	12' 0"	
	6 wheeler	27' 6"	7' 6"	12' 0"	

RAMPS : in garages : maximum rise, 1 in 6, average 1 in 7.

PARKING : in garages : width, allow 6'9" - 7'0" per car 20'3" in clear for a 3-car bay is common.
depth, allow 15'0" sufficient for garages with average clientel.
aisles, allow 20'0"

N.B. The licensing authority requires all vehicles to be capable of a complete turn within a diameter of 60'0" on either lock (London).



The turning diameter given above is twice the dimension "A" plus twice the wing overhang of 18". The rear overhang of the body does not effect the turning diameter unless the overhang is exceptionally long

INFORMATION SHEET : DIMENSIONS AND TURNING DIAMETERS OF MOTOR VEHICLES
SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS • 7 • MOTOR CAR DATA

Supplement to THE ARCHITECTS' JOURNAL for March 1, 1933

INFORMATION SHEETS

• 7 •

MOTOR CAR DATA

•

THIS week's Information Sheet goes yet further afield. Its tabulated measurements of cars, motor buses and other road vehicles will be invaluable to architects concerned in planning garage accommodation.

The drawings from which all these Information Sheets are reproduced originated in the office of Sir John Burnet, Tait and Lorne. Far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, thus placing the whole profession in their debt, and incidentally furnishing the student of fine draughtsmanship with specimens for emulation.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

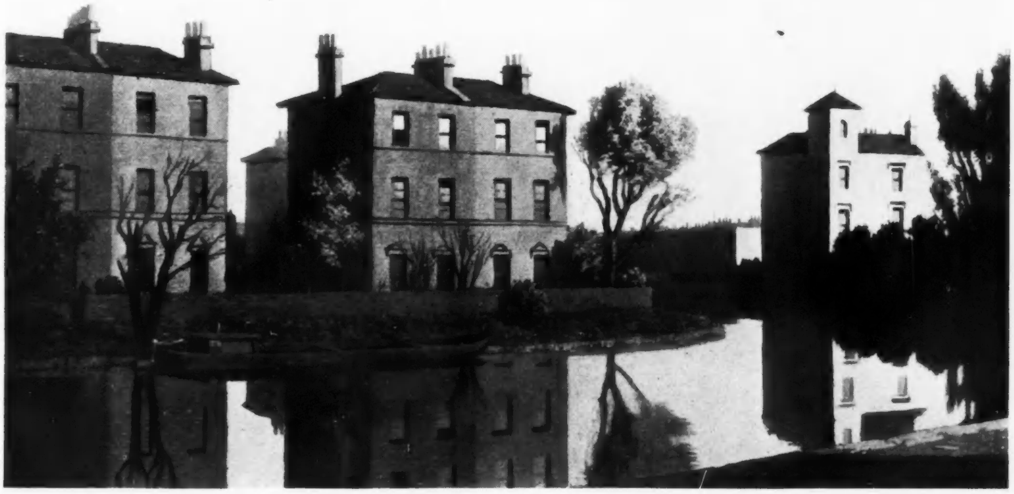
Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

The following is a list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.

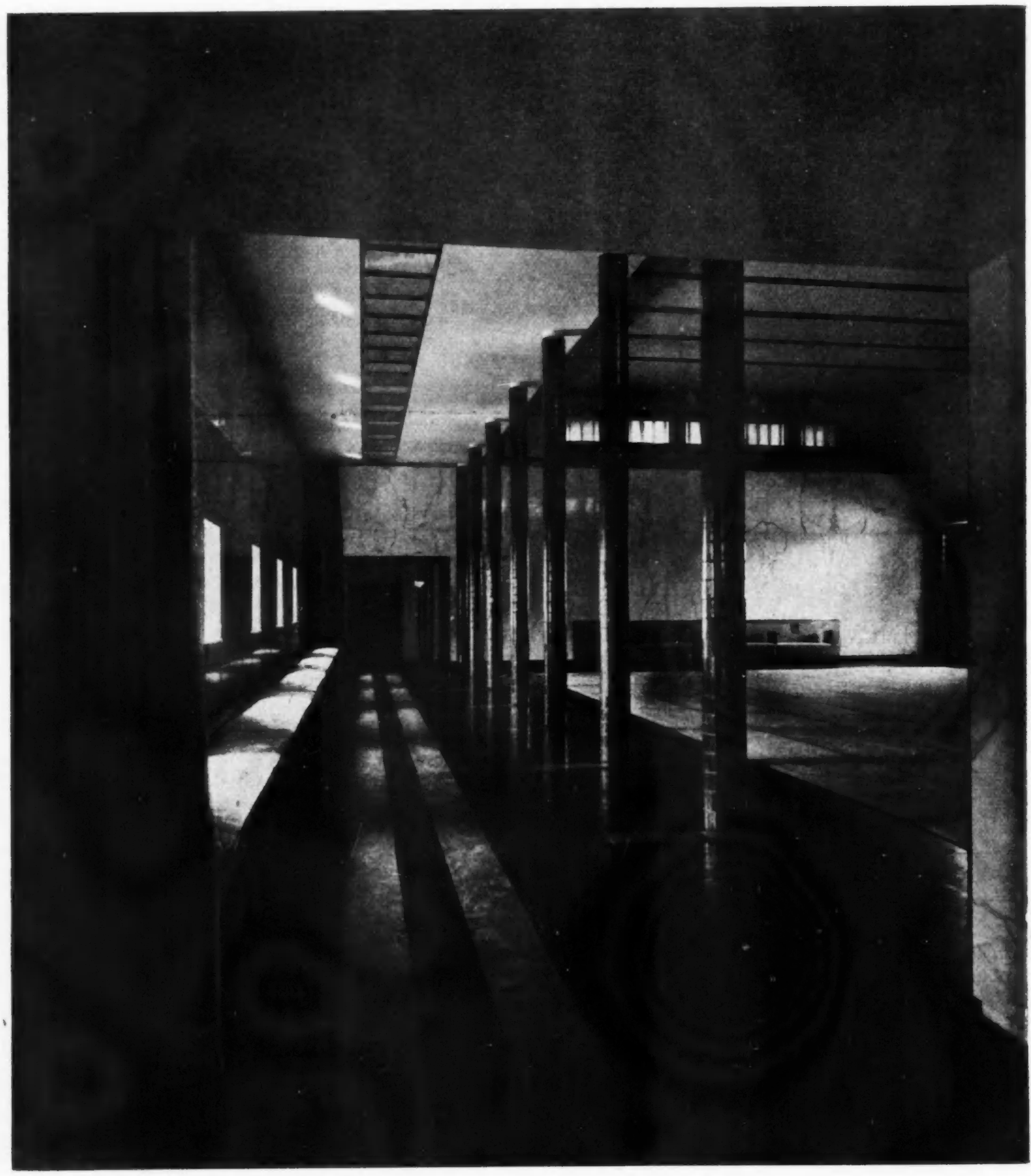
THE CANAL, MAIDA VALE, LONDON, N.W.

FROM THE ALGERNON NEWTON EXHIBITION



THE static quiet of Algernon Newton's paintings, which are now being shown at the Leicester Galleries, brings a comforting sense of restfulness to eyes which are tired of seeing the buildings of London only through the interstices of dazzling electric signs. Needless to say, however, the artist has had to seek his subjects in the less "popular" parts of the city, where, far from being decked out in tawdry finery, the buildings are falling slowly into shabby-genteel decay. Nevertheless, none of their austere dignity is lost, for they are seen through the soft diffusive atmosphere which Mr. Newton excels in capturing, and which makes London sometimes incomparably lovely.

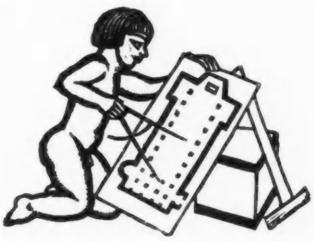
There is an admirable harmony between the technique of the artist and the subjects of his pictures, though this is less complete when he is painting landscape or using his brush more freely than is his usual custom, than when he is painting from his favourite models—the fading beauties of the stucco houses of the Regency period.



HILVERSUM TOWN HALL : THE BRIDAL AISLE

W. M. DUDOK, ARCHITECT

Civil marriage in Dudok's Hilversum Town Hall is an affair of some circumstance. The betrothal party arrives at the main entrance—otherwise used only by Town Councillors when in session—via a long ceremonial covered-walk alongside an ornamental lake. From the entrance hall, stairs of black and white marble have to be ascended, and the course then lies across the large " burgersaal " or public lobby shown in this illustration. It is brightly decorated (in contrast to the sober treatment of the council chamber), and across it the bridal pair see their goal—the red double doors leading to the betrothal rooms. Dudok speeds their passage thereto with a couple of light stripes let into the dark flooring to mark the way of advance up this side aisle. On leaving the betrothal room, which is decorated in red, white and silver, the pair make use of a stairway exclusively reserved for the occasion, leading down to the outer courtyard where the carriages wait.



WHERE MR. CHAMBERLAIN WENT WRONG

IN the leading article in the last issue of the JOURNAL, attention was called to statements made by *The Times* and by the Chancellor of the Exchequer with regard to the employment afforded by public works. The method of estimating the employing capacity of such schemes was then set out by means of an exhaustive analysis of the building and construction costs involved. With this preliminary, we may now examine the matter further, not, let it be clearly understood, with the object of attacking the National Government but, if possible, to convince its responsible members of the error of an anti-building campaign.

The particular part of the speech delivered by the Chancellor in the House on Thursday, February 16, which arrests the attention of those acquainted with the Building Industry, is reported in *Hansard* as follows:—

> " There is an enormous sum of money which in the last seven and a half years has been poured out on public works. Nearly £100,000,000 a year has been spent, and what effect has it had in reducing unemployment? I confess I was astounded to find that the average number of men directly employed through the expenditure of this money was only 90,000."

Well might the Chancellor be astounded.

The expenditure of £100,000,000 per annum, or of £700,000,000 in the last seven years, is divided up as follows: housing under subsidy, £450,000,000; grants under the Lewis Committee, £40,000,000; schemes under the Unemployment Grants Committee, £120,000,000; roads, £90,000,000.

The section concerning which there is most published matter, apart from housing, is that under the Unemployment Grants Committee. In Cmd. 3449, of 1929, it is stated, concerning schemes under the Committee, that "about 50 per cent. of the expenditure incurred represents wages." On this basis the expenditure of £16,000,000 per annum would employ directly, at £120 per annum—the figure taken by the Committee—66,666 men every year.

Thus, according to this calculation, the expenditure of the remainder of the £100,000,000 per annum—£84,000,000—only employed 23,334 men.

This is obviously absurd. Housing employs more men for a given expenditure than works under the Unemployment Grants Committee, and expenditure upon it was four times as great. So, even on the face of it, we might assume that the Chancellor's 90,000 men were employed, not by the total expenditure of £700,000,000 in the seven years, but by the £250,000,000 of work which remains after leaving housing out of account.

As a matter of fact, information available with regard to the other schemes bears out this contention. The schemes under the Lewis Committee are not very different, on the average, from those under the Unemployment Grants Committee. Applying the method of the latter Committee, the expenditure of £6,000,000 per annum under the former would employ 25,000 men for a year. This work and work on roads, together with the work under the Unemployment Grants Committee, would certainly employ at least 90,000 men per annum directly, irrespective of employment on housing.

These figures are indeed so unanswerable that it has now been admitted officially that a mistake was made. *Mr. Chamberlain accidentally attributed to the expenditure of £700,000,000 the employment which resulted from the expenditure of £250,000,000.*

The irony of the situation is all the greater in that a passage from Mr. Chamberlain's speech immediately before the passage quoted above, runs:

> " The right hon. Gentleman (Mr. Lansbury) has been to a large extent basing his denunciation of the present Government upon a misrepresentation—I am not saying a wilful misrepresentation, but perhaps I might say a misunderstanding. . . . "

An expenditure of £36,000,000 per annum—that is £250,000,000 in seven years—on public works, including " relief schemes," employs 90,000 men directly. It thus requires £400 to employ one man directly for one year. This is not in conflict with the proportions discussed last week, since they concerned only the building and construction cost, whereas total expenditure on public works includes charges for land, wayleaves, and other items.

On the assumption made in our leading article last week that 40 per cent. of expenditure on such schemes goes immediately as wages, £120, the wages for one man directly employed for one year, is 40 per cent. of the cost of building or construction. The total cost is therefore £300. This leaves £100 out of the £400 for land, etc., charges. It would therefore appear that, of the expenditure on such schemes, 25 per cent. on the average goes to meet charges other than those for the actual work of building or construction.

Mr. Chamberlain himself admits, however, that every man employed directly requires another man to supply him with materials. Our £400 per annum therefore employs two men for a year. To push the matter to the last stage, those two men require another to furnish them with food and clothing. The total effect of the expenditure of £400 on public works is therefore to employ three men for one year. The saving to the unemployment funds amounts to £169 per annum; £156 in benefit at £1 per week and £13 on employers' and employees' contributions at 10d. per week each. The net cost of employing the three men for a year and getting work done to the value of £400 is thus only £231.

NOTES & TOPICS

THE MIRACLE OF THE GRID ; AND WHO CARES ?

IF you talked once about Sweden, talk now about Russia, and a packed roomful of *intelligences* sit goggle-eyed with receptiveness, filling up with the latest snob-chat for communal use.

*

But let the A.A. stage a meeting to hear what we ourselves have planned, and through the Electricity Commissioners, actually carried out, and a handful of people try to look like an audience, while Sir Thomas Purvis and Sir Andrew Duncan explain how retrograde England performed the miracle of the Electric Grid, while we were talking about it.

*

It is, I think, an extraordinary thing that this piece of national planning, that has spread light and power in a network all over England and is about to affect the whole trend of future development, should not be examined closely by more than a benchful of architects.

*

" Architects," as Wyndham Lewis said, " where is your vortex ! "

*

THE ARCHITECTURAL WORM TURNS

I suppose one must accept a good deal of tommy-rot from the daily Press without complaint, yet just occasionally, and in terms of mild correction, the architectural worm will turn.

*

Due to her contributions to the Press, Miss Elizabeth Craig occupies a position to influence opinion in matters of house organization and planning. On February 12, in an article published in *The Sunday Express*, her influence was misdirecting. She described her ideal house, which, by efflux of time, is now a Georgian house, and in a detailed article, illustrated by plans, showed the uninitiated how to manage an architect by telling him where to put everything, including the stairs.

*

Now, unfortunately, her staircase, " a simple, gracious affair," to quote her verbal description, is shown on her plan to be, even if simple, just a little less gracious in allowing a headroom of 24 ins. only, a generous allowance for a worm, but not a Georgian, nor a neo-Georgian.

*

Was it her architect that blundered, or was this little plan the sort of thing a good client makes, only to forget as soon as she realizes, by contact with the reality of planning, that nothing is so simple as it looks ?

*

Miss Craig does not entirely forget the architect with the stairs, but Miss Dora Kilmartin, of Whitton, Middlesex, is no friend at all. To *The Sunday Express* reporter she said :

> I believe a great proportion of unhappy marriages have been caused in the first place by architects who have never cooked a meal, washed the dishes or swept and dusted a house. . . .

*

Miss Kilmartin is class-conscious. Or is this a further manifestation of the theory that all architects are gentlemen of the type that butlers show immediately into the right room ?

*

" Gentlemen never look out of windows," said Oscar Wilde. Architects never . . . but come, come, nearly all architects start by washing the dishes, and a good deal more, and are better husbands, perhaps, but only ever so slightly better architects.

*

The right person, I feel, to answer Miss Kilmartin's unkind references to our well-meant efforts is a woman architect of my acquaintance. They would make an excellent broadcast between them.

*

KING'S CROSS AIR-PORT—

A company is being formed to build the elevated air-port at King's Cross on which Captain C. W. Glover has for long been working.

*

The air-port is planned like an eight-spoked wheel, half a mile in diameter, each spoke a runway 250 ft. wide, and the whole raised on supports which will be warehouses, hangars, etc, 120 ft. high.

*

The plan aims at a co-ordinated centre of all forms of transport placed in the heart of London. I wish to goodness we knew what effects such a scheme will have upon the plan of London.

*

—AND ONE FOR ROCHESTER ?

There is talk, too, of Rochester, Kent, becoming an air-port of some consequence. Several air lines pass over the town —without stopping—and it has occurred to the elders that Rochester with a port, good land communications, and a rising industrial activity, might very well tap the air lines to its advantage.

*

These things, and a good landing ground site most certainly exist, but one feels that the consideration of such questions is somehow tied up with national planning, and that, in the forthcoming co-ordination of transport resources, both the air and land organization of civil air traffic should be the subject of a nationally envisaged plan of campaign to promote efficiency and avoid damage.

*

THE R.I.B.A. DINNER

I confess I have seldom attended a more enjoyable function than the Institute's annual dinner, held at Claridge's Hotel, on Friday last. Fred May, whom I saw there, sketching personalities for a page in this JOURNAL, must have had a difficult time selecting his subjects from such a large gathering.

*

I offer the R.I.B.A. my hearty congratulations in choosing the speakers. They were all brilliant—particularly Sir Josiah Stamp, who discoursed at an enormous pace. It struck me, while Sir Raymond Unwin was speaking, that it would be a tribute to his excellent work if he were again re-elected to the presidency.

THE ARCHITECTS' DIARY

Wednesday, March 8

R.I.B.A., 9 *Conduit Street, W.*1. First of a series of six lectures on How to Look at London. "Piccadilly." By H. S. Goodhart-Rendel, F.R.I.B.A. 6 p.m. Also exhibition of architects' working drawings. Until March 17 (10 a.m. to 8 p.m., Saturdays 5 p.m.).

*ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, W.*1. Winter exhibition, 10 a.m. to 6 p.m. Until March 11. 10 *a.m.*

*L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.*1. "Roman Architecture—VIII." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

*ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.*2. "Recent Developments in the Warming and Ventilation of Buildings." By J. L. Musgrave. 8 *p.m.*

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 *Conduit Street, W.*1. "The English Parish Church Before the Reformation: II: From the Normans to the Black Death." By F. Herbert Mansford, F.R.I.B.A. 8 *p.m.*

Thursday, March 9

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.*1. "Reinforced Concrete Grain Silos." By T. J. Gueritte. 6.30 *p.m.*

*SOCIETY OF ANTIQUARIES, Burlington House, W.*1. "The Abbot's House at Battle Abbey." By Sir Harold Brakspear, F.R.I.B.A. 8.30 *p.m.*

*GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.*2. "Hepplewhite Furniture." By F. Skull. 7.30 *p.m.*

Friday, March 10

INSTITUTION OF STRUCTURAL ENGINEERS (Midland Counties Branch). At the Chamber of Commerce Building, New Street, Birmingham. "The Manufacture of Pre-Cast Concrete Units and Cast Stone." By E. L. Cotterell. 6.30 *p.m.*

*TOWN PLANNING INSTITUTE. At Caxton Hall, Caxton Street, S.W.*1. "The Town and Country Planning Act and Town Centres." By H. H. Humphries, C.B.E. 6 *p.m.*

Monday, March 13

*ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.*2. "Welding and Allied Processes for Engineering Purposes." By A. Stephenson. 8 *p.m.*

Tuesday, March 14

INSTITUTE OF LANDSCAPE ARCHITECTS. At the A.A., 34 *Bedford Square, W.*1. "The Education of a Landscape Architect." By Gilbert H. Jenkins, F.R.I.B.A. 3.30 *p.m.*

ROYAL SANITARY INSTITUTE, 90 *Buckingham Palace Road, S.W.*1. Discussion on "Town and Country Planning," to be opened by W. T. Creswell, HON. A.R.I.B.A. 5.30 *p.m.*

*ILLUMINATING ENGINEERING SOCIETY. At the Institution of Mechanical Engineers, Storey's Gate, S.W.*1. "Progress in Illuminating Engineering." By Dr. Ing. N. A. Halbertsma. 7 *p.m.*

*LONDON SOCIETY. At the Mansion House, E.C.*4. Annual meeting. 4.30 *p.m.*

MESSRS. PINCHIN JOHNSON

I have been asked to correct an error which appeared in an article contributed to this JOURNAL a week or two ago. The statement was to the effect that Messrs. Pinchin Johnson is a firm which, by reason of some of its directors and the holdings of certain blocks of shares, must come under American influence. Further, in ignoring public opinion in regard to No. 4 Carlton Gardens, the firm is thinking only of the interests of its American shareholders.

*

It was a silly statement which originated in the House of Commons and was reproduced therefrom.

*

Silly, first, because to distinguish between the nationality of directors or shareholders is an unprofitable speculation, not always calculated to uphold "British prestige." Secondly, because it is an appeal to prejudice rather than to reason, and as such to be deplored. Thirdly, because whether the directors and shareholders of Pinchin Johnson are American or English has no sort of bearing on the Carlton Gardens controversy.

Lastly, it is silly because it is not true. Messrs. Pinchin Johnson have every right to protest against it, and in making the *amende honorable* which the Editor has asked me to offer in the name of this JOURNAL, I would like to give full publicity to a statement I have received from the managing director of that firm, to the effect that 0.35 per cent. of the shares are held by Americans, that none of the directors is an American, and that the business is not controlled or influenced by Americans or American capital in any shape or form.

*

"WHAT MIGHT BE"

Mr. Clough Williams-Ellis, I understand, is reported on another page to have said that if either he or Sir Raymond Unwin had been supreme dictator of this country 30 years ago we would have escaped all our troubles. Thereupon Sir Raymond gave his own version of a *Punch* poem, thus:—

If Jones were Dictator of England—
And he hasn't refused it yet—
He would levy a tax on these Oxford slacks,
And pay the American debt.

If Brown were Dictator of England,
He would stop this shingled hair;
For *he* thinks the girls ought to keep their curls
That grandmother used to wear.

So if I were Dictator of England,
I'll tell you what I would do;
I would sell Clough the job for fifteen "bob,"
And throw in some good advice, too.

WHICH DO YOU PREFER?

The authentic Landseer lion, guaranteed genuine, of Trafalgar Square—

—or the replica built in Hollywood for the filming of Cavalcade?

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

" Gentlemen never look out of windows " 322
An unashamed admirer of the Albert Memorial 326
The reconstruction of the Guildhall will save £25,000 in unemployment pay .. 326
The road system of this country totals 177,000 miles 333
In every sphere of electrical use there is need for architectural co-operation .. 337
Buildings, like ourselves, have bodies and skins ; unlike ourselves, they require no clothes 339
Snobbery, sentiment and stupidity are drags on advance in design 340
Today, Norwich Town Hall might cost £200,000 to build ; in three years' time, more than double 342
The whole countryside from London to Brighton a series of suburban horrors 343
A full-size billiard table weighs rather over a ton .... Suppt.

SIR W. REYNOLDS-STEPHENS

Sir William Reynolds-Stephens, President of the Royal Society of British Sculptors, will, it is announced, retire from office upon the completion of his eleventh year of service at the end of March.

BRITISH ART IN INDUSTRY

Following are extracts from a letter on the Royal Academy Exhibition of Contemporary British Art in Industry, 1935, signed by Sir William Llewellyn, President of the Royal Academy, and Mr. John A. Milne, Chairman of the Council of the Royal Society of Art :

> The urgent national need for the encouragement and support of British Industry has caused the Councils of the Royal Academy of Arts and the Royal Society of Arts to decide upon action within the sphere of their special competence which will, we feel, materially assist in that direction. The means by which they seek to stimulate a quickened interest in British Industry is to devote the Royal Academy's Winter Exhibition of January–March, 1935, to an EXHIBITION OF CONTEMPORARY BRITISH ART IN INDUSTRY to be held by the Royal Academy of Arts in collaboration with the Royal Society of Arts. The special aims and scope of this exhibition are fully explained in a memorandum and circular letter which has been sent to the principal British Industrial Organizations interested in the project.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,242/8/4. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

> Their Majesties the King and Queen have graciously consented to be the Patrons, and H.R.H. the Duke of Connaught (President of the Royal Society of Arts) to be the Vice-Patron of the Exhibition, whilst H.R.H. the Prince of Wales has accepted the Presidency of the General Committee which is being formed.
>
> No contributions will be asked from the exhibitors towards the expenses of the exhibition, and no charge made for space. It will thus be seen that it is intended to keep the organization of the Exhibition entirely free from any influences other than those which aim at stimulating in the national interest a fruitful co-operation between the manufacturer and the artist as designer.

SOUTH WALES ARCHITECTS' MEETING

The Western Branch of the South Wales Institute of Architects held their annual general meeting at Swansea last week.

Mr. Edwin Smith, A.R.I.B.A., P.A.S.I., of Neath, was re-elected Branch Chairman, and the following officers were appointed to the Branch Committee : hon. secretary, Mr. J. Herbert Jones, F.R.I.B.A. (President S.W.I.A.) ; hon. treasurer, Mr. G. R. H. Rogers, L.R.I.B.A. Members to serve on the Branch Committee :

Messrs. O. S. Portsmouth, A.R.I.B.A. ; Charles S. Thomas, F.R.I.B.A. ; H. A. Ellis, F.R.I.B.A. ; F. A. Broad, L.R.I.B.A. ; and E. E. Morgan, A.R.I.B.A. Student Members : Messrs. Ernest Billings and W. Roy Thomson.

The following members were elected to serve on the Council of the South Wales Institute of Architects, as from July 1, 1933 :

Messrs. C. S. Thomas, F.R.I.B.A. ; G. R. H. Rogers, L.R.I.B.A. ; Edwin Smith, A.R.I.B.A., P.A.S.I. ; H. A. Ellis, F.R.I.B.A. ; C. S. Portsmouth, A.R.I.B.A. Students' Representative : Mr. W. Roy Thomson.

AN EDINBURGH EXHIBITION

A comprehensive display of builders' materials of all kinds, staged both by Scottish and by national producers, is now on show at the Scottish National Building Exhibition, Waverley Market, Edinburgh. It will remain open until March 11.

TOWN AND COUNTRY PLANNING ACT

The Minister of Health issued, on Saturday last, a circular letter to local authorities on the Town and Country Planning Act, 1932. He points out that the gains to the community from the Act will depend on how the powers are exercised by local authorities. The principal object of a planning scheme should be to provide a plan within which initiative and enterprise, whether private or public, may be exercised to the best advantage.

A summary of the Act is also being issued, and copies of the circular and of the summary may be purchased from the Stationery Office or through any bookseller, price 4d. each.

R. I. B. A.

THE ANNUAL DINNER

A surprisingly large number of members and guests were present at the annual dinner of the Institute, held at Claridge's Hotel on Friday last, with Sir Raymond Unwin, the President, in the chair. The toasts (excluding that of the King and other members of the Royal Family, proposed by the President) were given and responded to as follows :

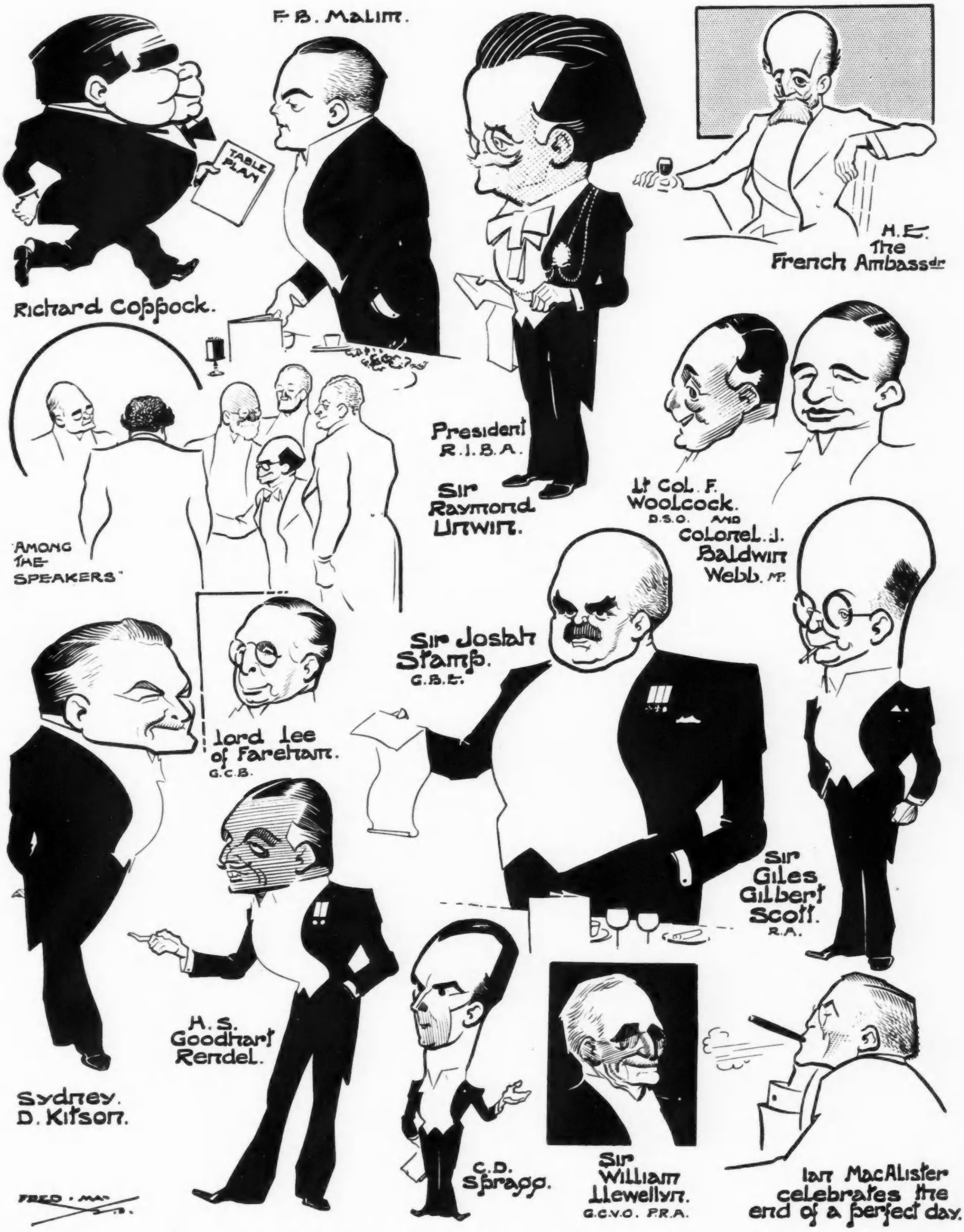
" THE R.I.B.A. AND ITS ALLIED SOCIETIES." Proposed by Sir Josiah Stamp, G.B.E., and responded to by Sir Raymond Unwin.

" THE GUESTS." Proposed by Mr. H. S. Goodhart-Rendel, F.R.I.B.A., and responded to by Messrs. F. B. Malim (Master of Wellington College) ; C. Gerald Eve, F.S.I. (President of the Chartered Surveyors' Institution) ; and Frank Pick, LL.B.

Sir Josiah Stamp recalled that he very nearly became an architect ; his first published contributions were on architecture, a profession which was closer to his heart than the one he now followed. However, as the head of a great railway, his contacts with the architectural profession were numerous, responsible and astonishingly wide. He also recalled that, at the risk of being thought a faddist, he had saved Stratford House, one of the few remaining sixteenth-century houses in the Birmingham area, from being butchered to make room for another score of railway trucks in an adjoining siding. It was done at some small economic cost to the corporation.

It was, however, another story when he was told that, in scheming out ideas for a great new terminal, on no account must he touch " the noble proportions of the great hall at Euston Station." This remark caused the most prolonged laughter of the evening. " In vain," he said, " are my struggles to invent any plan for a new Euston which will not involve its destruction. With the site of Carlton House Terrace and the Adelphi in front of me, I can hear the

AT THE R.I.B.A. ANNUAL DINNER


F. B. Malim.
TABLE PLAN
Richard Coppock.
H.E. The French Ambassdr
President R.I.B.A.
Sir Raymond Unwin.
"Among the speakers"
Lt Col. F. Woolcock. D.S.O. and Colonel J. Baldwin Webb. MP.
Sir Josiah Stamp. G.B.E.
lord lee of Fareham. G.C.B.
Sir Giles Gilbert Scott. R.A.
Sydney. D. Kitson.
H. S. Goodhart Rendel.
C.D. Spragg.
Sir William Llewellyn. G.C.V.O. P.R.A.
Ian MacAlister celebrates the end of a perfect day.
FRED · MAY 3.3.

On the facing page is a report of the Dinner, which was held on Friday last. The above sketches are by Fred May.

cries of those whose response to sentiment and æstheticism is greater than it is of my shareholders. How would you like to be in my place, with the responsibility for St. Pancras Hotel?"

He described the Hotel as being completely obsolete and hopeless for its purpose, worse even than useless for offices. "I understand," he continued, "that I am the last remaining man with mid-Victorian spirit who is sufficiently Philistine and bourgeois, and altogether out of the running to be an unashamed admirer of the Albert Memorial. Now I am responsible for St. Pancras Hotel, still described as one of the wonders of the world. Will it be vandalism to destroy it? How does it really stand in the eyes of the profession?"

Sir Raymond Unwin, in his opening remarks, said he much regretted the absence, through ill-health, of Mr. Maurice Webb, the Chairman of the Architects' Unemployment Committee. This Committee had accomplished much useful work. It had tried to make an opportunity out of disaster. A complete survey of London had been made such as had never been created before, which would prove a most valuable basis for dealing with such questions as reconstruction and housing. He was glad to say that the City Corporation had now decided to carry out the reconstruction and improvement of the Guildhall, which had been hanging fire since before the War. This work, he stated, would save at least £25,000 in unemployment relief alone. He thought it was good business to proceed with the erection of the new R.I.B.A. building, which would also save some £20,000 in unemployment relief. Referring to the Board of Architectural Education, Sir Raymond said the retirement of Professor C. H. Reilly would leave a much bigger job for them to do.

EXAMINATIONS

Following are the dates for the R.I.B.A. Examinations, together with the latest dates for applications:

Intermediate Examinations

May 26, 27, 29, 30 and June 1, 1933. (Applications by April 26, 1933.)

November 17, 18, 20, 21 and 23, 1933. (Applications by October 17, 1933.)

June 1, 2, 4, 5, and 7, 1934. (Applications by May 1, 1934.)

November 9, 10, 12, 13 and 15, 1934. (Applications by October 9, 1934.)

Final Examination

July 5, 6, 7, 8, 10, 11 and 13, 1933. (Applications by June 7, 1933.)

December 6, 7, 8, 9, 11, 12 and 14, 1933. (Applications by November 6, 1933.)

July 4, 5, 6, 7, 9, 10 and 12, 1934. (Applications by June 4, 1934.)

December 5, 6, 7, 8, 10, 11 and 13, 1934. (Applications by November 5, 1934.)

Special Examination

July 5, 6, 7, 8, 10 and 11, 1933. (Applications by June 7, 1933.)

December 6, 7, 8, 9, 11 and 12, 1933. (Applications by November 6, 1933.)

July 4, 5, 6, 7, 9 and 10, 1934. (Applications by June 4, 1934.)

December 5, 6, 7, 8, 10 and 11, 1934. (Applications by November 5, 1934.)

Special Examination in Design for Former Members of the Society of Architects

July 5, 6, 7, 8 and 10th, 1933. (Applications by June 7, 1933.)

December 6, 7, 8, 9 and 11, 1933. (Applications by November 6, 1933.)

July 4, 5, 6, 7 and 9, 1934. (Applications by June 4, 1934.)

December 5, 6, 7, 8 and 10, 1934. (Applications by November 5, 1934.)

Special Examination of Licentiates to Qualify as Fellows

October 30, 31, November 1, 2 and 3, 1933. (Applications by September 29, 1933.)

April 9, 10, 11, 12 and 13, 1934. (Applications by March 9, 1934.)

October 29, 30, 31, November 1 and 2, 1934. (Applications by September 28, 1934.)

Statutory Examination for District Surveyor and the Examination for Building Surveyor

May 3, 4 and 5, 1933. (Applications by April 12, 1933.)

October 11, 12 and 13, 1933. (Applications by September 20, 1933).

April 25, 26 and 27, 1934. (Applications by April 4, 1934.)

October 10, 11 and 12, 1934. (Applications by September 19, 1934.)

PUBLIC LECTURES

The first of a series of six public lectures on "How To Look at London," will be given at the Institute today, at 6 p.m., when Mr. H. S. Goodhart-Rendel will speak on "Piccadilly." The succeeding lectures, which will start at the same time every Wednesday, until April 12, are as follow:

March 15: "Where Londoners Live." Mr. A. S. G. Butler, F.R.I.B.A.

March 22: "Where Londoners Work." Mr. T. A. Darcy Braddell, F.R.I.B.A.

March 29: "Where Londoners Play." Mr. P. Morton Shand.

April 5: "Where Londoners Shop." Mr. F. E. Towndrow, A.R.I.B.A.

April 12: "What London Might Be." Mr. A. B. Knapp-Fisher, F.R.I.B.A.

The lectures are free, and no cards of admission are required.

INTERNATIONAL CONGRESS

The International Congress of Architects, which was to have been held in September this year in the United States of America, at Washington, has been deferred until improved conditions make it possible to ensure an adequate gathering of international representatives.

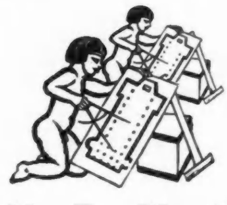
A further announcement will be made as soon as the Comité Permanent International des Architectes is able to arrange a suitable date.

Changes of Address

Mr. Thomas S. Cordiner, A.R.I.B.A., Chartered Architect, has transferred his office from 26, Midlothian Drive, Glasgow, S.1, to Blythswood Chambers, 261, West George Street, C.2 Telephone No. Central 8854.

Mr. S. Hodgson Doyle, A.R.I.B.A., A.I.STRUCT.E., Chartered Architect and Surveyor, has removed his offices to Town Hall Chambers, Victoria Square, Leeds. Telephone No.: Leeds 26902.

COMPETITION



NEWS

REPLANNING OF STOCKHOLM

The date for the submission of schemes in the International Competition for Replanning the Centre of Stockholm has been extended to March 15. Over 300 schemes have so far been received. Mr. G. L. Pepler, the Chief Town Planning Inspector of the Ministry of Health, who is one of the two foreign judges, will shortly be going over to Stockholm to help in assessing the plans.

Competitions Open

March 15.—Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Open to architects who have been in practice, either as individuals or as partners in a firm, for at least twelve months prior to March 1, 1933. Assessor: A Graham Henderson, F.R.I.B.A. Premiums: £200, £100 and £50. Applications for conditions of competition and plan of site should be made to William Shaw, Town Clerk, Burgh Chambers, Prestwick, Ayrshire, together with a deposit for £2 2s., on or before March 15 next. If the applicant decides not to enter, conditions, etc., must be returned before April 15. Designs to be submitted to the Town Clerk not later than 12 noon on May 8.

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First Prize, £50. Conditions etc., were published in *A.J.* for Feb. 1.

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street, W.1, from whom full conditions are obtainable. Premium: £100.

April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

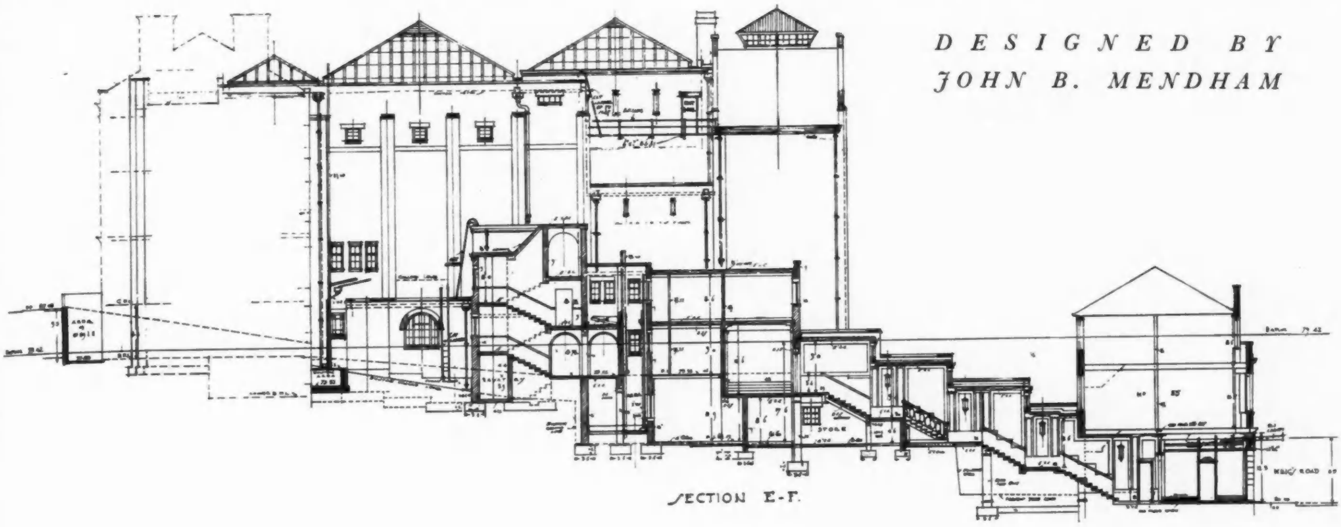
May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

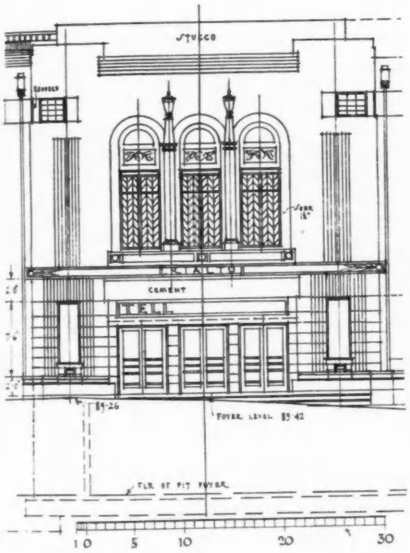
ON THE AIR

The next talk in the B.B.C. series "Other People's Houses" will be broadcast on Monday next, March 13, in the National Programme at 9.20 p.m. It is to be given by Mr. Percy Hurd and his subject will be "Rural Housing."

THE REGAL CINEMA, ST. LEONARD'S-ON-SEA

DESIGNED BY JOHN B. MENDHAM

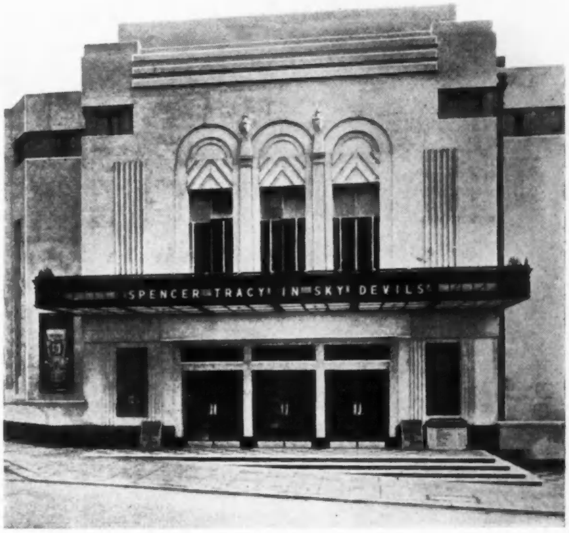

SECTION E-F

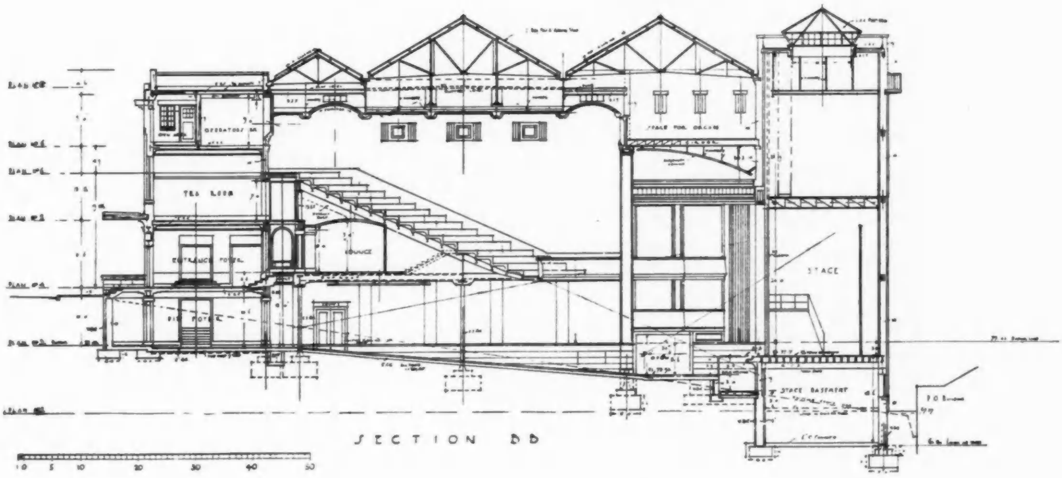

STUCCO
CEMENT
FOYER LEVEL 89·42
FLR OF PIT FOYER
10 5 10 20 30

The main entrance, in London Road, to the theatre of which plans are given in a supplement with this issue, is in stone, black marble and white cement, with varied bands of multi-coloured bricks.

The interior decorations are carried out mainly in silver and pale green. As will be seen from the views of the auditorium given overleaf, the tone duct from the organ comes out on the flat ceiling, with a grille the motifs of which are modelled on notes of music. The main lighting is from a large dome above the balcony; in addition, concealed lighting is employed at the sides and rear of the house, and also at the proscenium opening.

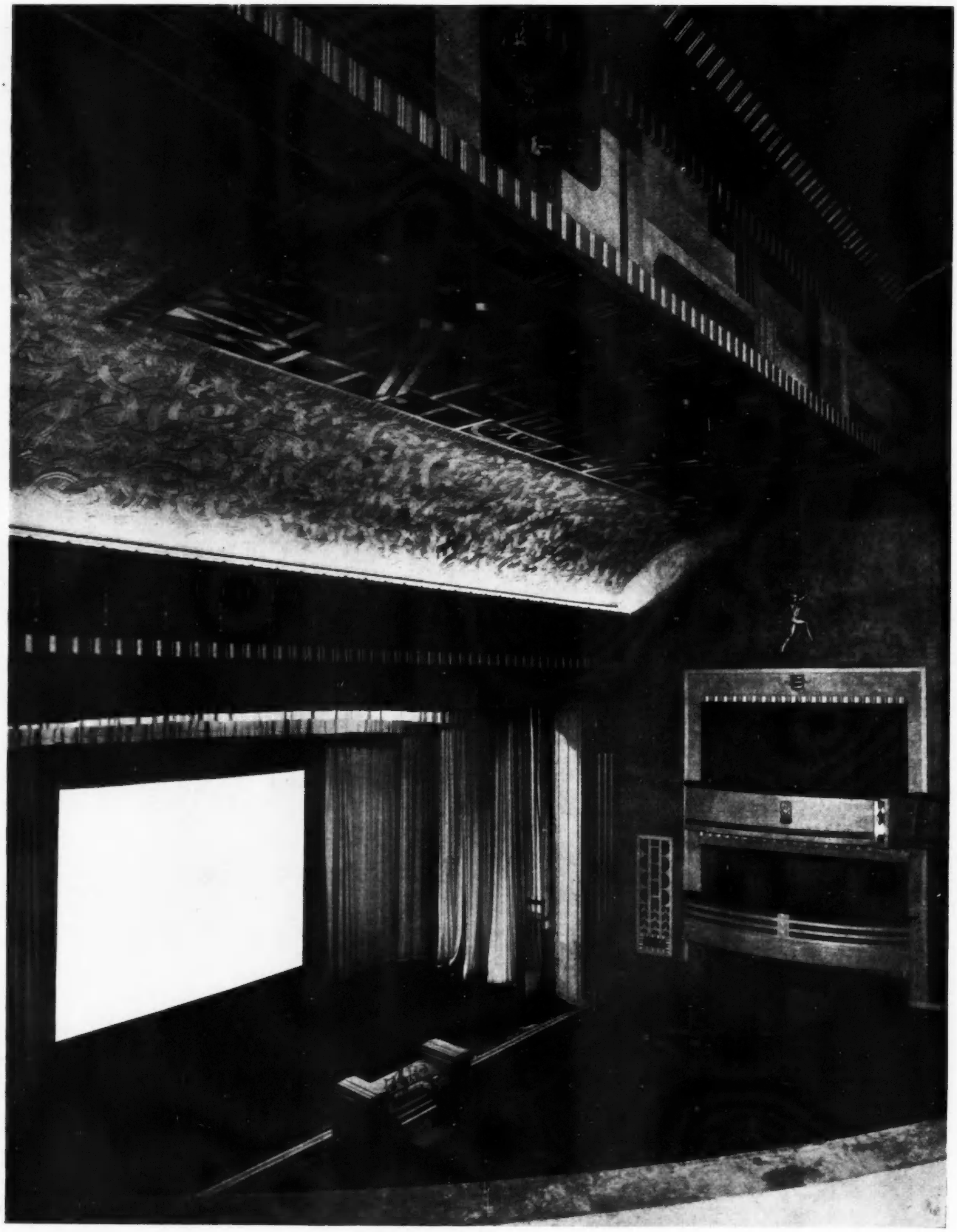
The stage is very fully equipped, and there are sixteen dressing rooms. The accommodation includes waiting space and a tea-lounge.


SPENCER TRACY IN SKY DEVILS

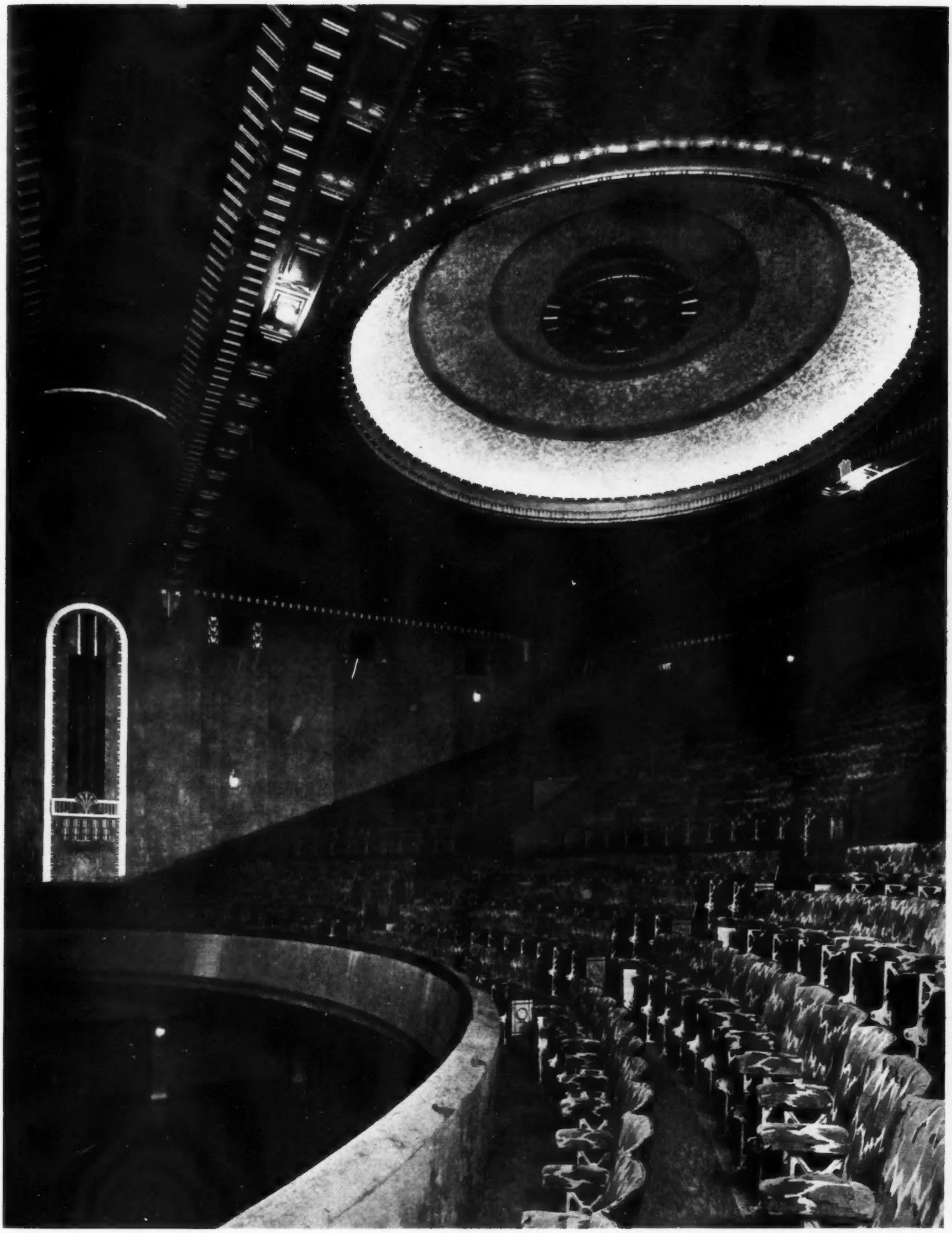

OPERATORS
TEA ROOM
ENTRANCE FOYER
LOUNGE
PIT FOYER
STAGE
STAGE BASEMENT
10 5 10 20 30 40 50

SECTION DD

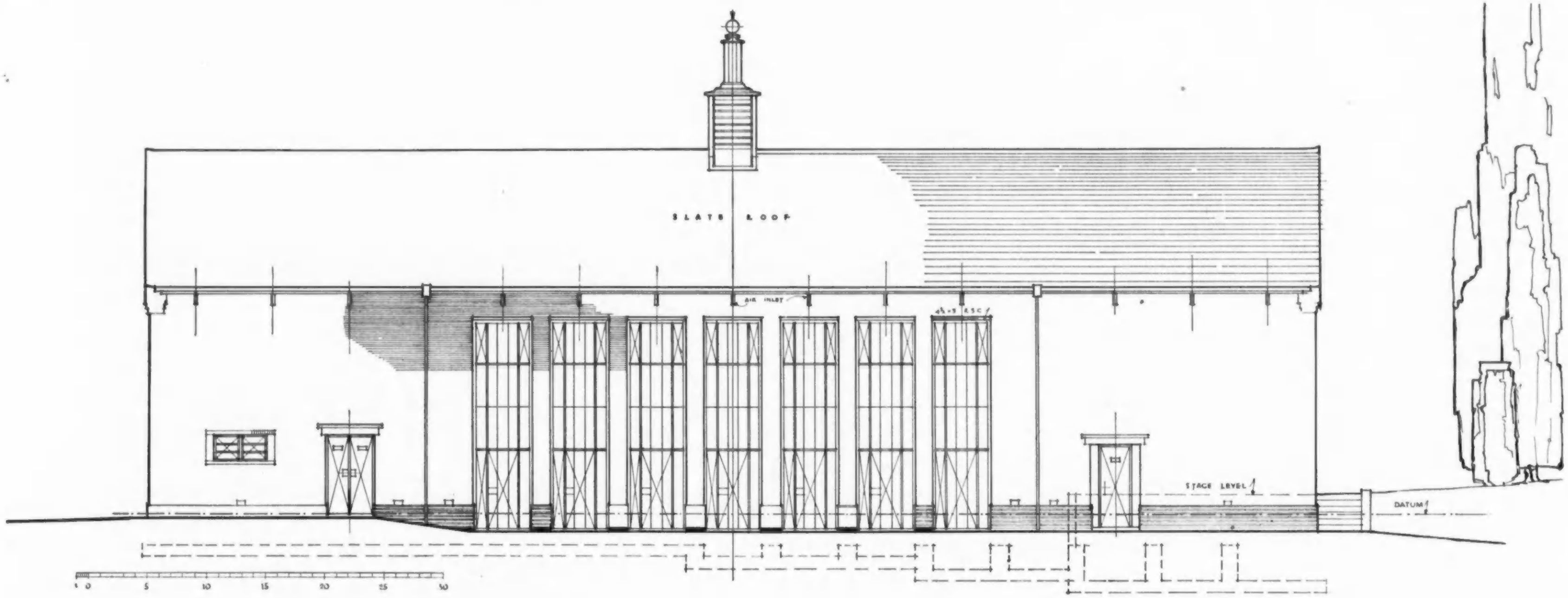
THE REGAL CINEMA THEATRE,



ST. LEONARDS-ON-SEA: BY JOHN B. MENDHAM



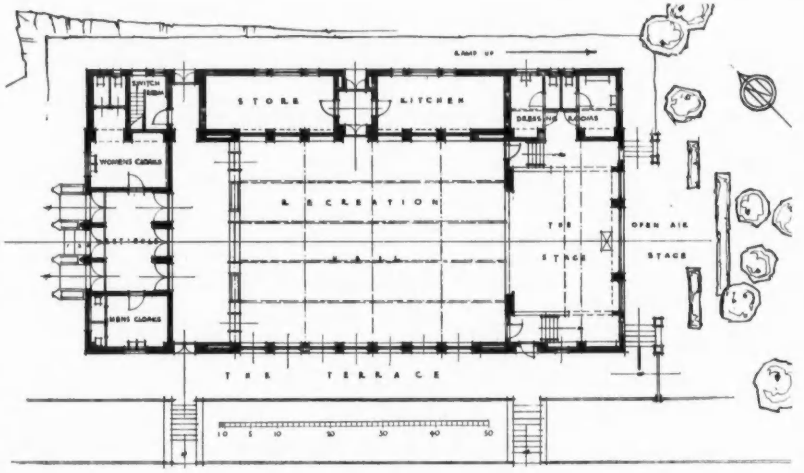
NEW HALL AT LIVERPOOL SANATORIUM : BY ALAN H. HOPE



Recent extensions to the Liverpool Sanatorium at Frodsham have included the erection of this new recreation hall to replace an army canteen which had been in use for many years. The building is isolated from the main block, and is designed to seat some 300 persons on one level, while, at the end of the hall opposite the stage, a raised platform, separated from the main hall by solid flower boxes, will accommodate a number of beds which can be wheeled up the ramp of the main entrance.

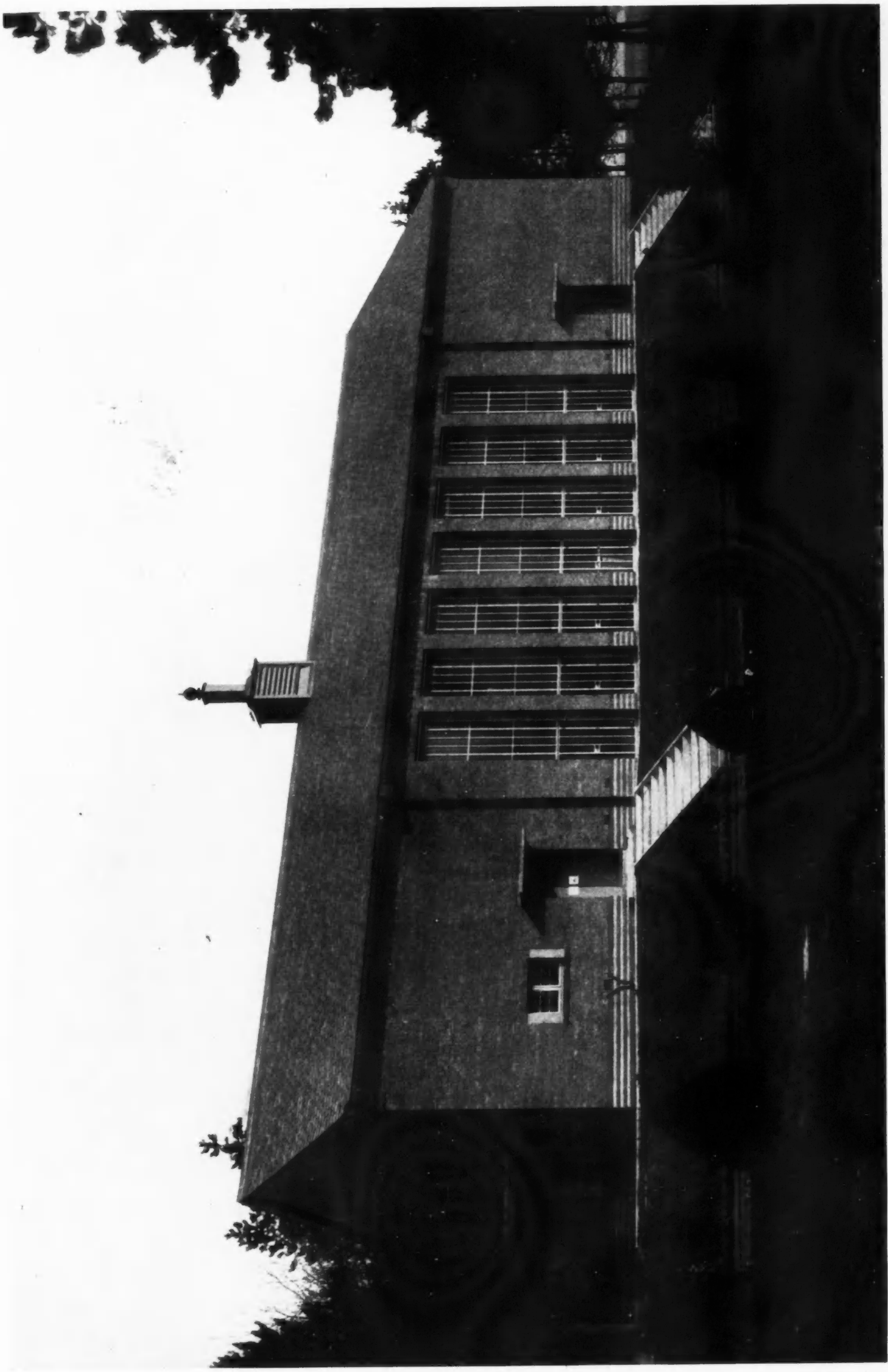
An unusual feature of the very open plan is the provision of an open-air stage beyond the roller shutters which form the back of the covered stage; this has for scenery luxuriant yew hedges and pine trees.

The facing bricks are pointed in a tone of yellow brown down to the horizontal bands of the plinth, where they alternate with courses of white cement. The large window arches are treated frankly, with the brick coursing carried unbroken over a steel channel lintel, painted turquoise blue.



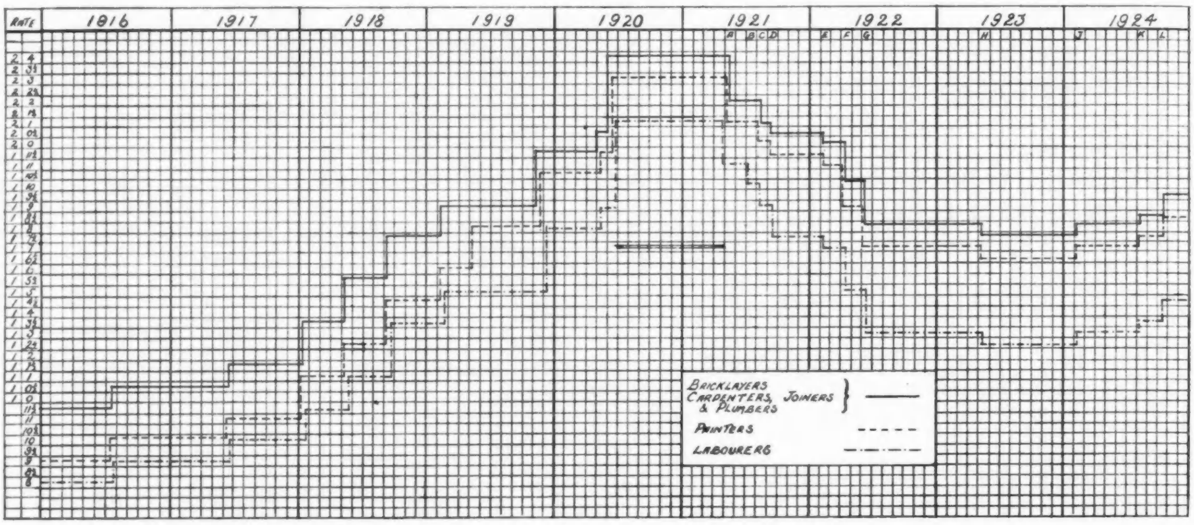
The hall is lighted on one side by a series of windows, eighteen feet high, opening at the bottom through glazed doors on to a wide terrace and giving a view of the main lawn of the hospital group, situated high above the Cheshire plain.

The artificial lighting and heating are both by electricity: there are panel lights in the flat ceiling and thermostatically-controlled tubular heaters at floor level, with specially designed convectors in some of the piers. The shape of the ceiling is designed to enable a current of air to pass, from outside, through brick ventilators over the windows, and to be directed by baffles through the ventilating turret in the roof. The vitiated air from the hall is thus drawn out through horizontal grids in the ceiling, ensuring the constantly clear atmosphere so necessary in the treatment of pulmonary tuberculosis.



Glazed doors in the deep windows open on to the terrace above the main hospital lawn.

CHART SHOWING BUILDING TRADES RATES OF



The above chart, showing monthly wage variations between 1916 and the present time, was prepared for their own information by the London firm of contractors, Messrs. E. A. Roome and Co., Ltd., by whose courtesy it is reproduced. The rates per hour are given at either margin, and the notes applicable to the letters, appearing at intervals in the top line, are as follows: A:

LETTERS
FROM
READERS

G. REAVELL, F.R.I.B.A.
S. HODGSON DOYLE, A.R.I.B.A.
STANLEY TOWSE, F.R.I.B.A.
S. D. DICKINSON
R. ST. JOHN COOPER

Control of Elevations

SIR,—Why is Astragal so deeply shocked at the proposal of the Oxford Corporation to constitute the magisterial bench, and not a professional tribunal, the board of appeal in cases of dispute over elevations?

Does he realize that in the vast majority of cases the matter is settled by agreement, and it is only once in a blue moon that elevations are referred to a board of appeal, however constituted?

Under nearly all legislation concerning elevation control, the local authority have to show that the elevations to which they take exception "seriously disfigure the amenities of the street." These words impose a pretty severe restriction on their powers, and confine the elevations against which they are prepared to fight to two types—a capable design in the wrong place and a hopelessly incapable design anywhere.

In the former type, the fact that his building had been turned down by a tribunal of professional men rather than by a magisterial bench would hardly provide sufficient balm to heal the architect's wounded pride. He might even be justified in assuming that it was the divergent views on traditionalism and modernism of Mr. X, F.R.I.B.A., the architect member of the tribunal and himself which largely accounted for the verdict.

The proud author of the hopelessly incapable design would either consider himself the equal of any F.R.I.B.A., or else realize that as a "practical man" he knew much better than any architect; and really there was no accounting for taste. In neither case is he likely to look any more kindly on the verdict of Mr. X., F.R.I.B.A. and his associates than on that of the magistrates, whereas the latter do possess the advantage of being vested with all the majesty of the law and the constitution.

Elevation control is still in its infancy and depends for its maturity upon the support of public opinion. That support will not be forthcoming if there is any suspicion of professional dictatorship, and I suggest that the general public will be more willing to accept with good grace the verdict of the magistrates than that of a professional tribunal.

Quite apart from that, the appeal stage is too late for the architectural profession to express its views, for there it only deals with those elevations of which the local authority have already disapproved, and does not have the opportunity of censoring those which have received official sanction. This could be prevented if all elevations were referred to an advisory committee of architects before being considered by the local authority. Such a committee should be part and parcel of the legal machinery.

Astragal probably has in mind the case of the capable design which is considered to be unsuitable to its surroundings. I think that the magistrates, supported by the evidence of the advisory committee of architects, would be able to reach a right conclusion, but to safeguard architectural interests further appeal should lie to a central court presided over by the President of the R.I.B.A.

ORONTES

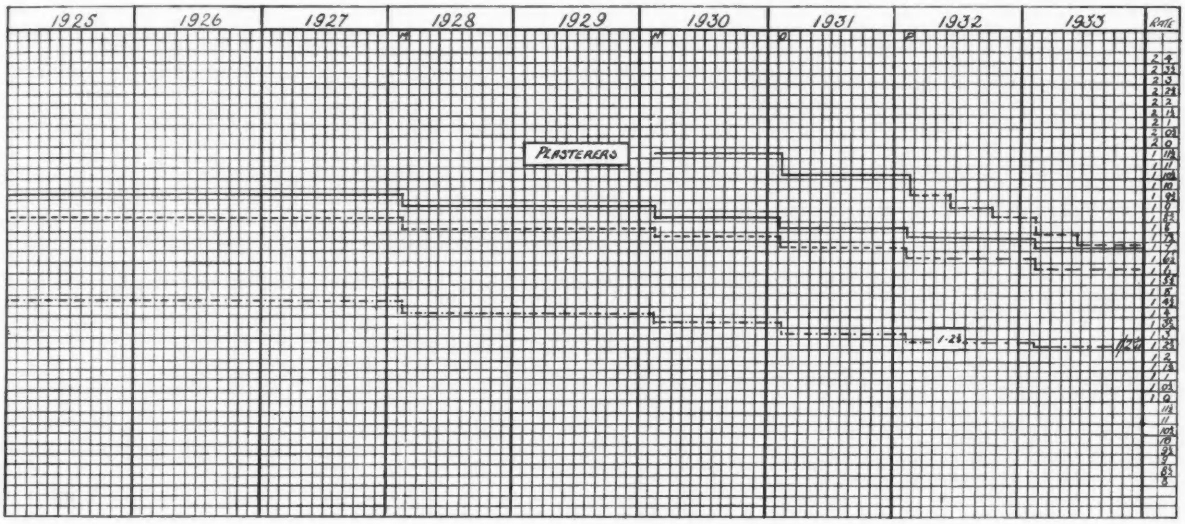
[*Orontes is connected with the Oxford Corporation.*—ED. *A.J.*]

Sheep Bones for Fixing Slates

SIR,—Sheep *shanks*, please!

With reference to the letter from Mr. Percy Thomas, I may say that the traditional roofing in Northumberland, away from the sea and before the days of modern transport, was to lay several courses of sandstone flags—locally known as grey slates—covering at least the thickness of the wall. From that point to the ridge was frequently still grey slates but more generally pantiles. The grey slates were invariably hung with sheep-shanks. I have seen many hundreds. It was very logical. Grey slates and pantiles were local products as were the sheep-shanks, which had no

WAGES VARIATIONS FOR LONDON, 1916-1933



16 May, 1921 ; B : 1 July, 1921 ; C : 1 August, 1921 ; D : 1 September, 1921 ; E : 1 February, 1922 ; F : 1 April, 1922 ; G : 1 June, 1922 ; H : 26 May, 1923 ; J : 1 February, 1924 ; K : 25 August, 1924 ; L : 25 October, 1924 ; M : 1 February, 1928 ; N : 1 February, 1930 ; O : 1 February, 1931 ; P : 1 February, 1932.

other value and could be obtained in limitless quantities. I may add that they were practically everlasting and are quite sound even now when we strip an old roof.

G. REAVELL

Changes of Address

SIR,—I find many manufacturers are slow to note changes of address. May I suggest a short article upon the wisdom of keeping records of changes of address, with a suggestion that firms should make one of their staff responsible for noting such changes as they appear in the trade and professional journals. It is evident many rely upon directories (often old editions) and cannot be as up to date as they might if they followed the procedure outlined above.

S. HODGSON DOYLE

Information Sheets

SIR,—I thoroughly agree with your correspondents' encomiums upon the Information Sheets you are now issuing. I am particularly interested in the suggestions that the sheets should be perforated and that a folder should be supplied.

To merit the everlasting gratitude of your subscribers, I suggest you issue a presentation pound of tea at the end of this series of plates, together with the punched holes and folder.

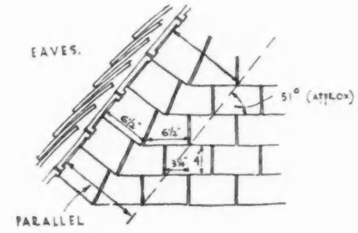
ANXIOUS

SIR,—With reference to your correspondent's enquiry about covers for Information Sheets, I find Messrs. Straker's spring-back folders at 2s. each answer admirably.

STANLEY TOWSE

The Winchester Cut

SIR,—With reference to the subject of "The Winchester Cut," by your correspondents in your issue for February 15, I shall be pleased to learn if this method is confined to a pitch of 51 degrees approximate (or the angle made by the jointing of the tiles as shown in the enclosed sketch).



Any deviation from this pitch appears to involve complicated cutting and apparently varying widths of tiles next the spandrel shaped eaves tile.

STUDENT

Economy

SIR,—Why all this despair because economy is the order of the day? Did not the people who put the existing Government in power expect a policy such as we are getting?

In every country concerned the mass of the people are to blame for our present trouble, for if only people had political sense we should not be ruled by the most reactionary governments possible.

What on earth is the use of talking of progress and planning on a large scale, when we have individuals in power in every country that is suffering, who have been proved incompetent in the past?

S. D. DICKINSON

[*We do not agree with our correspondent. The National Government is in our opinion full of able men. The trouble is they are committed to a policy of economy which few of them really believe in.*—ED. *A.J.*]

The Roads and Economy

SIR,—I was very much interested to read an extract from THE ARCHITECTS' JOURNAL in *The Daily Express* for February 22. For the last few months I have been doing my best to urge the abolition of what you aptly describe as "half-measures" and "policies of hesitation." I have laid great stress upon the foolishness and short-sightedness of restricting expenditure upon one public service whose importance to the community at large is growing from day to day—namely, the roads.

The road system of this country now totals some 177,000 miles. Before the crisis in 1931 the annual expenditure upon the roads was approximately £60,000,000. This sum was raised by means of motor and petrol taxes. Of recent years the Road Fund has lost something of its original function. A large proportion of its revenue has been diverted to the general purposes of the Exchequer instead of being allocated to the construction, maintenance, and repair of the roads. The public is, of course, powerless to interfere with this arbitrary transference, but the road-using public has every reason to complain that the money it contributes for the purpose of the roads is not being used for that purpose.

The panic cry of "Economy" has already done damage in many quarters; it is beginning to ruin the roads.

The present policy of economy-at-all-costs is uneconomic and requires an example such as that set by *The Daily Express* and supported by your own JOURNAL.

R. ST. JOHN COOPER

[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]

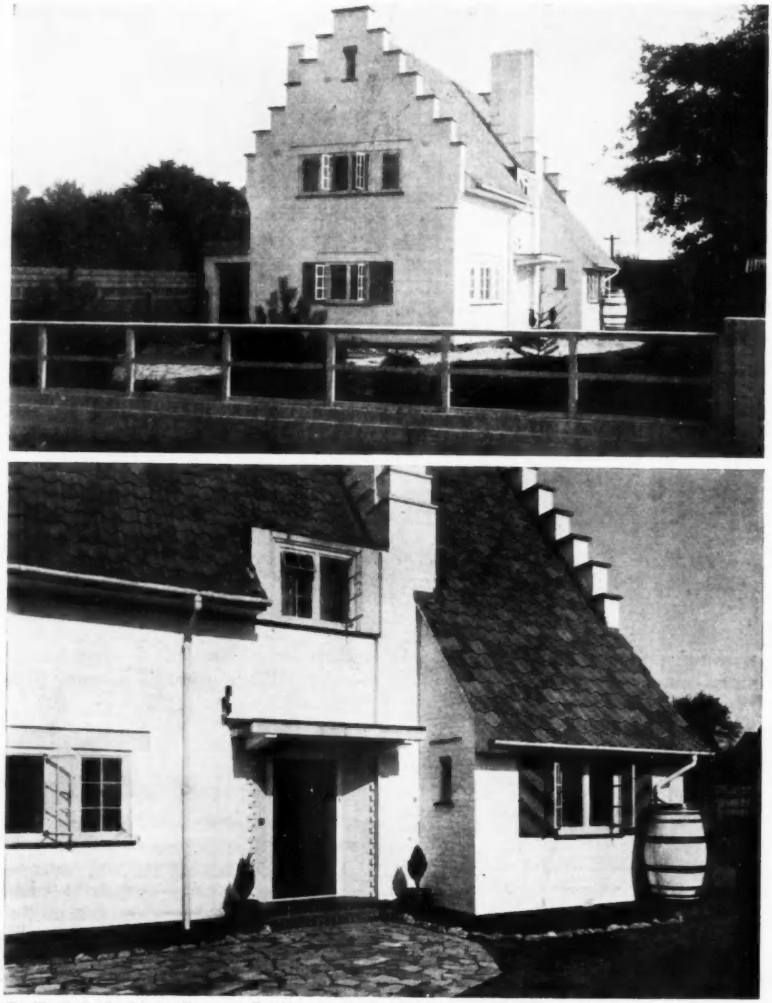
Official Architecture

A memorandum has been submitted by the Edinburgh Architectural Association to the Edinburgh Town Council suggesting that some of the work of the City Architect's Department might be deputed to outside architects.

Northern Polytechnic

The Annual Speech Night of the Department of Architecture, Surveying and Building of the above school will be held on Thursday, April 6, commencing at 7 p.m. The Right Hon. the Earl of Crawford and Balcarres, K.T., P.C., is to distribute the prizes.

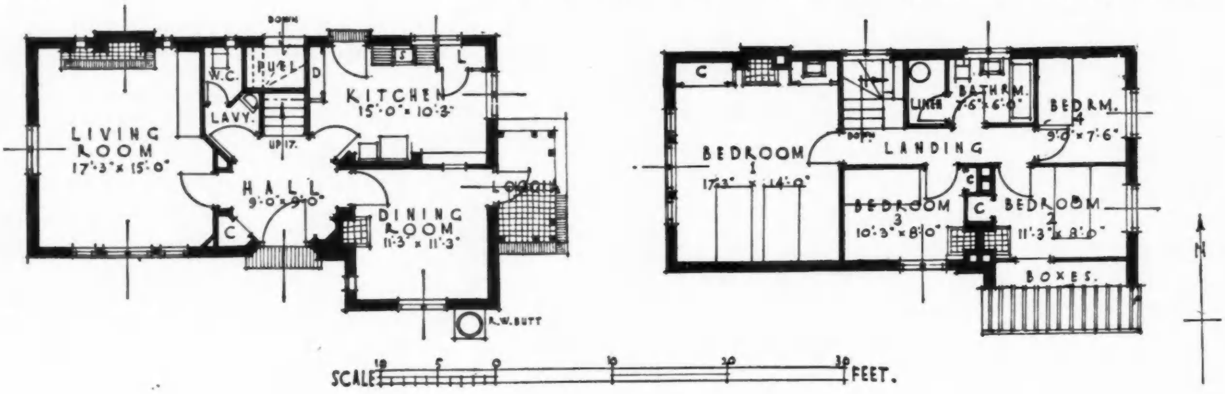
A HOUSE AT LOWESTOFT



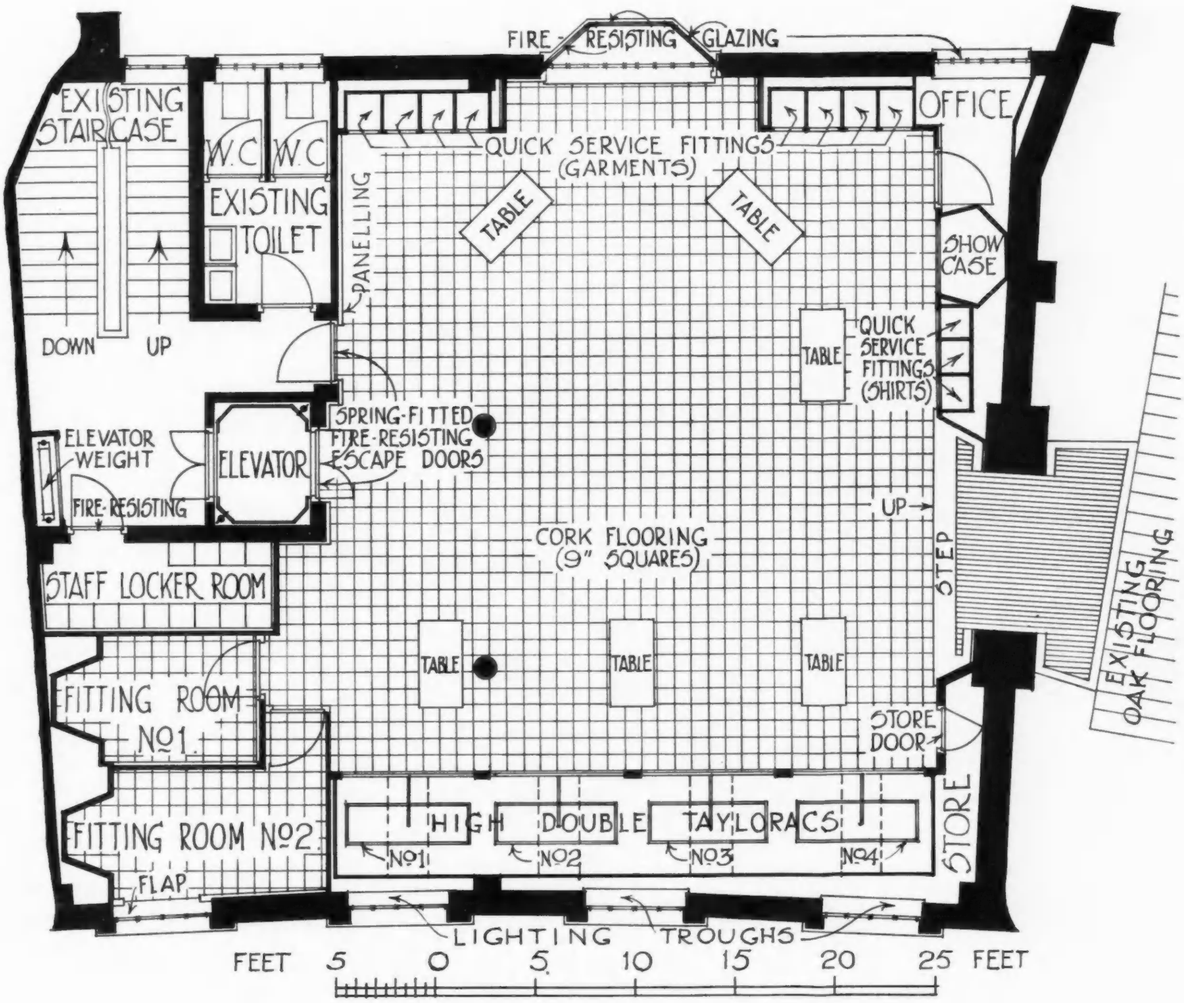
DESIGNED BY ALAN H. DEVEREUX

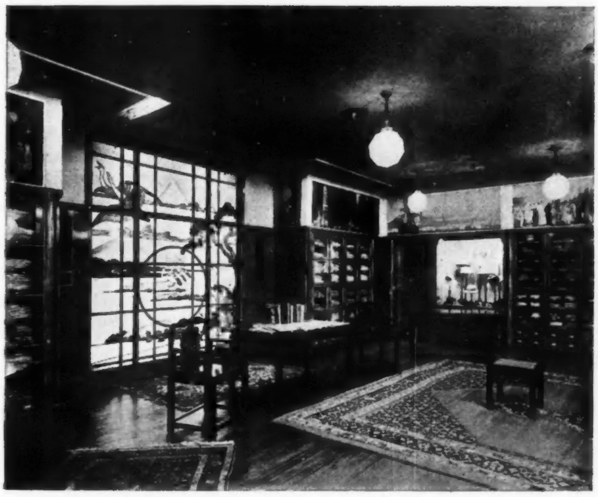
The plot of The White House, Corton Road, Lowestoft, runs east to west, and the house is placed close to the north boundary, with its narrow end towards the road, so as to allow a long elevation to the south with a large area of garden in front. The front door is on the south, between living room and dining room, and is approached by a curved drive. The walls are of 11 ins. cavity brickwork, painted externally in white, the roof being of apple-green glazed pantiles. Shutters and front door are painted blue and green and window sills are black.

The octagonal hall is the feature of the interior. The staircase is directly opposite the entrance. The doors throughout are of the flush type, and all woodwork, including the wide staircase, is toned.


DOWN
W.C.
FUEL
D
S
L
KITCHEN 15'-0" × 10'-3"
LAVY.
LIVING ROOM 17'-3" × 15'-0"
UP 17.
HALL 9'-0" × 9'-0"
LOGGIA
C
DINING ROOM 11'-3" × 11'-3"
R.W. BUTT
C
LINEN
BATHRM. 7'-6" × 6'-0"
BEDRM. 4 9'-0" × 7'-6"
DOWN
LANDING
BEDROOM 1 17'-3" × 14'-0"
C
C
BEDROOM 3 10'-3" × 8'-0"
BEDROOM 2 11'-3" × 8'-0"
BOXES.
N
SCALE 10 5 0 10 20 30 FEET.

RED LACQUER SHOWROOM AT AUSTIN REED'S


FIRE-RESISTING GLAZING
EXISTING STAIRCASE
DOWN
UP
W.C
W.C
EXISTING TOILET
PANELLING
QUICK SERVICE FITTINGS (GARMENTS)
TABLE
TABLE
OFFICE
SHOW CASE
QUICK SERVICE FITTINGS (SHIRTS)
TABLE
ELEVATOR WEIGHT
ELEVATOR
FIRE-RESISTING
SPRING-FITTED FIRE-RESISTING ESCAPE DOORS
UP
CORK FLOORING (9" SQUARES)
STEP
EXISTING OAK FLOORING
STAFF LOCKER ROOM
TABLE
TABLE
TABLE
FITTING ROOM No1
STORE DOOR
FITTING ROOM No2
HIGH DOUBLE TAYLORACS
No1
No2
No3
No4
STORE
FLAP
LIGHTING TROUGHS
FEET 5 0 5 10 15 20 25 FEET



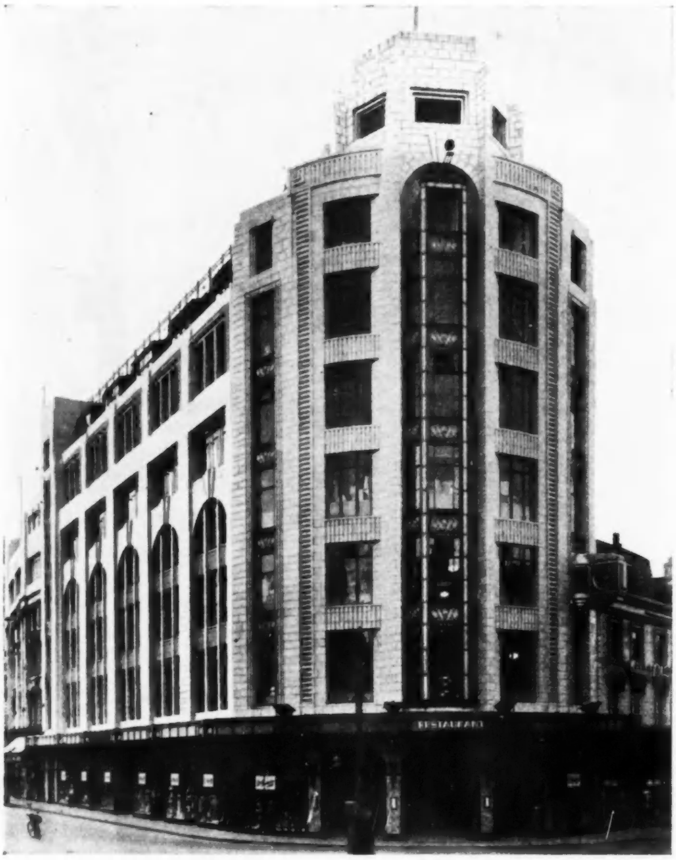
D E S I G N E D B Y

P. J. W E S T W O O D

This department for the display and sale of travel and flying kit was designed during the recent extension to Messrs. Austin Reed's West-end headquarters, embodying Nos. 101 and 103 Regent Street, W. All the internal woodwork was finished in red lacquer with appropriate designs and inlaid small real antique panels.

The decoration of the frieze is a feature of the room. This takes the form of a series of oil paintings depicting scenes and incidents of a voyage round the world, painted by Fred Taylor, R.I., who also designed the cloisonné window, seen in the accompanying photograph, and the ceiling decoration.

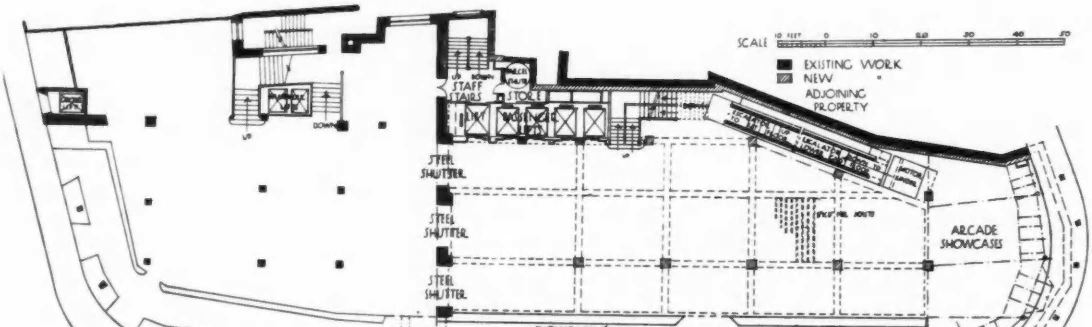
STORE AT BOURNEMOUTH, HANTS


RESTAURANT

DESIGNED BY
NORTH, ROBIN
AND WILSDON

Of the premises for Messrs. J. E. Beale, Ltd., the south block was built by the same architects in 1912, and raised by them two floors in 1930. The photograph shows the recently-completed northerly end, at the corner of Winton and Old Christchurch Roads, providing the main entrance, canopy and arcades—a large display area under cover. Its seven stories in terra-cotta, to harmonize with the older work, replace a former three-story building. The terminal feature is an octagonal tower with a metal bay-window running through six floors; the chiming clock, seen on the right, has revolving figures and is illuminated at night.

There is a wide marble staircase from the basement to the fourth floor, with its restaurant; escalators are also installed, down to the basement, and up to the first floor. On the fifth and sixth floors are kitchens, canteen, staff-rooms and offices.


SCALE
10 FEET
0
10
20
30
40
50
EXISTING WORK
NEW "
ADJOINING PROPERTY
UP
DOWN
STAFF STAIRS
STORE
LIFT
PASSENGER LIFTS
ESCALATOR TO 1ST FLOOR
ESCALATOR DOWN TO LOWER GROUND FLOOR
STEEL SHUTTER
STEEL SHUTTER
STEEL SHUTTER
ARCADE SHOWCASES
SHOWCASES
ARCADE
SHOWCASES
GOODS LIFT REMOVED
HINTON ROAD
CURB LINE

THE NATIONAL GRID

"The Electric Grid Supply and its Purpose" was the subject of a paper read by Sir Andrew Duncan, M.A., at a meeting of the Architectural Association, held on Monday of last week. Extracts from the paper are printed below.

The establishment of the grid system may shortly be described as a means of rationalizing the production of electricity for the purposes of public supply, and its transmission to the various sources of public supply. Whatever, therefore, were the limitations or hesitations of earlier legislation in electrical matters, Parliament did in the Electricity (Supply) Act, which became law in 1926, deliberately plan for the production of electricity on a comprehensive national scale. Remember, however, that this planning has to be superimposed upon, rather than immediately substituted for, the existing system. It would be one thing for you to town-plan a New London on virgin soil and quite another to transform London by gradually dovetailing the existing scheme of things into a new.

For ease of management and operation, as well as of construction, the country has been divided into 10 areas; schemes have been developed in all these areas—with the exception of North Scotland. Although the Grid will be operated in areas, all the areas are themselves interconnected and so dovetail into each other as to form in every sense a national grid. The tariffs for each area, too, will vary within such narrow limits from the beginning, as to be capable of ultimately linking up to a full degree of uniformity. Four broad direct results will follow from the new scheme of things :

1 : The average cost of producing electricity for the country as a whole will be substantially reduced. Under the system of independent generation of the past it has been necessary for each undertaking to carry substantial surplus plant in reserve for breakdowns. When the grid scheme is in full operation it will be possible to reduce the proportion of spare plant so considerably that the resultant saving of capital will, during the next 10 years, be in excess of the whole capital cost of the grid.

2 : The bulk of the distributing authorities will be freed not only from the problems of generation, but also from the large capital cost involved in maintaining their own plant, and will, for the future, be free to devote their whole energies to the intensive development of their distribution system, their sales and their services. This process has in fact been operating during the last few years, as the grid has been developing. I mentioned at the outset that the production of electricity in 1926 was 7,000,000,000 units. By 1932 it has grown, in spite of these years of depression, to 12,000,000,000 units.

As the grid policy comes into full operation and as trade and business improve, the rate of growth will reach surprising figures.

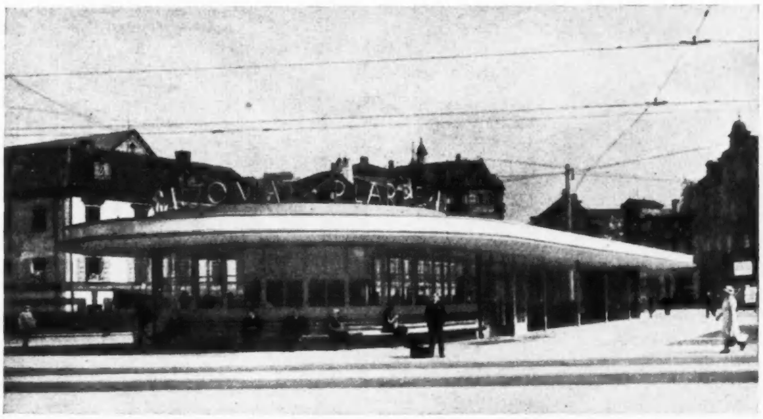
3 : Electricity will become much more generally and much more quickly available in areas not already developed, and the undertakings developing these territories will be able to buy in bulk from the grid at prices which compare favourably with cost at large generating stations. The cost of regional transmission for distribution will be reduced, too, as a result of the additional grid points at which supply can be taken. Already a considerable area of rural and agricultural territory has been opened up by receiving temporary supplies from accelerated portions of the grid, pending completion of our scheme.

Industry will be afforded the assurance of a reliable public electrical service in whatever part of the country it may locate itself. Already we have been able, in co-operation with the supply undertakings, to secure large industrial loads for which the local undertaking could not, on its own, have become responsible. The flexibility which the system affords will prove to be of incalculable advantage as trade revives and industrial load grows again.

The step which Parliament took in 1926 was taken, not out of interest and regard for the electrical industry, but out of regard for modern conceptions of the right both of industry and the public to enjoy the advantages of the services which electricity can give. Whatever Britain's relative position *was* electrically, she is now shaping for world leadership, and in the grid the country will have a unique asset in electrical development. The uses of electricity have been greatly enlarged and are rapidly enlarging still further, and the public is becoming electrically minded. Our electrical supply industry realizes that it must devote its whole energy now to the salesmanship of its services and to the satisfaction both of industrial and public demand. In your profession you belong to the creative arts, and in every sphere of domestic and public electrical use there is need not only for your co-operation, but likewise for your guidance and direction. The electrical engineer and salesman cannot be left to his own resources. The public advantage will be greatly served by the contribution which you as a profession can make to the development of the service as an integral part of all modern life and activity.

Slum Clearance in Dublin

The Dublin Corporation are contemplating a large scheme of slum clearance on the north side of the city, at an estimated cost of £2,000,000.



Tram Shelter and Automatic Restaurant, Nürnberg. By Professor Jansen. A modern building for a modern purpose set in an old town square, with complete success. Compare the " Tudor " roadside restaurants, shelters and pump stations to be seen in England.

THE MODERNIST *IN* LEEDS

[By SERGE CHERMAYEFF]

The article below is summarized from the author's lecture to the West Yorkshire Society of Architects, delivered at the College of Arts, Leeds, on Thursday last. Its full title was " The Modern Approach to Architecture and its Equipment."

THE last year has been so eventful, economically, politically, and architecturally, that a great many ideas which appeared revolutionary are now established as progressive. Had this tremendous change not taken place the word " modern " would have retained only its modish significance. Today it is no longer a millinery tag to be regarded with suspicion by the righteous.

There was, a year ago, a general belief that modern architects and designers despised old things and wished to destroy them. The truth has emerged, which proves exactly the opposite case. Modern designers love and understand old things, and realize that their particular qualities evolved from and flourished under different conditions. What the contemporary designers dislike is the parody and caricature of old things. To quote Mr. Barton :

> Our modern architects, sculptors, painters and designers generally are often described as " breaking away from tradition." It would be far more accurate to say that they are trying to get back to tradition. *Our newest artists know most about the oldest arts.*

The Carlton House Terrace incident not only established this as a real fact, but has led from the particular instance to the general concept that responsibilities towards what is old are involved in modern planning and building.

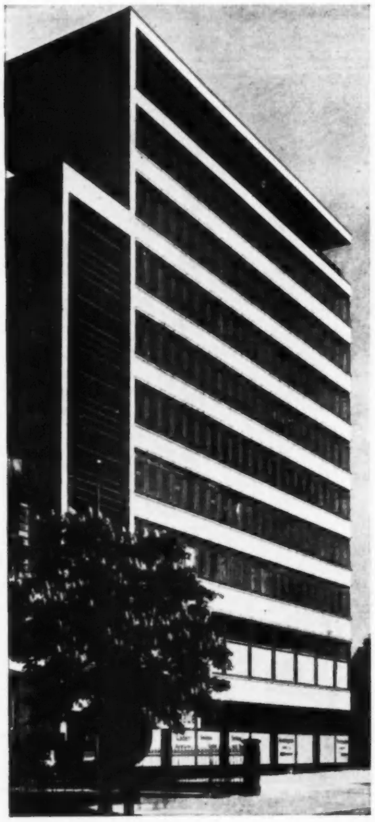
The twentieth century does not claim a moral superiority over its predecessors. On the contrary, we realize that it is essential to live up to our predecessors' creative tradition. All things in their time have been modern.

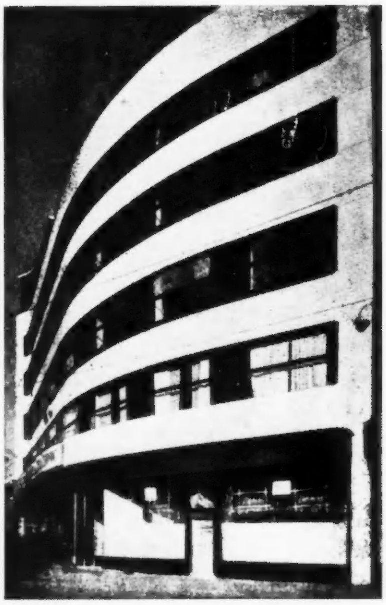
What does a modern point of view imply ?

In the course of a recent debate on the wireless, we learnt from the Chairman of the Slum Clearance Committee of the London County Council that non-parlour accommodation is being provided, which is utterly inadequate, and a bath to every three families, accessible from *outside*, in order to arrive at a so-called minimum rental, still too large.

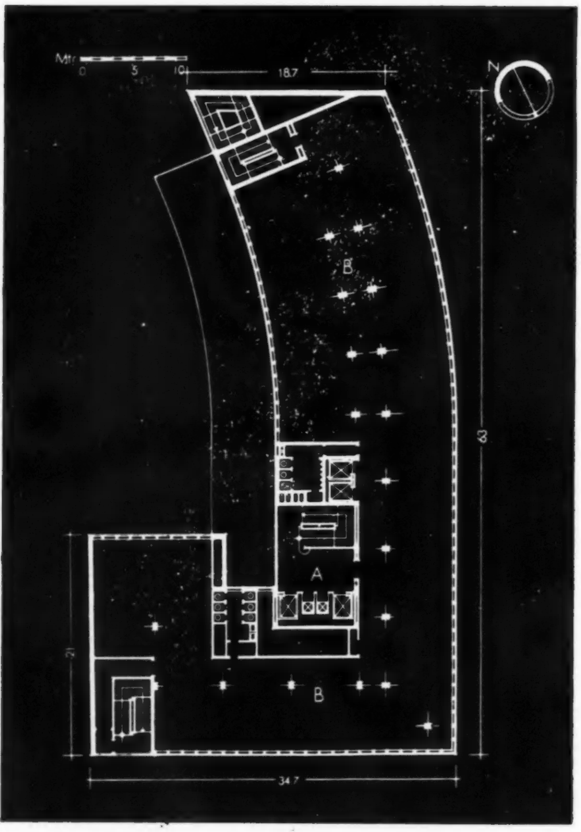
In fact, building *new slums for old !*

But, in view of the progress in education and hygiene, should not revisions be made in building laws ; economies be effected in planning, in constructional methods and materials available, to bring these living conditions up to date ? Plans have been put forward





Columbus House, Berlin (left and below). By Erich Mendelsohn. A new structure, the principles of which are readable, completely unaffected and spontaneous. It was designed to give the maximum possible economic subdivision of letting space unobstructed and uncompromised by stanchions or beams; and maximum windows:—i.e., interior economic flexibility. Compare this with the Telchow Building, Berlin (right), by Luckhardt and Anker. A refacing in the days of the "horizontal" fashion. The bands of white and blue glass between the windows totally contradict the outside steel-frame construction: a piece of "sham modern."



which make this possible within the specified cost, if building laws kept pace with science. Architecture can profit in this respect from the example of transport. If similar obtuseness and obsoleteness existed in the latter, the car would still be a luxury for the few. Again, decoration and furnishing are not in separate watertight compartments which can be dealt with separately from building proper.

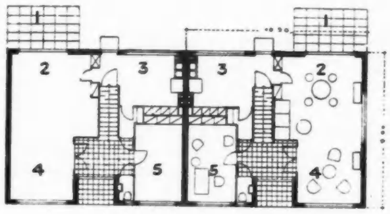
On the contrary, they are part and parcel of architecture. They are interior equipment.

A building, whether it is an office, a theatre, a private house, or a school, is like an organism. Each component part must bear a direct relation to every other part and the whole, and, like a living organism, there must be a harmonious working together of all the separate parts. Obviously this harmony is demanded as much by utilitarian objects as by purely decorative, painting and sculpture, for they are continuously seen together.

The structural revolution has made it possible to hang thin curtains of fabric over a steel skeleton. The walls, which formerly enclosed and supported the building, are no longer the dominating part of the structure. Buildings used to be like shell-fish, with all the hard, resisting structure carried externally. Now buildings are like vertebrates, with an internal skeleton, over which is stretched a skin, the wall. The internal organs have changed accordingly.

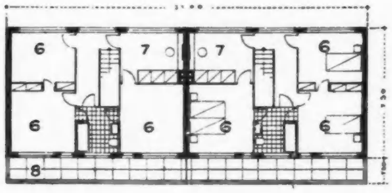
However cursorily we examine the more familiar building materials of our machine age, such as fibre boards, plywoods, sheet glass, composition, cork and rubber, we immediately realize that they have not the limitations of equivalent products of other times. Supported as they are by spans in steel and concrete, they require a totally different technique. The forms resulting from these new structural materials, the textures and surfaces, are simpler, broader, and offer a greater variety of interpretation. We have large unbroken expanses of wall, of ceiling, of window, of floor; greater airiness, spaciousness, lightness, cleanliness and warmth.

You have no doubt at some time or another seen a structure or entered an apartment, which has pleased you immediately; which has given you, by its general atmosphere, an invitation to enjoy—a building or an object which has, in fact, satisfied without trying to amuse or startle you; which has not demanded any effort on your part to examine in detail. If you have come across such a thing it would be valuable to examine here the qualities which went to its making. I believe that you will find these qualities summarized in simplicity and directness and appro-



Key to the accommodation :

1, terrace ; 2, dining room ; 3, kitchen ; 4, sitting room ; 5, study ; 6, bedroom ; 7, dressing room ; 8, balcony.



A One-family House in Würzburg. By Walter Loos and Peter Feile. Here compact and direct planning makes for maximum use of the available space without any restrictions imposed by fireplaces or quaintnesses, and gives maximum fresh air and sunbathing facilities to all rooms.

priateness. You can say of such satisfactory things that they are without affectation and self-consciousness.

These effects are not obtained through haphazard effort or absence of scholarly erudition. Inevitably they are the result of the training and culture of the designer concerned, and his attitude. Their apparent simplicity is misleading, for this is arrived at through the power of restraint. It is far easier to arrive at an " effect through elaboration " than to present the logical minimum in a manner to satisfy.

It is the function of the trained designer to be able to visualize an object in direct relation to a whole building and its equipment, and all its complexities. The designer, no matter what his speciality, must fulfil all the wider demands made upon him. Apart from his mere technique, he must be a cultured man. It would be useful here to define the term " cultured " and to quote Professor McMurray :

> We still regard scholarship, and classical scholarship at that, as our main instrument of cultural education. We still, to a large extent, even if to a decreasing extent (thanks to the help of such men as Professor Reilly) look upon the knowledge of Latin and Greek (Architecture of the Orders) as the true key to culture.
>
> To anyone who has an eye to the cultural needs of the modern world, this is little short of tragedy. It is quite possible to be learned and to be stupid !

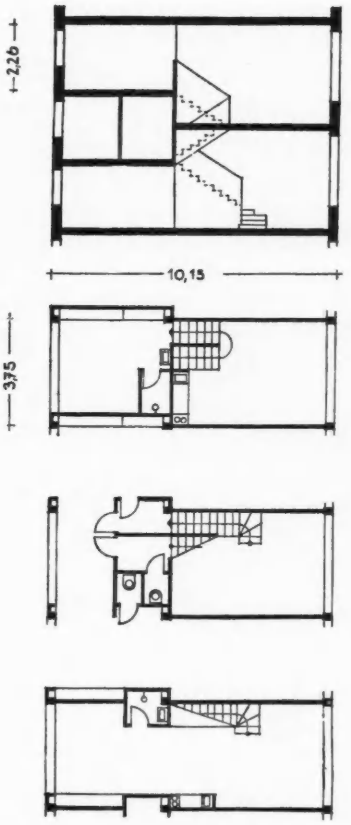
The cultured designer has an important function of selection. It is this ability to select rightly which is the quality of taste in the artist. There is no problem, however large or small, which has not, as a rule, more than one solution. A choice has to be made. The selector understands that all things are created by man for himself and not for themselves.

I will submit, for what they are worth, one or two principles in design :

> Successful solutions of all problems are arrived at through the process of solving, and not through any preconceived idea of what the finished structure should look like.
>
> Fitness to purpose. Materials are for a purpose and not for an effect. For example, it is architectural nonsense for buildings in brick to ape concrete in their layout and finish.
>
> Form, texture and colour, are *of* a thing and not *on* it, as the above example also illustrates.
>
> Meaningless decoration, as such, is desecration. Buildings and things are like ourselves. They have bodies and skins. Unlike our self-conscious selves, they require no clothes.

We are familiar with festoons of plaster vegetables which crawl over the walls of buildings, inside and out. We have all seen furniture with a Chinese landscape in the middle of an English walnut panel, or inlaid with motifs of stained veneer mocking painting even more horribly. All that gratuitous decoration of this kind achieves is the destruction of the purity of the thing itself. If a job requires, when finished, the addition of ornament, this can only mean that it has failed in the first place. Professor Reilly, speaking at the R.I.B.A. on the occasion of a paper on factories, mentioned the models of factories made by Mendelsohn. The latter's groups of plastic form have a sculptural quality and require no façade enrichment.

Simplicity is essential in a scientific age if we are to retain our sanity. We most of us feel pretty jaded after the rush of our business, the speed and noise of transport, the complexity and variety



Russian Tenement House at Saratow. By S. A. Lissagor and E. Popow. A new solution for economic housing, having, for its aim, maximum cubic capacity for the living room, uninterrupted through-ventilation and fully lighted and ventilated corridors. Compare the restrictions on the equivalent type of building in the London slum clearance and tenement housing proposals. Should we not, in order to arrive at the topical minimum rent, attempt to reduce cost through new planning, construction and material, and not through restrictions on living space ?

of powerful light, the medley of signs and colour, the ever-growing press nonsense and advertisements, all of which we encounter inevitably in our daily lives. We require of art a direct

The Metal-workers' Union Headquarters, Berlin. By Erich Mendelsohn. A straightforward exterior treatment preparing the visitor for the interior which is equally topical and free from gratuitous decoration, depending for its effect on texture, scale and magnificent airiness and lightness of the glass-enclosed staircases.

contrast to this bustle in order to give our nerves a well-earned rest. If we are to put these principles into practice, we shall eliminate fussy buildings and fussy things within our houses.

We must take into consideration that this is an age of machines. We all of us have often been interested in the record feats of racing cars and aeroplanes. Nearly all of us are owners or prospective owners of, or travellers in, cars, which are of absorbing personal interest. We are all of us now machine-conscious. I believe we all like machinery. Paradoxically, however, the owner who drives up in an efficient and comfortable car of the latest pattern, of whose very up-to-dateness he is proud, will bark his shins nightly and gladly against the legs of a gateleg table. Most of us will submit, after insisting on a sunshine roof to the saloon, to being cramped in an over-furnished and under-lit bedroom.

Modern designers are embracing machinery as a heaven-sent opportunity to multiply good design and make it accessible to all. Cheapness is the most essential quality which should underly all logical design today. Designers of furniture, fabrics and objects of all kinds were in the past shy of machinery. Machinery was supposed to be at war with craftsmanship. The result of their attitude was that machine production was not supervized by intelligent designers, and the survival of these bad examples are still to be met everywhere.

This spuriousness encouraged designers to stage various period revivals, and founded the art-and-crafty movements with which we are all too familiar. The profusion of such things as were offered to the public through exhibitions and shops itself created the temptation to acquire many things which were completely useless, of which we got tired and sometimes got to dislike violently.

We have arrived at a point where as drastic a difference can be shown between the spurious modern and the real, as had been drawn in the past between the real antique of quality and the sham. The plethora of the spurious which has damaged the prestige of real endeavour has three causes, roughly classified : Snobbery, sentiment and stupidity. In England, to a greater extent than anywhere else, the middle classes copy the rich. When the rich collected antiques, the demand sprang up among their followers for the sham antique.

Let me quote you a manufacturer's advertisement which recently appeared in a trade paper : "As most *modern* residences are *Tudor*, we invite our clients to inspect our range of *new old-world* furniture." This example of imbecility would be laughable if it were unique. Unfortunately it is only one instance among many.

An examination of houses and flats of a more expensive type reveals the same exhibition of blind snobbery. In the period of post-war prosperity the decorators who exploited new shapes and colour combinations vied with each other in producing novelties which had no roots in realities. The styles of past and more spacious days were squeezed and squashed by ingenious decorators into the utterly inappropriate scale of our modern life.

Complacent prejudice against change, in some cases through sheer persistency and consistency, demands a certain attention, and, having no other qualities, is dangerous.

Sentiment in some cases preserves for some of us a wash-hand stand, forgetful of the fact that ablutions are now more expeditiously and conveniently carried out in the bathroom ; or a teapot of precious form and material, forgetful that in these days we no longer have the trained staff of servants which in the past was the most perfect of labour-saving devices. It may be argued that wash-hand stands and fragile teapots are kept by people who cannot afford to replace them. The wrong, however, does not lie in the survival of old pieces, but in the fact that reproductions of the wash-hand stand and fragile teapot are still offered to the public, together with dozens of other similar things of equal obsoleteness.

Stupidity explains such phenomena as :

Glass and metal tables of illogical design which made their appearance in drawing-rooms.

Ignorant chat about Cubism which scattered clumsy square pieces through drawing-rooms.

Floor linoleums which were put on walls inside out to obtain some meaningless effect.

Black glass floors which were laid in expensive bedrooms for ladies to regret at leisure every time they put a foot down.

Tiny electric heaters which replaced large fireplaces in old "period" drawing-rooms, around which giant sofas gathered like a herd of elephants round a glow-worm.

So-called pretty lamps of complicated geometric form, which could only be looked at, but which gave no light, which appeared, together with "modernistic" clocks, giving no indication of the time.

Equally, logical fresh design is not achieved through the elimination of ornament, which many people believe to have been the essence of this new movement. Nothing is gained by simplifying classic forms in order to conform to the new demand. This method only makes a vicious circle of evolution. To take some finished product of elegance produced within the limits of materials and construction of another age, and to eliminate its enrichment is merely walking backwards on the road of its evolution.

In spite of all these obstructions, it is apparent that we are on the road to a simple direct art, expressive of our time and in harmony with it. We are now passing through inevitable experiments between designers, manufacturers, tradesmen, available materials and purchasing power.

To conclude, I should like again to quote some words of Professor McMurray :—

> What we need to withstand the transformation of the conditions of life is not the false security of fixed beliefs, but the true security that comes only through the capacity to change our opinions continuously in a balanced and controlled fashion by a continuous testing of them against the changing facts of experience.

THE SPECIFICATION WRITER

X-RAYS FOR TESTING WELDS

[By R. A. STEPHEN, M. Sc.]

The following information, of particular interest in view of the growth of welding in steel structures, is summarized from a paper recently read before the members of the Institution of Welding Engineers.

IN this country welding has been enthusiastically adopted for the fabrication of comparatively low stressed structures, the failure of which would not endanger life. This has encouraged the welding industry to press for the adoption of the process in the field where stresses are severe, where failure is serious, and where specifications are most stringent.

Testing the immense variety of the structures on which welding ultimately will be used presents its own problems. In certain cases it will be found practicable to test every cubic inch of the welds. Here there should be no dispute regarding the value of the X-ray method.

But on consideration of large structures, such as occur in shipbuilding or in civil construction work, which will entail a great number of welded joins, we must face the fact that it will be impossible to test every weld. In such cases a compromise can be effected. However much we dislike this compromise, the probability method of testing is bound to enter on most welded structures. This question naturally follows :—

How can one ensure a uniformly high standard of workmanship of the welder ? In my opinion, asking a welder to perform specimen welds, which will afterwards be tested, will not suffice. In these circumstances any operator will do his best. How then can one deal with the problem ? Would it not be best to carry out non-destructive tests on regions of the structure selected at random, and to inform all welders of this intention ? Should this procedure be followed, because the operators will not know where the tests are to be carried out, they will, in their own interest, maintain a uniformly high standard.

Let us consider the defects to which welds can conceivably be subject.

We can place these defects in two categories :—

1. Microscopic defects.
2. Macroscopic defects.

In Section 1 we include defects in the microstructure of the weld metal, of damage to the microstructure of the parent metal and locked-up stresses, which have not given rise to contraction cracks.

In Section 2 we list imperfect fusion at the bottom and sides of the weld, slag inclusions and blow-holes. In this section we also include improper filling between adjacent runs of metal and cracks which have occurred in the cooling process due to the release of locked up stresses.

Faults in Section 1, other than that of locked-up stresses, can be counteracted by the choice of the correct welding rods, by giving definite instructions and by constantly checking the currents used for welding. This also helps to prevent overheating of the parent structure.

The faults in Section 2, however, depend on the human element or, when automatic welding is carried out, on the correct adjustment and maintenance of the settings. Defects of this type, fortunately, can be detected by the non-destructive test of X-rays.

X-rays are akin to ordinary light in that they travel in straight lines and affect photographic emulsion. Although invisible, they are essentially of the same nature as ordinary light waves, but possess the peculiar property of penetrating opaque materials. In doing this, however, they suffer absorption, the degree of which depends, amongst other factors, on the nature of the material, the length of the path traversed and the kind of X-rays used.

For those X-rays useful for the examination of welds in steel the absorption in air is very small. In metals, however, the absorption is greater and increases with the density. The use of X-rays for the testing of welds depends on the simple principle of absorption.

Let us consider the examination of metals for internal flaws :—

A beam of X-rays traverses a bar of metal, in which we suppose there exists a cavity. That portion of the beam which goes through the cavity is not weakened by absorption to the same degree as the rest of the beam, which has to traverse homogeneous metal. On development of the films there will be registered a black shadow corresponding to the cavity, the intensity of which depends on the dimensions of the flaw in the direction of the incident rays. It will be realized that in principle the examination of welds is exactly the same as in this case, that is the beam of X-rays is passed through the weld and the film is placed behind. But in the weld metal examined we may have blowholes, cavities, cracks or slag inclusions. The picture of the interior of the weld, however, is registered on the flat film —i.e., in two dimensions. Up to 2½ ins. of steel, flaws of dimensions down to 1·5 per cent. of the parent metal give a shadow of sufficient intensity to be detected with ease against the background corresponding to homogeneous metal.

Having obtained a radiograph of a welded seam, one has to form an opinion of the weld, and for different classes of work, depending on the severity of the stresses to which it may be subjected, one naturally has different standards.

Most common faults are small blowholes, which, in themselves, are not really serious, but if there are a large number present in a small volume they may seriously weaken the joint. Faults on the part of the operator, such as lack of fusion at the bottom of the Vee or at the sides require consideration and the seriousness of the fault depends on its dimensions. Small cracks or lack of fusion, represented on the negative by thin dark lines at the sides of the Vee, are to be considered as rather more serious than lack of fusion at the bottom. In such cases, as will be appreciated, there may be a thin wedge of weld metal adhering to the parent plate in perhaps one or two places only.

When a fault has been located—an inspector may have some doubt concerning its seriousness—it is then advantageous to take a second picture from a different angle or to use the stereoscopic method of measuring the dimensions of flaws. This is a very simple method akin to that used for the localization by X-rays of bullets in the human body. It is one in almost every day use in medical practice.

Having discussed the X-ray picture which can be obtained, a few remarks regarding the plant which is necessary are called for.

Hitherto X-ray plant has been bulky, difficult to handle and not a little dangerous. Recent apparatus introduced contains such original and striking improvements that for the first time X-ray apparatus can be regarded as a practicable engineering tool, is completely shock-proof and ray-proof, and is transportable. As a result of the use of the unit principle, it has been found possible to dispense with complicated controls. This latter fact is all-important. It means that no metallurgist or engineer need feel debarred from making use of such an equipment through lack of experience of high tension or X-ray technique. Actually, any laboratory assistant of average intelligence can be taught how to obtain X-ray pictures of welded seams of pressure vessels in an extremely short period. The view has been expressed that to carry out the practical side of an X-ray test of welds needs skilled personnel—this is no longer true. There are only two controls of importance.

If defective welds are made, sooner or later they will result in failure. Is it not best to check their quality on the spot where the defects can best be remedied? By this means, too, the technique of the welding process can be improved. Furthermore, there is the all-important question of the additional security to be gained by the use of X-ray examination, a method which experience has shown to be reliable.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Housing (Financial Provisions) Bill

SEVERAL interesting points were raised during the Committee stage of the Housing (Financial Provisions) Bill in the House of Commons last week.

Mr. Greenwood, on behalf of the Labour Party, moved an amendment to except houses built in rural parishes from the operation of Clause I, which does away with the subsidy. He said that under the Bill as it stood no houses could be built adequately to meet requirements in the countryside, and local authorities could not deal with the problem if the 1924 subsidy were taken away from them.

Sir Hilton Young, the Minister of Health, opposed the amendment, and maintained that there was a better prospect of more new houses being obtained under the Bill than there had been before, because subsidized competition was being cleared away from the path of private enterprise. Therefore, there was no case at all for special treatment of the residents in rural areas other than agricultural labourers. The passing of the amendment would do no good to agricultural labourers. The population of rural areas was shrinking, whereas that of urban areas was increasing. Hence the problem was not the number but the right sort of houses. The agricultural labourer could not pay the rents of the subsidized houses, and the policy of the Bill was to continue to give help in the only form in which it could be of any use—namely, for reconditioning existing houses which, after reconditioning, could still be let at rents which the agricultural labourer could pay. There was a perfectly good Act for that purpose, but it had not been used, and he proposed to take a vigorous initiative in calling the attention of the responsible authorities to it. It had been suggested to him by men of practical knowledge that the reason for the insufficient use of the Act was that it had been too exclusively left to the use of the county councils. Some county councils had done excellent work, but, on the whole, there had been insufficient initiative, and he proposed that there should be a more free transfer of the powers of the county councils to the authorities of the county districts. The subsidies under the Housing Act of 1930 were also available to the rural authorities for clearing the rural slums. With the assistance of these subsidies, the replaced houses could be let in most areas at 3/- or 4/- a week, inclusive of rates.

The amendment was negatived by 305 votes to 51.

Sir Hilton Young moved an amendment providing that if the Minister were satisfied that proposals for providing or promoting the provision of houses under those Acts had been prepared and were substantially ready to be submitted to him before December 7, 1932, he might, subject to the approval of the Treasury, treat the proposals as if they had been submitted to him before that date.

The amendment was agreed to.

Sir Percy Harris moved an amendment to provide that houses should be of not less than 620 and not more than 950 superficial feet, but Sir Hilton Young resisted the amendment. He said that the upper limit was far in advance of anything that was necessary for the provision of the small house to let at a reasonable rent to the lower-paid wage earner, while the lower limit was unnecessary because, it was already provided for in the Act of 1925.

The amendment was negatived by 198 votes to 44.

The following amendment was agreed to:—"Provided that any proposals made to the Minister under this section shall—(*a*) include such particulars as he may direct as to the number and type of the houses intended to be built or acquired and the approximate size of them measured in superficial feet; and—(*b*) make provision for securing that, except in so far as the Minister may in any particular case dispense with the requirements of this paragraph, the number of such houses in relation to the area occupied or intended to be occupied by and in connection with them will not exceed the rate of twelve to the acre."

Mr. Hicks moved to insert a proviso that a fair wages clause should be inserted in all contracts for houses.

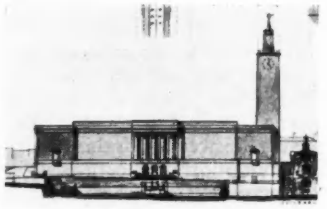
Sir Hilton Young said that there was no intention on the part of the Government to make any breaches in the defences of the fair wages clause. But instead of dealing with the matter in the way proposed by the amendment, he would undertake to address a circular to local authorities on the lines of that issued by the Local Government Board in September 1931, in which the strongest possible emphasis was placed on the fair wages clause, and the strongest possible recommendation was given to local authorities to employ that clause in their contracts.

The amendment was negatived by 142 votes to 34, and the Committee stage was afterwards concluded without any further alterations being made in the Bill.

Whitehall Rebuilding Scheme

At question time in the Commons, Mr. Ormsby-Gore, the First Commissioner of Works, informed Mr. Levy that no decision had yet been reached with the proposal to release a number of the departments under one roof in Whitehall. He was considering whether an economical scheme could be worked out, assuming that the decision of Parliament, that the original scheme could not proceed, was accepted and that they could not have all the land originally contemplated.

In reply to Mr. Wedderburn and Sir S. Chapman, Mr. Ormsby-Gore said that the possibility of proceeding with the scheme for centralizing departmental staffs in one building in Edinburgh was at present under consideration by both the Secretary of State for Scotland and himself. As his hon. friends were no doubt aware there were certain site and architectural problems which must be resolved, before a decision whether to proceed with the projected scheme could be taken.



An instance of reckless saving that will lead eventually to excessive expenditure. Mr. Stanley Ramsey explains, below, why Norwich Town Hall, which might be built today for £200,000, may in three years' time cost more than twice that amount.

RECKLESS SAVING

Mr. Stanley C. Ramsey, F.R.I.B.A., speaking at a recent meeting of the Norwich Rotary Club on the subject of "Reckless Saving," suggested that if the rating authorities would declare a rates moratorium on extensions to factories and new business premises for a period of three or five years it would give an impetus to building. He made special reference to the proposal to build a Town Hall for Norwich, pointing to the advantage of building now when costs are low.

Mr. Ramsey then gave some figures to show how Norwich was affected by the postponement of the Town Hall building scheme. He understood that a year ago the estimated cost of building the Town Hall was £250,000. There had been a fall in building costs during the last twelve months of 15 to 25 per cent., according to localities. Speaking subject to local connection, he would take the fall locally at 20 per cent., so that it could be assumed that the Town Hall could now be built for £200,000. Assuming that there was a number of unemployed building operatives in the city who would not be absorbed in other building work, the postponement of the scheme meant a cost in unemployed pay and transitional benefit of, say, £66,000. That was the first year. The second year, if the scheme was still postponed, it would cost the city—not the nation—£66,000 in Poor Law relief; and the third year, supposing the scheme was still postponed, a similar sum. If Norwich waited, as most people seemed to be waiting, until everybody wanted to build at once, what would be the inevitable result?

Today builders were putting in very low prices because they desired to keep their men and plant employed. Obviously, when a start was made again and everybody desired to build at once, prices would go up. A fair assumption was that there might be a rise of, say, 30 per cent., or £60,000. This, added to the sums which would be paid in three years in unemployment pay and in relief, would total £258,000, which would mean that whereas the Town Hall might be built now for £200,000. £458,000 might be spent in all. "That seems to be reckless saving with a vengeance," said Mr. Ramsey.

There had been a suggestion that the Government might be persuaded to allow the cost of the dole and of transitional benefit towards such a scheme. If so, and they would give a direct grant of, say, £66,000, that might help the situation.

OBITUARY

JOHN B. LOFTING

We regret to record the death, in his seventy-sixth year, of Mr. John B. Lofting, F.S.I.

He was in practice as a Chartered Quantity Surveyor for over fifty years, and during that time was associated with many important works, including the Memorial Buildings, Clare College, and the University Library, Cambridge, Lady Margaret Hall and Pusey House, Oxford, the Restoration of Barrington Court, Somerset, and St. Columba Church, Scarborough.

Mr. Lofting took an active part in his work to within six months of his decease. His practice is being carried on as John B. Lofting and Co., at the same address, 44, Bedford Row, London, W.C.1.

W. M. DEAN

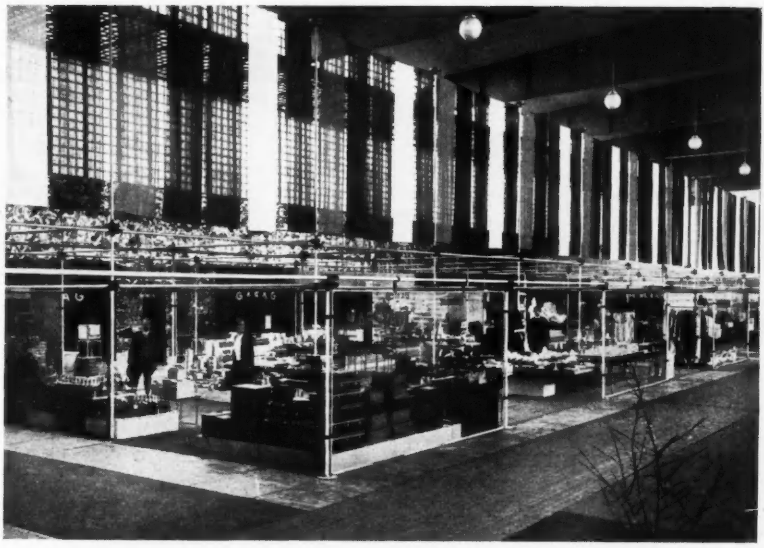
We learn with regret of the death of Mr. William Mackereth Dean, M.C., A.R.I.B.A., in his fifty-fourth year.

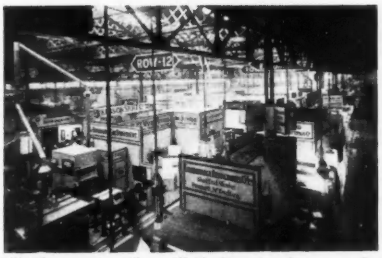
Born in 1879, Mr. Dean was for many years in partnership with Mr. A. N. Prentice, F.R.I.B.A. In addition to its architectural work in this country, which included a large number of houses, the firm was responsible for the interior decorations of numerous steamships for Australian and South American lines.

Norwich Municipal Aerodrome

The new Municipal Aerodrome, Norwich, will be opened by H.R.H. the Prince of Wales on June 21.

BERLIN AND BRUM





The above illustration shows one of the covered galleries of the permanent exhibition buildings, Berlin, designed by Hans Poelzig and M. Wagner, and transformed for last summer's "Week-End Exhibition." The standardized stands, which are occupied by leading outfitting and furnishing, etc., firms, were designed by Dr. Erwin Gutkind and Professor Adolf Rading. Their constructional elements could not possibly be simpler—tubular-steel scaffold poles, large sheets of plate glass and plain wooden plinths—yet the effect is spacious, orderly and inviting. Compared with the arrangement of this gallery that of the British Industries Fair at Castle Bromwich, Birmingham, is a confused jumble of miscellaneous-sized partitions, crowded booths, and obstructing stanchions and roof-trusses, devoid of co-ordination or coherence, which resembles—in so far as it resembles anything—an Oriental bazaar, set down in the middle of a Canadian mining-camp.

Suburban Horrors

"At the present rate of progress it is only a matter of a few years until the whole countryside from London to Brighton will become for the motorist a series of suburban horrors. I think that London is far too big at the present time, and that steps should be taken to prevent any further increase in its size." This opinion was expressed by Mr. W. D. H. McCullough at a conference of the Master Signmakers' Association, held in London recently. He further stated that "it is only necessary to drive from Charing Cross to Chelmsford to realize the ghastly failure of the commercial architecture of the past 20 years—no planning, no co-ordination of design, a complicated mass of ill-assorted shop fronts huddled together and surrounded by acres of self-satisfied villas and slums."

Stratford-upon-Avon Festival

The original Shakespeare Theatre is not lost to Stratford, but, under a new guise, will have a very important part to play in the future of the town. Practically the whole of the circular walls are still standing, and Messrs. Scott, Chesterton and Shepherd, the architects of the new theatre, have produced a scheme for the roofing over and converting the building into a Conference Hall capable of seating 400 people.

The architectural scheme, while preserving the character of the old building, is designed to bring the Hall into harmony with the more modern style of the new theatre.

It is hoped that the Hall will be completed in time for the opening of this year's Festival on April 17 (Easter Monday).

LAW REPORTS

ALLEGED PUBLIC RIGHTS

Drummond v. *Demoulins and Others.—Chancery Division. Before Mr. Justice Maugham*

THIS was an action by an owner of a lane leading to the sea and/or foreshore against the inhabitants of Fawley, Hants., represented by the Fawley Parish Council and inhabitants, the Southampton County Council and the New Forest R.D.C., for declarations as to his rights, and an injunction restraining trespass.

The plaintiff was Mr. C. A. Drummond, and as owner of the Cadland estate of 4,000 acres at Fawley, he sought declarations that Green Lane on his property leading from the Calshot Lepe Road to the shore of the Solent was not a public highway, that there were no public rights of way along his foreshore, and that the inhabitants of Fawley had no customary right of access to his beach for the purposes of bathing and recreation.

Mr. Gover, K.C., for the plaintiff, said his client was owner of the land and foreshore and he had entered into advantageous contracts for the sale of parts of his estate. The defendants had asserted public rights to the foreshore, and in consequence of this the plaintiff's purchaser had refused to complete. Under these circumstances his client had no other course than to bring this action.

Mr. Swords, K.C., for the defendants, said his clients asserted public rights to the foreshore and they thought it fit to protect them.

His lordship did not see how the defendants could possibly succeed in the face of the plaintiff's rights to the foreshore which he claimed.

Mr. Swords said under these circumstances his clients abandoned their claim to a right of way along the foreshore.

His lordship said in his opinion the alleged public rights had not been established and it necessarily followed that plaintiff must succeed. Judgment for plaintiff, with costs. He granted liberty to apply if necessary for an injunction.

ALLEGED BREACH OF COVENANT

Warne and Others v. *Cook and Another.—Official Referee's Court. Before Mr. S. R. C. Bosanquet, K.C.*

THIS action concerned a claim for possession of four houses at Ram Square, Wandsworth, on the ground of breach of covenant to repair. The defendants were Mr. Cook and Mrs. Channing Stephens, and the first defendant replied that he had no interest in the property. The second, whilst admitting she was the assignee of the lease, denied that the covenants had been broken, and pleaded that she had complied with the notice served upon her.

Mr. J. D. Casswell, for the plaintiffs, said the houses were nearly new when they came into the possession of the defendant, and his instructions were that they had been allowed to get into a dilapidated state.

Mr. Martineau submitted that all the work necessary had been carried out and therefore the action was misconceived. He asked that the defendant Cook should be dismissed from the action with costs.

The Official Referee said the action against Mr. Cook would be dismissed with costs, as he was only the agent of the lessee. With regard to the other defendant, Mrs. Channing Stephens, the action against her would also be dismissed with costs. In the course of his judgment, the Official Referee said the notice to repair was served three months before the issue of the writ on Mrs. Stephens, and it appeared that she had carried out most of the repairs, and therefore the question was whether the trivial items that remained entitled the plaintiffs to possession. On behalf of the plaintiffs it had been urged that as the houses were new at the commencement of the leases, they must be kept as such. In his view it was impossible at the end of 90 years to hand back new houses. He held that Mrs. Channing had substantially complied with the covenants of her lease and had done what was reasonable and proper.

QUESTIONS THAT ARISE

Condensation on Roof

¶ A. F. L. writes: "*I would be glad if your technical expert could give me some advice on the prevention of condensation on the underside of a flat concrete roof, the ceiling of which has been cement rendered and finished with patent plaster. Regarding ventilation, the garage doors are generally left wide open all day, but the condensation is still bad. I enclose sketch showing layout of affected part.*"

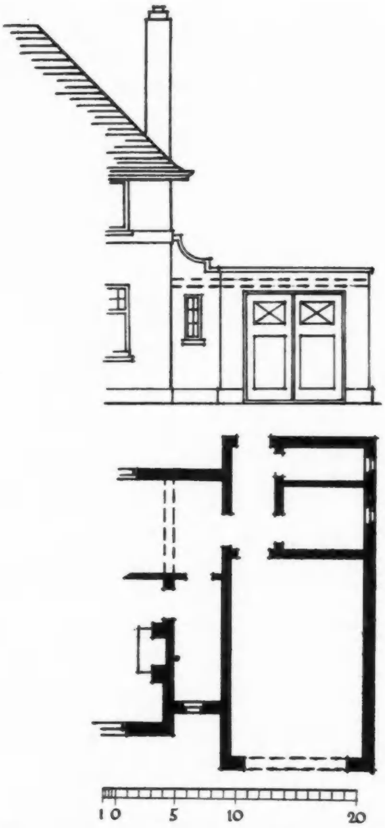
All materials which are non-absorbent of moisture will show condensation when atmospheric conditions are favourable. If the air is charged with moisture owing to recent rain and the temperature suddenly drops, the moisture will be deposited as dew on all exposed surfaces and this will be more pronounced on cold surfaces. One of the objections raised against concrete buildings is that moisture is condensed more readily than in brick-built buildings.

If the surfaces are papered or covered with lime plaster or similar absorbent material the condensed moisture quickly disappears, but if covered with hard plaster or other non-absorbent material the moisture will collect and finally drop off the ceiling and trickle down the walls.

The garage should, of course, be ventilated for other reasons than condensation, but ventilation will not materially assist in preventing the inconvenience caused. A current of moist air passing through the building will, in fact, favour the deposition of the moisture.

A remedy would be to plaster the ceiling with lime and hair mortar. Expanded metal lathing should first be fixed near the ceiling to form a key for the plastering and the finished work should be distempered.

It would be an advantage to heat the garage—if not already heated. N. H.



A diagram showing a concrete flat roof, the underside of which is affected by condensation. Remedies are suggested in the reply to the accompanying query on Condensation on Roof.

Radiator and Wall Recess

¶ A. E. M. writes: "*I would be glad if any of your readers could tell me if they have experienced a difficulty similar to mine in connection with hot water radiators, recessed and enclosed in brick walls, having bronze grilles to the whole of the front of the openings, screwed to walls flush with plaster. I find that it is almost impossible to obtain any radiated heat, although the radiators themselves are very hot. How can this be remedied?*"

Though misleadingly called "radiators," most of the heat distributed from hot water circulating appliances so named is convected heat, due to the passage of air currents over the heated surfaces and their distribution about the adjoining space. In the circumstances decribed, any such movement must be extremely sluggish and the small balance of genuinely radiated heat would be largely intercepted by the grilles.

If an air inlet to the bottom of each radiator can be contrived, and possibly an outlet-grating above as well, some improvement may be looked for, but a radiator almost entirely enclosed can never deliver up to anything like its potential heating value.

E. G.

SOCIETIES AND INSTITUTIONS

FURNITURE DESIGN

The Design and Quality of Old English Furniture. By R. W. Symonds. The Auctioneers and Estate Agents' Institute. London: Thursday, March 2.

It is imperative to convince a manufacturer that if he would, instead of telling the public what furniture they should buy, be humble and learn what the public really want, and produce it, he would make more money in the long run. He must realize that the public know what they want when they see it, but that they are unable to describe or define it.

There are artists and designers whose intellectual equipment should enable them to interpret the needs and requirements of the English people today, and it is the help of such designers that the manufacturer should seek. These designers must study old English furniture, not in order that they may merely reproduce the style and ornament—which has been extensively done by all furniture manufacturers during the last fifty years—but that they shall understand the principles on which the past styles of furniture were brought into being, and base their work on those principles.

These principles hold good today as they did in the past. That is the message which old English furniture hands down to those who care to listen to it; and that is why it must stand for something more than a past craft of mere antiquarian interest.

LIGHTING IN SCHOOLS

Mr. C. A. Hughes, speaking on "Electric Lighting in Schools," at the Conference for Architects, held at the Lighting Service Bureau on Wednesday last, pointed out the need for regulations to provide an adequate supply of artificial light in classrooms, especially in urban districts.

As the formative period for eyes is during the first twenty years of life, it is important that nothing which will cause defective vision by glare or strain should be permitted in school lighting. Light coloured walls, matt surfaces to desks, paper, blackboards, etc., and lamps placed in carefully regulated positions, and provided with diffusive shades, all help to preserve the eyesight. Statistics show that far better results are obtained from children working in rooms where the problem of efficient artificial lighting is carefully considered, than from children working in rooms where the light is inadequate, or badly placed in relation to the position of the scholars.

AN ARCHITECT-DICTATOR

"What Is, What Was, and What Might Be." By Clough Williams-Ellis, F.R.I.B.A. Cardiff Publicity Club. February 23.

Artistry means design and planning, and we are beginning to discover that to try to run civilization without reasonable design and planning in its every-day background is a pretty futile and hopeless thing.

I saw in "The Western Mail" this morning that Sir Raymond Unwin is coming to Cardiff tomorrow—a great man and the best president the Royal Institute of British Architects ever had. If 30 years ago, when I felt I was just right for it, he or I had been made the supreme dictator of this country, things would have been different. There would have been none of this wasteful lack of planning. I feel if we had been in power there would have been no crisis today, no depression, no difficulties of any kind. Probably there would not have been a war. That is what I think might have been!

I do not think a great many of the difficulties of which perfectly hard-headed business men complain today are due to a lack of artistic and fore-thoughtful planning in the lay-out of the country. We must seek the end of public right to do public wrong; there must be more co-ordination. I feel planning, order, seemliness, efficiency and economic prosperity, are much more one than we fancy. I think you will have a good illustration of this when the Cardiff new station is finished.

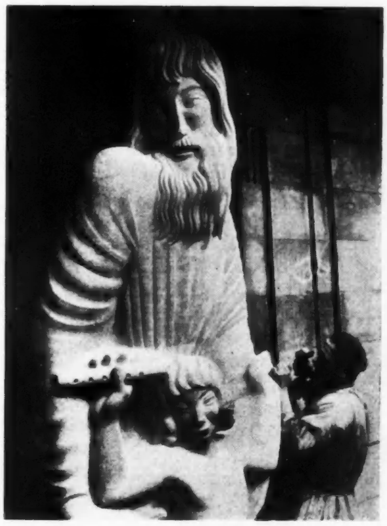
I hope some day we may return to sanity, and in the meantime we may preserve here and there ticket specimens of what Wales used to be like.

SOUTH WALES ARCHITECTS' DINNER

The annual dinner of the South Wales Institute of Architects was held at Cardiff on February 24. Mr. J. Herbert Jones, F.R.I.B.A., presided.

Proposing the toast of "The R.I.B.A. and its Allied Societies," Mr. Lewis Jones, M.P., said the State had transferred the onus of building from itself to private enterprise—but the responsibility was not a light one. They had to meet the demand, and they had to proceed with the building of houses on a planned or rational scheme, and nobody appreciated the responsibility of those connected with the industry more readily than Sir Raymond Unwin. His scheme for the formation of a National Housing Board—a public utility company—on the lines of the Central Electricity Board, to co-ordinate the existing 250 or so housing societies, seemed very desirable.

Responding, Sir Raymond Unwin said if we go to work to make it a great public service to house the people, who now cannot afford it, we might do something yet to improve the conditions of housing for those poor people who today had not the means.



Prospero and Ariel, the statue which surmounts the entrance to Broadcasting House. The sculptor, Eric Gill, is here seen putting the finishing touches to his work.

HEATING AND VENTILATING ENGINEERS

The Institution of Heating and Ventilating Engineers, in order to keep its members more up to date with the Institution's work, has decided to issue a monthly Journal instead of its annual Volume of Proceedings.

This Journal, available to members only, will publish reports of the proceedings and papers presented at the Institution meetings. It is proposed to devote space to investigations connected with heating, ventilating and allied subjects carried out at the Building Research Station. The first issue will appear in March.

TRADE NOTES

It will be recalled that in 1932 the world producers of aluminium decided to renew the International Competition, open to technical workers in every part of the world, originated with the object of awarding prizes for the best suggestions made relative to the use of aluminium and its alloys.

The competition jury, who met in December of last year, has allocated the 20,000 (Swiss) francs voted for the prize-money as follows: 4,000 to Dr. Eckert, of Grevenbroich (Germany); 4,000 to M. Philippe, of Paris (France); 3,000 to Mr. Y. Hirakawa of Yawata (Japan); 3,000 to Th. Schweizer, of Zurich (Switzerland); 2,000 to M. Py, of Paris (France); 2,000 to Mr. Steinborn, of Rodange (Grand Duchy

of Luxemburg) ; and 2,000 to M. H. Tatu, of Lyons (France).

More than 1,000 persons addressed enquiries to The Bureau International de l'Aluminium as to the details of the Competition, and 405 memoranda were received, which, in the great majority of cases, were based on serious investigations and showed an expert knowledge of the light metals.

*

Messrs. G. A. Harvey & Co. (London), Ltd., of Woolwich Road, S.E.7, have just issued a folder illustrating and describing Harco Patent Metalace, a new form of woven wire. It is pointed out that formerly all weaving, whether of wool, cotton, silk or wire, was limited to the use of strands which always ran at right angles to each other. Now, however, by means of machinery which the firm have recently built, they are able to incorporate additional strands diagonally, thus enabling them to produce a new design in woven wire. Harco Patent Metalace, claimed to be suitable for ventilating panels, radiator covers, guards for hot water piping, etc., can be supplied in pieces cut to any required shape or size. Copies of the folder are obtainable on application to the firm at the above address.

*

The following is extracted from a letter by the Assistant Secretary of the Mercantile Marine Department of the Board of Trade, to Messrs. Pilkington Bros. Ltd. :

"I am directed by the Board of Trade to inform you that they have had under consideration the results of the tests that have been made with your Armourplate glass, and in the light of these tests they are prepared to grant provisional approval for the use of this glass in ships' side scuttles. The Board will also raise no objection to its use, under approved conditions, in other glazed openings on board ship."

Every piece of Armourplate glass for use in ships' side scuttles will, we understand, be subjected to a test agreed with the Board of Trade, and the Board's surveyors will be at liberty to visit the works of the manufacturers, Pilkington Brothers, Ltd., of St. Helens, to carry out any examination at any time.

The Board of Trade will now allow Armourplate glass to be used in the following thicknesses to replace ordinary plate glass of greater thickness :—

				Ordinary Plate Glass
1 in.	Armourplate	Glass	for	1½ in.
13/16 in.	,,	,,	,,	1¼ in.
¾ in.	,,	,,	,,	1⅛ in.
⅝ in.	,,	,,	,,	1 in.
½ in.	,,	,,	,,	¾ in.
⅜ in.	,,	,,	,,	½ in.

*

England's Most Modern Factory is the title of a booklet, just issued by Nobel Chemical Finishes, Ltd., dealing with the new building for Boots' Pure Drug Co., Ltd., at Beeston, Notts, designed by Sir Owen Williams, K.B.E. It is pointed out that in the autumn of 1931 tenders were sent out for the paints required for the decoration and protection of Messrs. Boots' new works at Beeston, which were then in the course of erection. On receiving the tenders samples of the paints were called for, and submitted to independent trials by the contractors under the supervision of the engineer. These samples were applied to typical concrete columns and left for three months (November, 1931, to February, 1932), exposed to the weather during the worst part of the winter. At the end of the test the columns were examined and it was found that the Dulux finished column was in better condition than any other. Dulux, which is manufactured by Nobel Chemical Finishes Ltd., was therefore specified exclusively for the entire decoration of the factory. The booklet contains several interior and exterior views of the factory, each with a short description of the surfaces painted and the processes used.

Copies of the booklet are obtainable from the firm at Slough, Bucks.

*

Messrs. W. T. Henley's Telegraph Works Co., Ltd., have transferred the offices of their Birmingham branch to Empire House, 158-159, Great Charles Street, Birmingham, 3. Telephone Nos. : Central 3774 and 3775.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors, and some of the subcontractors for the buildings illustrated in this issue :

Regal Cinema, St. Leonard's-on-Sea (pages 327-329 and supplement). General contractor, H. J. Harvey ; consulting electrical engineer, C. H. Mendham. Sub-contractors : H. E. Keen & Co., Ltd., electrical and mechanical gear ; Kingsmill Metal Co., Ltd., art metal work (canopy, etc.) ; Winter & Co., joinery ; London Radiator Heating Co., Ltd., vacuum plant ; Leyland and Birmingham Rubber Co., Ltd., floor covering ; Cinema Supply Co., Ltd., floor covering (carpet) ; T. P. Bennett and Sons, marble ; G. Asserate and Sons, asphalting ; Battle Steel Window Co., Ltd., windows ; Parker, Winder and Achurch, Ltd., door and window furniture ; Clarke Vigilant Sprinkler Co., Ltd., and Pyrene Co., Ltd., fire extinguishers ; Cinema Supply Co., seating ; Self Sentering Expanded Metal Co., Ltd., reinforcement ; Powers and Deane Ransome's, Ltd., steelwork ; Brown and Madeley, fibrous plaster work ; London Radiator Heating Co., Ltd., ventilating plant, heating and hot water ; Pickering & Co., Ltd., lifts for service to buffets ; Lumley & Co., Ltd., café equipment ; E. G. Turner (The Perforated Front Screen Projection Co., Ltd.), screen ; Edison Swan Electric Co., Ltd., flood lighting ; John Compton Organ Co., Ltd., organ ; Knight & Co., Ltd., stage equipment and safety device ; Absorbit, Ltd., sound insulation ; Chloride Electrical Storage Co., Ltd., independent lighting ; Mollo and Egan, interior decoration ; Astral Engineering Co., switchgear ; Strand Electric, stage battens ; Ross, Ltd., projectors ; Western Electric, Ltd., talkie apparatus ; Lancashire Dynamo and Crypto Co., Ltd., motor generators ; Foster Engineering Co., Ltd., transformers.

New Recreation Hall, Liverpool Sanatorium, Frodsham, Cheshire (pages 330-331). General contractor, Harry Fairclough. Subcontractors : Thomas James, Ltd., Westmoreland Green Slate Quarries, slates ; General Electric Co., Ltd., boilers, electric light fixtures and electric heating ; Parrys, electric wiring ; Quiggins, Ltd., door furniture ; Rea Metal Casements, Ltd., casements.

Store for J. E. Beale, Ltd., Bournemouth (page 336). General contractors, Bainbridge and Sons. Sub-contractors : Aish & Co., electrical installation ; Auto-Control Boilers, Ltd., central heating and gas boilers ; Banister, Walton & Co., Ltd., steel construction ; Frederick Braby & Co., Ltd., steel staircases, copper roofing, iron and bronze balustrading ; Carter & Co. (London), Ltd., tiling ; J. Caslake, external iron staircases and railings ; Crittall Manufacturing Co., Ltd., steel casements ; Joseph Ebner, Gurjun wood parquetry flooring ; W. J. Furse & Co., Ltd., lightning conductors ; Grounds & Newton, Ltd., asphalt roofing ; G. N. Haden and Sons, Ltd., central heating and plenum ventilating plant, domestic hot water supplies and destructor boiler ; Hobart Manufacturing Co., Ltd., washing up machines ; Kennedy (Bournemouth), Ltd., sanitary appliances and fittings ; Lamson Pneumatic Tube Co., Ltd., pneumatic cash tubes and vacuum cleaning plant ; Leeds Fireclay Co., Ltd., external faience ; Gillett and Johnson, Ltd., external clock and figures ; Mather and Platt, Ltd., revolving fire-proof shutters and automatic fire sprinklers ; Morris Singer Co., steel casements and bay and pavilion windows ; F. A. Norris & Co., Ltd., internal iron service staircases ; A. Sauvee & Co., Ltd., spiral conveyor and electric conveyor ; Troughton and Young, Ltd., restaurant electroliers ; United Water Softeners, Ltd., water softening plant ; Chas. Walker & Co., marble staircase and marble lift front and column casings ; Waygood-Otis, Ltd., passenger lifts, service lifts and escalators ; Drake and Son, shop front ; Drake and Son, Griffiths Bros., Ltd., and J. and A. Steane, Ltd., internal shop fittings.

Austin Reed, Ltd., Regent Street, W.1 : Red Lacquer Room (page 335). General contractors, Hall, Beddall & Co. Subcontractors : Harris and Sheldon, Ltd., shop-fitters ; Tyler and Freeman, electric light ; Breve's Lalique Galleries, electric fittings ; Jack Rubin, lacquer work.

Trade Marks Committee

The Trade Marks Committee, under the chairmanship of the Rt. Hon. Viscount Goschen, have begun their investigations. Persons and associations who wish to submit suggestions or to give evidence before the Committee should communicate with the Scretary, Mr. R. W. Luce, Industrial Property Department, Board of Trade, 25 Southampton Buildings, W.C.2.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The BERMONDSEY B.C. recommends proceeding with the erection of a clinic in Grange Road, and a solarium in Alscot Road, at a cost of £44,125.

The BERMONDSEY B.C. has passed estimates of £14,995 for the erection of 26 flats on the Redriff estate; and £38,621, for 69 flats in Albion Yard.

Plans passed by the COULSDON U.D.C.: 30 houses, Limpsfield Road, for Messrs. Bridges, Doran & Co.; 11 cottages, Gidd Hill, for Messrs. H. Bacon and Son, Ltd.; four shops and flats, Stoats Nest Road, for Messrs. Stanford & Co.; two houses, St. Andrew's Road, for Mr. W. Ingram.

Plans passed by the CROYDON Corporation: Three houses, Birchanger Road, for Mr. B. M. Brown; four houses, Cargreen Road, for Mr. E. F. Bates; four houses, Tavistock Road, for Mr. A. C. Easterbrook; alterations and additions, 50–52, Church Street, for Mr. H. Macintosh; 13 houses, Gloucester Road, for Messrs. Hooker and Rogers; 24 houses, Davidson Road, for Mr. F. Fowles, of 65, Sunnybank, S.E.; two houses, Ash Road, for Messrs. Chart, Son and Reading; additions, 377 Wickham Road, for Messrs. Waring and Nicholson; alterations and additions, "Crescent Arms" public-house, Whitehorse Road, for Mr. F. M. Kirby; six houses, Sandpits Lane, and three shops and flats, Upper Shirley Road, for Mr. T. G. Crump; factory extension, Canterbury Road, for Messrs. Wallis, Gilbert and Partners; factory, Selsdon Road, for Mr. E. Bates, of 27 Queen Victoria Street, E.C.4; five houses, The Glade, for Messrs. Wylie and Berlyn, Ltd.; two houses, Whitgift Avenue, for Mr. J. G. Cooper; 18 flats, Lower Addiscombe Road, for Messrs. Williams, Holiday and Partners; two houses, Hartland Way, for Mr. S. J. Hunt.

The CROYDON Corporation has prepared a scheme for the provision of accommodation for 492 persons on the Old Town and Whitgift sites, at a cost of £29,000.

Plans passed by the EALING Corporation: Five shops and flats, Ruislip Road, and six shops, Windmill Lane, for Morris Estates, Ltd.; blocks of 76 flats, Wordsworth Road, for Greenford Estates, Ltd.; 21 houses, Federal Road, for Messrs. Smirk and Sons; four houses, Wellmeadow Road, for Mr. W. Gardner; additions, 96 Uxbridge Road, for Messrs. Ley, Colbeck and Partners; additions, 3 Stuart Avenue, for Mr. W. H. Cheesewright; alterations, The Bridge, Uxbridge Road, for United Dairies, Ltd.; 20 flats, Eaton Rise, for Thorpe Hall Mansions, Ltd.; factory, Wadsworth Road, for Mr. John Batty; 96 houses, Empire Road, and Lynmouth Road, for Hillingdon Estate Co.; six houses, Perivale Lane, for Messrs. R. Lancaster and Sons; six houses, Abbey Terrace, for Messrs. Hart and Hardaker, Ltd.; three houses, Eastcote Avenue, for Messrs. Jones and Hill; block of flats, Popes Lane, for Messrs. Hoare and Wheeler.

The L.C.C. is to extend the isolation hospital accommodation at the Eastern Hospital at a cost of £19,860, and at the Western Hospital at a cost of £25,225.

Plans passed by the NORTHFLEET U.D.C.: Thirty houses (amended plans), Davis Avenue, for Messrs. R. Hopkins and Sons; 12 houses, Plane Avenue, for Mr. C. J. Howard; three houses Milroy Avenue, for Mr. R. A. Nicholas.

SOUTHERN COUNTIES

Plans passed by the WORTHING Corporation: Two houses, The Glen, Durrington, eight houses, Balcombe Avenue, alterations 106-8 Montague Street, for Mr. H. M. Potter; two houses, Salvington Road, for Messrs. Jordan and Cook, Ltd.; bakery extension, Chapel Road, for Mr. J. E. Lund; two houses, Charmandean Road, and five houses, Littlehampton Road, for Mr. M. R. Fletcher; two houses, Arundel Road, for Mr. C. Coul; hotel, Findon Road, for Mr. A. T. W. Goldsmith, on behalf of Portsmouth United Breweries, Ltd.; dance hall, shops, etc., Winton Lodge site, Chapel Road, for Mr. J. N. Keasley; ten houses, Savington Road, for Mr. R. Hasler; six houses, Salvington Road, for Mr. C. E. Sainsbury; two houses, Mardale Road, for Mr. J. Billam; dairy, Goring Road, for Mr. J. Edgar; employment exchange, Winton Place, for Mr. J. N. Keasley; six houses, Brougham Road, for Mr. A. T. W. Goldsmith; rebuilding Albion Hotel, Montague Street, for Messrs. Godman and Kay, on behalf of Messrs. Whitbreads, Ltd.

EASTERN COUNTIES.

Plans passed by the LOWESTOFT Corporation: Four houses, Kimberley Road, for Messrs. J. A. Gaze and Sons; 32 houses, Colville Road, for Mr. G. A. Gaze; additions, Hatfield Private Hotel, Esplanade, for Mr. J. Henderson; eight houses, Marlborough Road, Oulton Broad, for Mr. S. C. King; nine houses, Walmer Road, for Mr. D. Dowell.

MIDLAND COUNTIES

Plans passed by the CHESTERFIELD Corporation: Alterations, Corporation Street, for Halifax Building Society; two houses, Morris Avenue, for Messrs. J. Collis and Sons, Ltd.; two houses, Langer Lane, for Mr. C. L. Hoole; two shops, Baden-Powell Road, for Mr. C. E. Gaunt; house and shop, Walgrove Road, for Mr. G. Fairburn; two houses, Mansfeldt Road, for Mr. L. W. Crossley; two bungalows, Newbridge Lane, for Mr. A. Mowbray; two bungalows, Handley Road, for Mr. F. Durham.

The KIDDERMINSTER Corporation is preparing plans and specifications for improving the means of disposal of the sewage of the borough, and these will involve new pumps, new rising main and sedimentation tanks, and the utilization of a larger area of the Corporation farms.

The WALSALL Corporation is to construct roads on land at Leamore intended for the erection of 17 houses.

The WARWICKSHIRE C.C. is to provide a school for 400 infant children in the Shirley area of the Solihull district.

Plans passed by the WOLVERHAMPTON Corporation: Four bungalows, Rowan Crescent, for Mr. E. Leach; footbridge, Jeddo Street, for Messrs. John Marston, Ltd.; two houses, Oxbarn Avenue, for Messrs. Blackburn and Crossland; works extensions, Lower Stafford Street, for Leatherworkers, Ltd.; three bungalows, Langley Road, for Messrs. W. and A. Dalton; extensions, Mission Hall, Wadhams Hill, for Rev. Father Swift; two houses, off Stafford Road, for Mr. A. C. Phillips; alterations, 5, 6, 7, 8, 9 Worcester Place, for Wolverhampton and Dudley Breweries, Ltd.

The WORCESTERSHIRE Education Committee has purchased a site near Smithfield Market, Evesham, for the erection of a senior school.

NORTHERN COUNTIES

Messrs. Ralph Pieken & Co., Ltd., are to erect 34 houses in Bronte Old Road and Thornton Road, BRADFORD.

Plans passed by the CARLISLE Corporation: Lavatory block, Railway Street, for Messrs. Carr & Co., Ltd.; development of building estate, Waverley Road, for Messrs. Benwell and Slack, on behalf of Mrs. Newton; two houses, Blackwell Road, for Mr. J. Johnstone; four houses, Brampton Road, for Mr. H. E. Scarborough.

Plans passed at DEWSBURY: 12 houses, off Brunswick Street, for Mr. S. H. Greenwood; two houses, Leeds Road, for Messrs. E. Jones and Sons, Ltd.; six houses, Tinsell Road, for Mr. J. W. Thornton; 32 houses, Malvern Road, for Mr. A. Smith; 10 houses, Headfield Road, for the Ashfield Building Co., Ltd.; new roads off Tinsell Road and Bennett Lane, for the trustees of Savile (Yorks) Estate.

The DEWSBURY Corporation Parks Committee has approved plans for the layout and equipment of the children's recreation ground at Ravensthorpe, and authorized the parks superintendent to carry out the work at an estimated cost of £1,500.

The DOUGLAS (I.O.M.) Corporation has adopted a scheme of Mr. T. C. Greenfield for waterworks improvements and extensions, at a cost of £85,370.

The Ministry of Health has agreed to the scheme of the DURHAM County Council to provide accommodation for 360 mental defectives at School Aycliffe at a cost of £107,200, and the Board of Control is to be asked to allow the scheme to proceed.

The DURHAM County Surveyor has prepared plans for extensions and improvements at the casual wards at Easington, Durham, Bishop Auckland and Barnard Castle at a cost of £14,000.

The GRIMSBY Corporation is to construct a subway at the Weelsby Road level crossing, at a cost of £20,000.

Plans passed by the OSSETT Corporation: Shop and two houses, Dewsbury Road, for executors of George Senior; two houses, Kingsway, for Mr. H. Smith; conversion, Cross Keys Inn, to two houses, for Mr. J. H. Horsnell; 12 houses, Warneford Avenue, for Messrs. Hepworth and Moorhouse.

Plans passed by the STRETFORD U.D.C.: 10 houses, Hapton Avenue, for Messrs. Littler and Rich; 244 houses, Haigh Road, etc., for Messrs. McLellan and Abel; 18 houses, Dortree Road, for Mr. R. P. Wheeler; boiler house, First Avenue, for Universal Furniture Products Ltd.; dairy extension, New Shed Farm, for Trafford Estate trustees.

Plans passed by the STOCKTON-ON-TEES Corporation: Two houses, Westfield Crescent, for Mr. Thomas Holt; two houses, Oxbridge Lane, for Mr. G. P. Stainsby; two houses, Fairfield Road, for Mr. G. Crosby; two houses, Oxbridge Lane, for Messrs. R. W. Russell and Son.

The WAKEFIELD Corporation is to prepare plans for the erection of shops on the Eastmoor estate.

The WAKEFIELD Corporation is to interview the Ministry of Health regarding the proposal for the erection of 80 houses on the Darnley estate.

Plans passed by the YORK Corporation: Eight houses, Heworth Green, for Mr. H. Williamson; house and shop, Hull Road, for Mr. Bell; house and shop, Saxon Place, for Mrs. Longbottom; two houses, Sutherland Street, for Mr. F. Relton; two houses, Oakland Avenue, for Mr. G. H. Robinson; additions, St. Sampsons Square, for Messrs. W. P. Brown, Ltd.; additions, 18 Goodramgate, for Messrs. Melias, Ltd.; house and shop, and three houses, Albemarle Road, for Mr. J. Hetherton; six houses, Burton Grange Road, for Mr. A. Temple; four houses, Grantham Drive, for Gutch trustees; two houses, Hull Road, for Millfield Estate Co.; licensed premises, Osbaldwick Lane, for John Smith's Tadcaster Brewery Co., Ltd.; ten houses, Temple Avenue, for Messrs. Cowling and Swift.

WALES

Plans passed by the NEWPORT (Mon.) Corporation: Ten houses, Parfitt Street, for Mr. J. G. Dowden; two flats, Canal Parade, for Mr. I. R. Richards; alterations, Corporation Road, for British Mannesmann Tube Co., Ltd.; alterations, High Street and Skinner Street, for Messrs. Montague Burton, Ltd.; cinema entrance and shops, Chepstow Road, for Mr. Howard Williams, on behalf of West of England Cinemas Co., Ltd.; shops, extensions and two flats, Christchurch Road, for Mr. T. E. Llewellyn; two shops, Bridge Street, for Mr. C. E. Tebbs; two houses, Conway Croft, for Messrs. T. Addis and Son, Ltd.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid. Counties	1 4½	1 0½
B_3	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent ..	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S. Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay ..	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A_3	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote ..	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth ..	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells ..	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A_3	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	„		1	7
Joiner	„		1	7
Machinist	„		1	8
Mason (Banker)	„		1	7
„ (Fixer)	„		1	8
Plumber	„		1	7
Painter	„		1	6
Paperhanger	„		1	6
Glazier	„		1	7
Slater	„		1	7
Scaffolder	„		1	3
Timberman	„		1	3
Navvy	„		1	2¼
General Labourer	„		1	2¼
Lorryman	„		1	5
Crane Driver	„		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2" Broken Brick	„		9	6
¾" „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, Add	„	2	0	0
„ Other Colours	„	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" „ „ „	„		1	11
3" „ „ „	„		2	2
4" „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ Sawn templates	„	7	6
„ Paving, 2"	F.S.	1	8
„ „ 3"	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	„	26	0	0
20" × 10" Countesses	„	19	5	0
18" × 10" Viscountesses	„	15	17	6
18" × 9" Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		26	0	0
„ green „	„	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾"	Sq.		19	0
„ ⅞"	„	1	1	6
„ 1"	„	1	3	6
„ 1⅛"	„	1	7	6
„ 1¼"	„	1	12	0
Deal matchings, ½"	„		14	0
„ ⅝"	„		15	6
„ 1"	„	1	4	0
Rough boarding ¾"	„		16	0
„ 1"	„		18	0
„ 1¼"	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2′–14′ long, per ft.run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3"–11½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

TUBES	Per cent.		Per cent.
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ¼"	„	8	6
„ „ ⅜"	„	8	3
„ „ ½"	„	8	0
„ „ ⅝"	„	7	6
„ „ ¾"	„	7	6
„ „ 1"	„	7	6
„ „ 1¼"	„	7	6
„ „ 1½"	„	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9" offsets	„	4	0	6	3
Plinth bends, 4½" to 6"	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.	s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.		2⅞
„ „ 26 oz. „ „ „	„		3¾
Arctic glass, white	„		7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„		6½
¼" Hartley's rough rolled	„		7
¼" „ wired cast	„		10
¼" Georgian wired cast	„		11
¼" Polished plate, n/e 1 ft.	„	†7½ to	‡1 0
„ „ 2	„	†10 „	‡1 3½
„ „ 3	„	†1 4½ „	‡1 10
„ „ 4	„	†1 11 „	‡2 4
„ „ 6	„	†2 3 „	‡2 7½
„ „ 8	„	†2 5 „	‡3 0½
„ „ 12	„	†2 10 „	‡3 3½
„ „ 20	„	†3 3½ „	†3 9
„ „ 45	„	†3 6½ „	‡4 0½
„ „ 65	„	†3 11½ „	‡4 4
„ „ 90	„	†4 4 „	‡4 9
„ „ 100	„	†4 6 „	‡4 11
Vita glass, sheet, n/e 1 ft.	„		1 0
„ „ „ 2	„		1 3
„ „ „ over 2	„		1 9
„ „ plate, n/e 1 ft.	„		1 6
„ „ „ 2	„		3 0
„ „ „ 5	„		4 0
„ „ „ 7	„		5 0
„ „ „ 15	„		6 0
„ „ „ over 15	„		7 6
Putty, linseed oil	lb.		3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		15	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		3	0
,, to reduce levels n/e 5′ 0" deep and cart away		Y.C.		9	0
,, to form basement n/e 5′ 0" deep and cart away		,,		9	6
,, ,, 10′ 0" deep and cart away		,,		10	0
,, ,, 15′ 0" deep and cart away		,,		10	6
If in stiff clay	add	,,		3	0
If in underpinning	,,	,,		5	0
Digging, return, fill and ram	,,	,,		4	6
Planking and strutting to sides of excavation		F.S.		1	0
,, ,, to pier holes		,,			6
,, ,, to trenches		,,			6
,, ,, extra, only if left in		,,			3½
Hardcore, filled in and rammed		Y.C.		10	9
Portland cement concrete in foundations (6-1)		,,	1	9	6
,, ,, ,, (4-2-1)		,,	1	14	6
,, ,, ,, underpinning		,,	1	18	0
Finishing surface of concrete, spade face		Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ¼" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	6	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

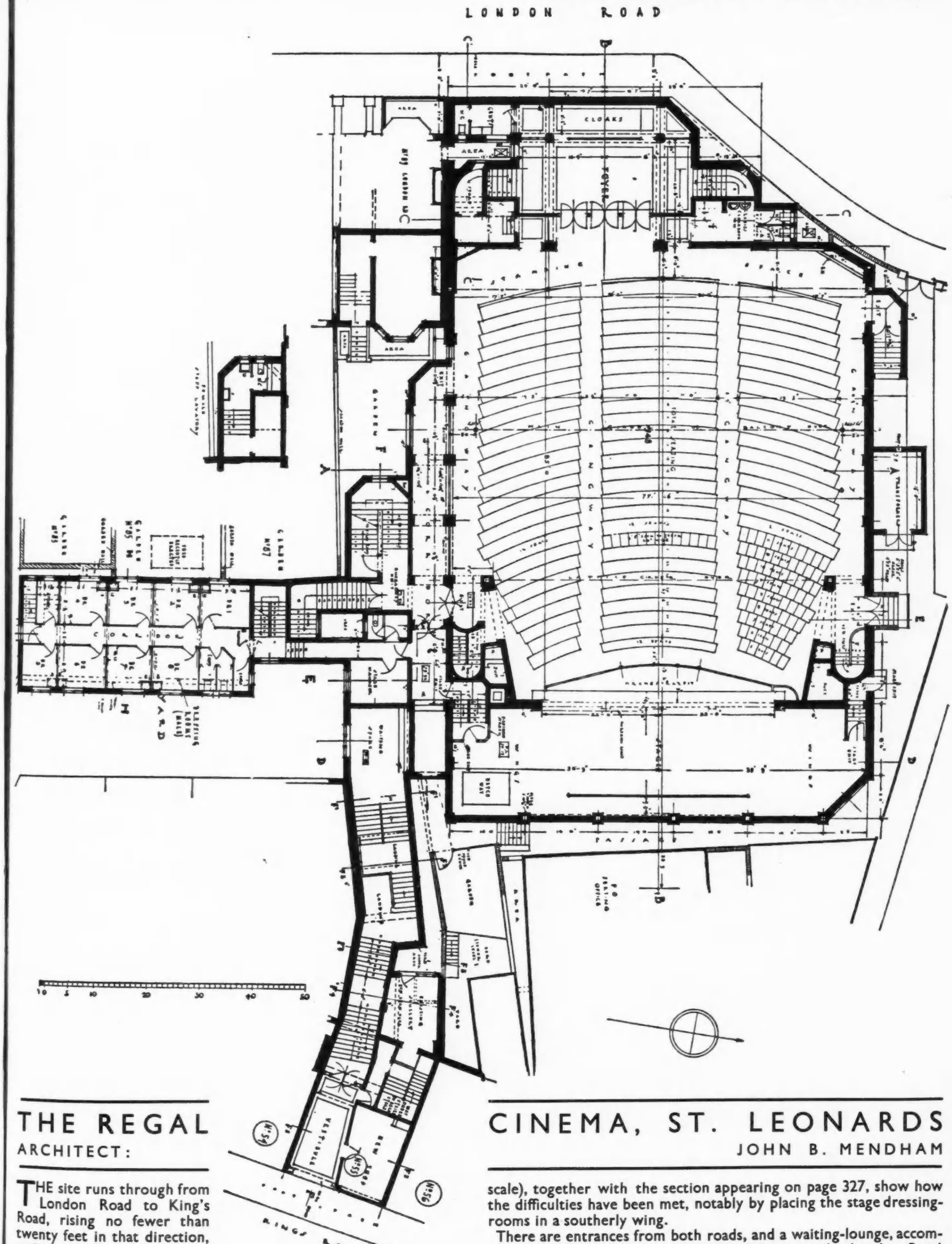
		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . from	,,	2	9

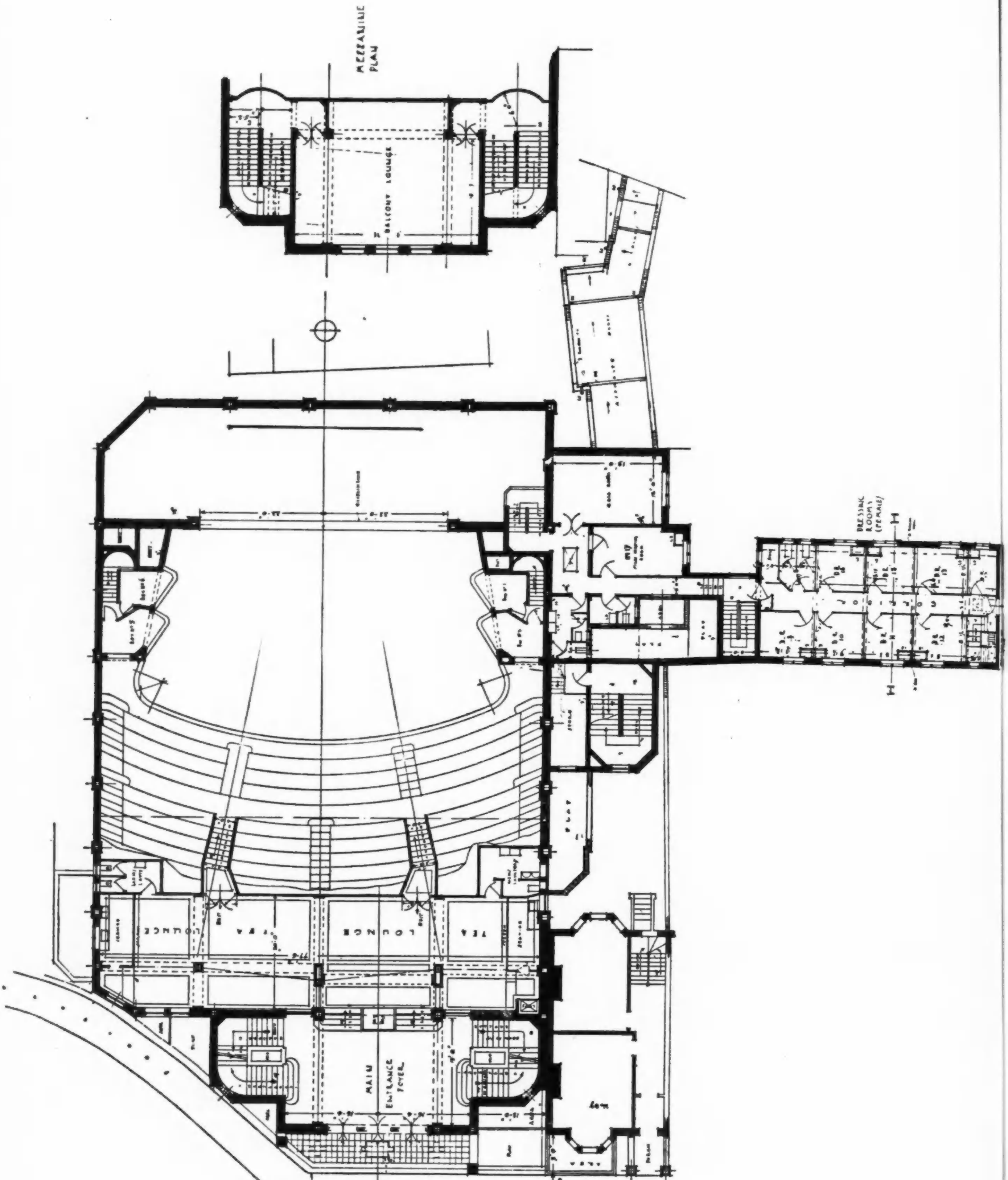

LONDON ROAD
CLOAKS
FOYER
AREA
GANGWAY
STAGE
PASSAGE
YARD
KINGS ROAD
10 5 0 10 20 30 40 50

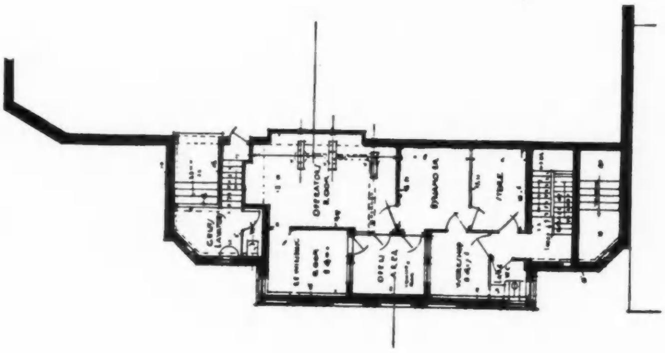
THE REGAL CINEMA, ST. LEONARDS

ARCHITECT: JOHN B. MENDHAM

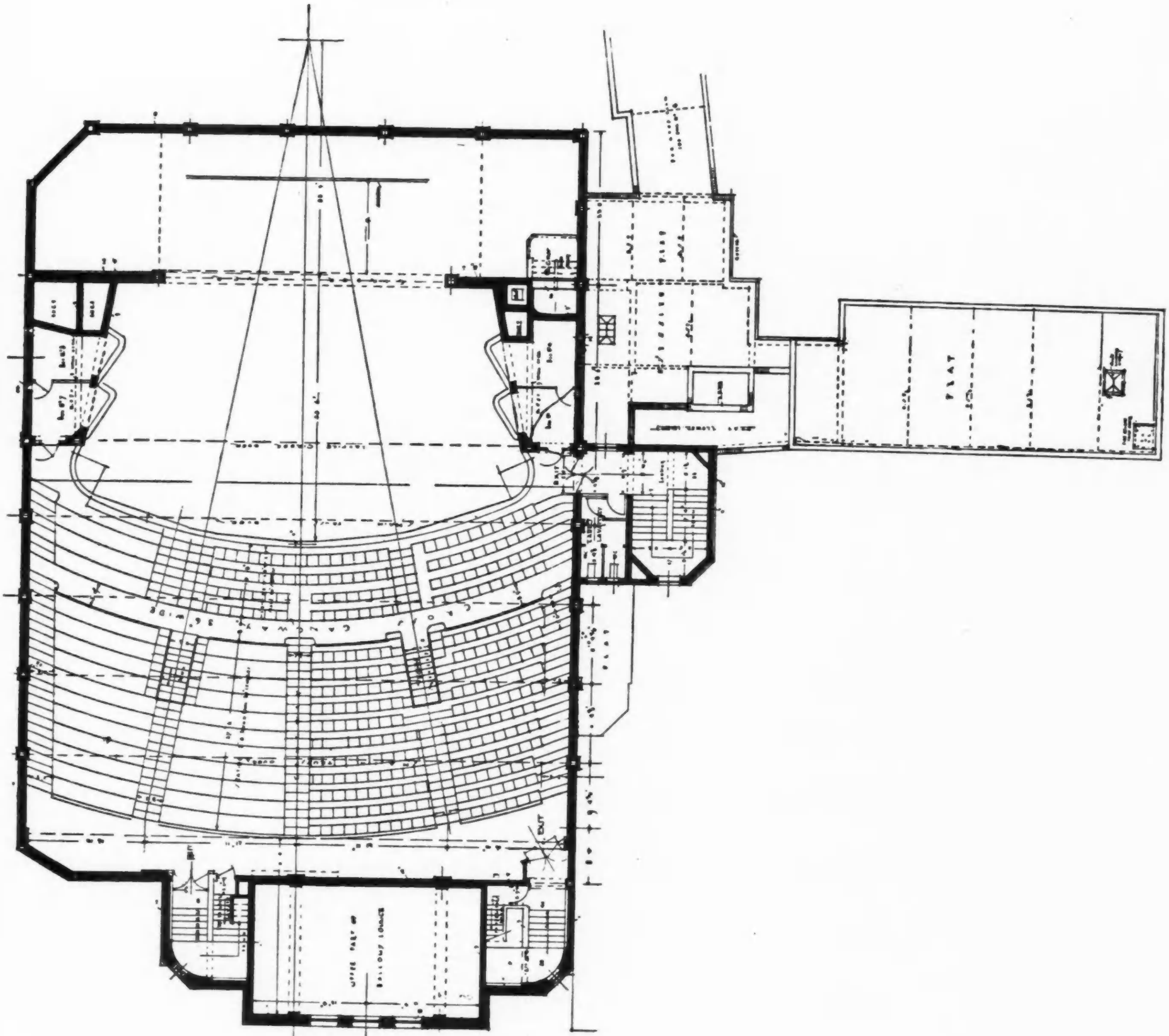
THE site runs through from London Road to King's Road, rising no fewer than twenty feet in that direction, and is very irregular in outline. The plans reproduced above and within (all to the same scale), together with the section appearing on page 327, show how the difficulties have been met, notably by placing the stage dressing-rooms in a southerly wing.

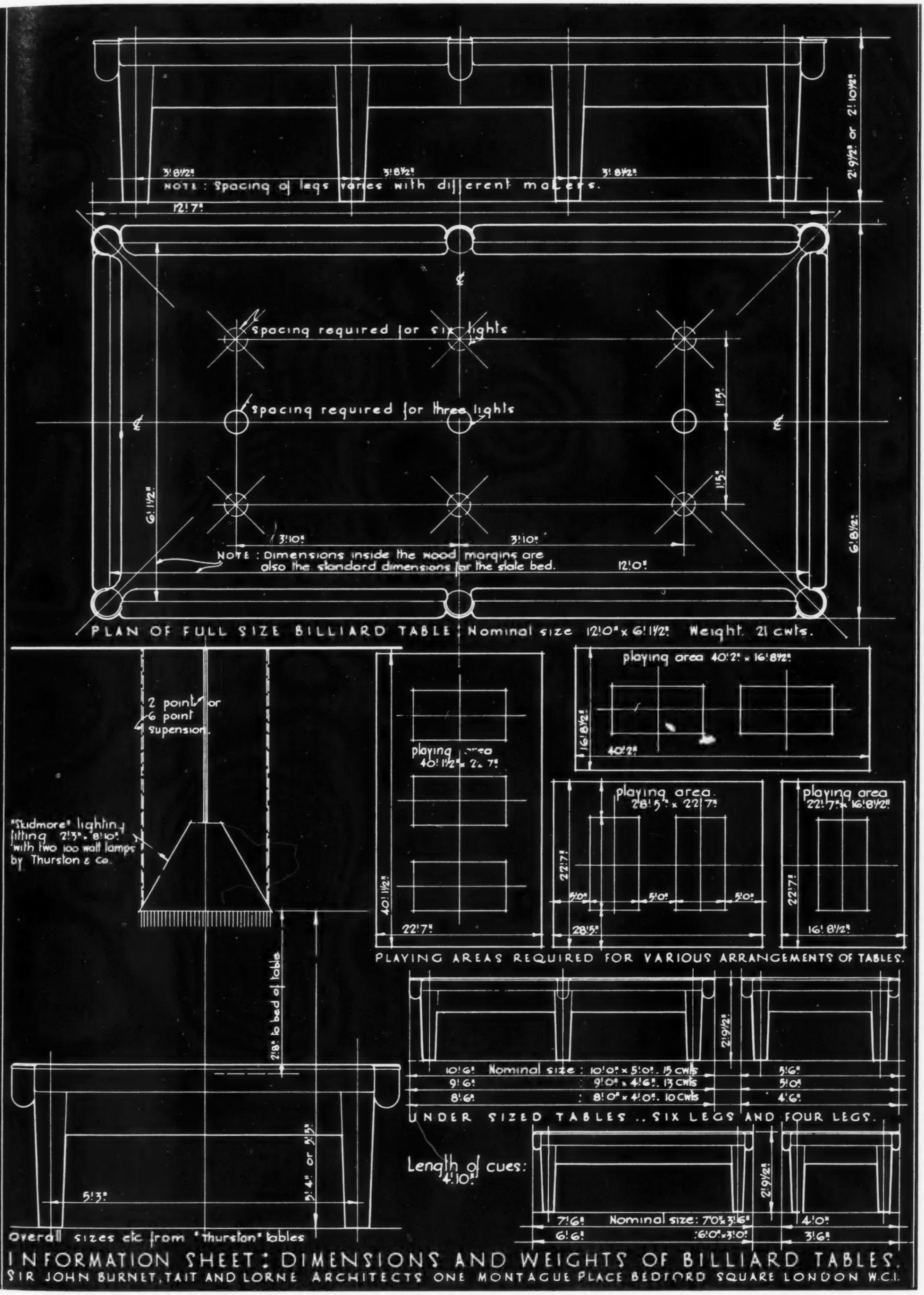
There are entrances from both roads, and a waiting-lounge, accommodating 250-300 persons, under the balcony at the London Road front. The theatre seats 1,600 people. Photographs appear in the body of this issue.


MEZZANINE PLAN
BALCONY LOUNGE
DRESSING ROOMS (FEMALE)
STORE
TEA
LOUNGE
TEA
LOUNGE
TEA
MAIN ENTRANCE FOYER
LONDON ROAD


OPERATOR'S ROOM
DYNAMO RM
STORE
REWINDING ROOM
OPEN AREA
WORKSHOP
GENTS LAVATORY

OPERATING FLOOR


FLAT
GANGWAY
EXIT
UPPER PART OF BALCONY LOUNGE


3' 8½"
3' 8½"
3' 8½"
NOTE: Spacing of legs varies with different makers.
12' 7"
2' 9½" or 2' 10½"
℄
Spacing required for six lights
Spacing required for three lights
1' 5"
1' 5"
6' 1½"
6' 8½"
3' 10"
3' 10"
NOTE: Dimensions inside the wood margins are also the standard dimensions for the slate bed.
12' 0"
PLAN OF FULL SIZE BILLIARD TABLE: Nominal size 12' 0" x 6' 1½" Weight 21 cwts.
2 points or 6 point supension.
"Skidmore" lighting fitting 2' 3" x 8' 10" with two 100 watt lamps by Thurston & Co.
2' 8" to bed of table
5' 4" or 5' 5"
5' 3"
Overall sizes etc from "Thurston" tables
playing area 40' 1½" x 22' 7"
40' 1½"
22' 7"
playing area 40' 2" x 16' 8½"
16' 8½"
40' 2"
playing area 28' 5" x 22' 7"
22' 7"
5' 0"
5' 0"
5' 0"
28' 5"
playing area 22' 7" x 16' 8½"
22' 7"
16' 8½"
PLAYING AREAS REQUIRED FOR VARIOUS ARRANGEMENTS OF TABLES.
2' 9½"
10' 6" Nominal size: 10' 0" x 5' 0". 15 cwts
9' 6" : 9' 0" x 4' 6". 13 cwts
8' 6" : 8' 0" x 4' 0". 10 cwts
5' 6"
5' 0"
4' 6"
UNDER SIZED TABLES .. SIX LEGS AND FOUR LEGS.
Length of cues: 4' 10"
2' 9½"
7' 6" Nominal size: 7' 0" x 3' 6"
6' 6" : 6' 0" x 3' 0"
4' 0"
3' 6"

INFORMATION SHEET: DIMENSIONS AND WEIGHTS OF BILLIARD TABLES.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.I.

INFORMATION SHEETS • 8 • BILLIARD TABLE DATA

INFORMATION SHEETS

• 8 •

BILLIARD TABLE DATA

•

THIS week's Information Sheet again covers a field in which information may be required by the architect at any moment, and must be comprehensive to be of any use. It meets both needs, giving him on one piece of paper figures as to weight, sizes and playing areas of billiard tables, which would occupy some hours of research. did he undertake it personally.

The drawings from which all these Information Sheets are reproduced originated in the office of Sir John Burnet, Tait and Lorne. Far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, thus placing the whole profession in their debt, and incidentally furnishing the student of fine draughtsmanship with specimens for emulation.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

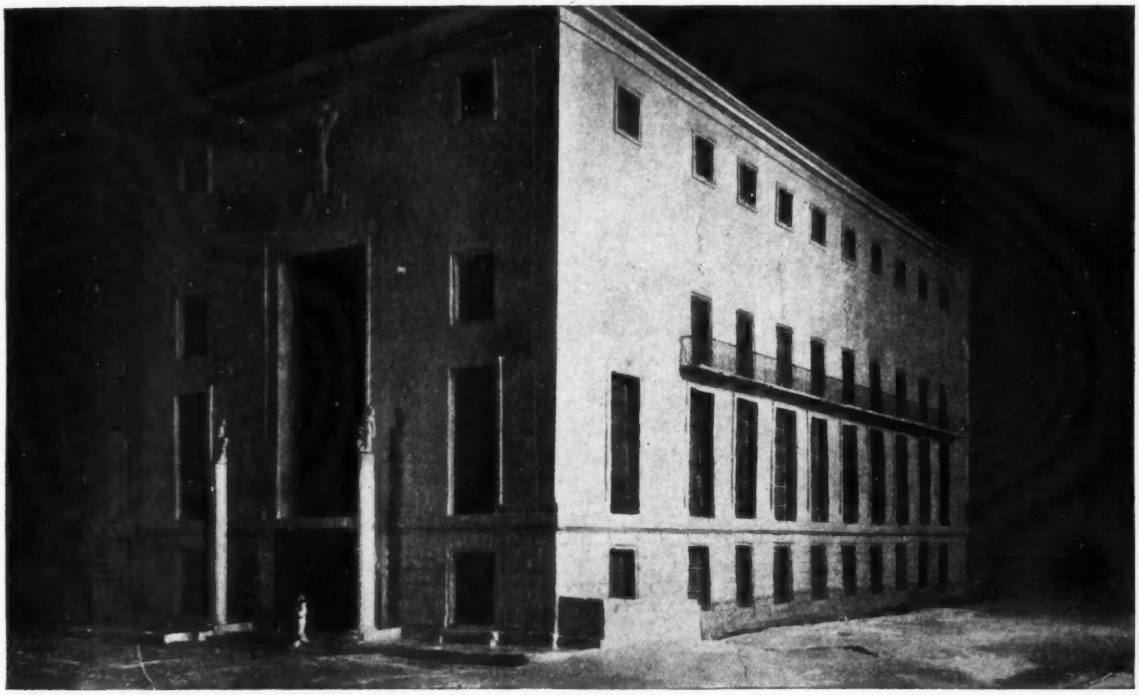
Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

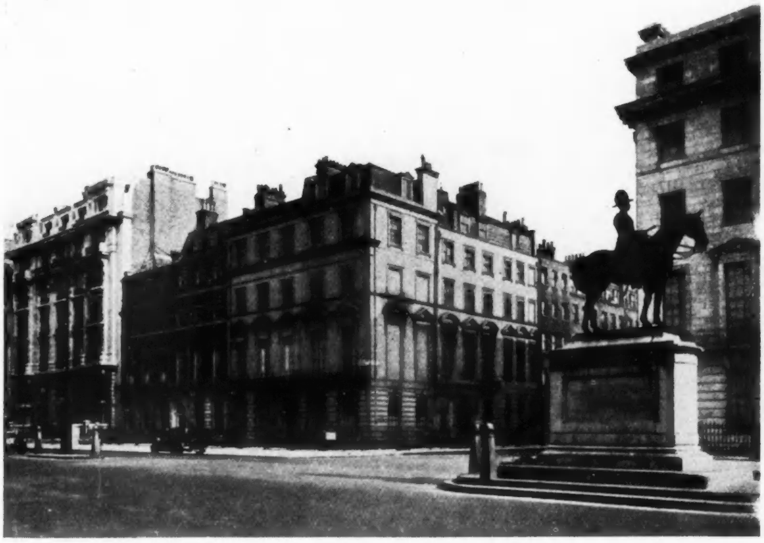
The following is a list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.

THE R.I.B.A. NEW PREMISES

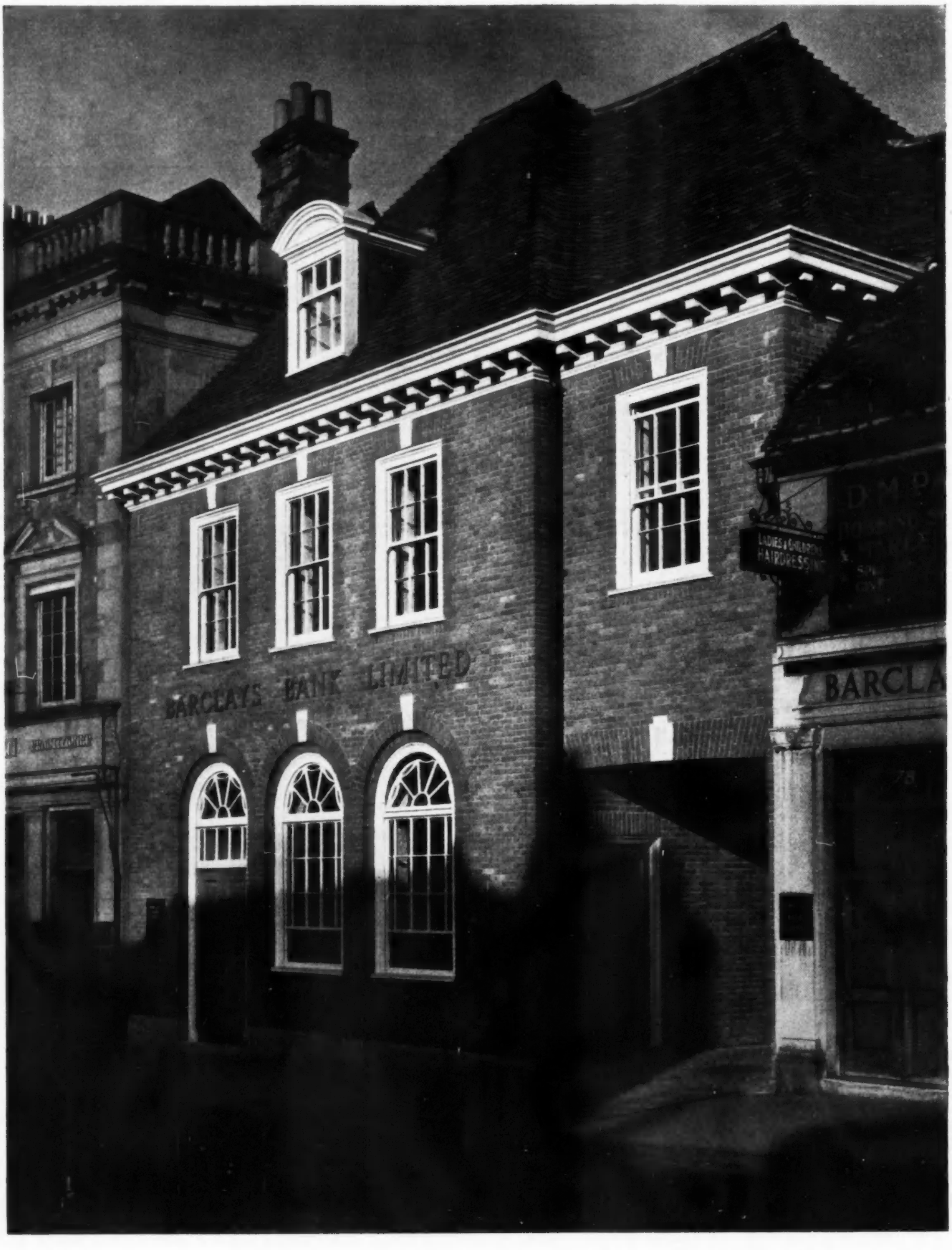
MODEL OF THE BUILDING : AND THE SITE





The above model of the new R.I.B.A. building, from the revised design of Mr. G. Grey Wornum, F.R.I.B.A., with sculptured decoration by Mr. Bainbridge Copnall, has received the approval of the Council of the Institute. Tenders for the steelwork have already been received and the contract has been placed. Building contractors are to be invited to send in their names for consideration. It is expected that they will be asked to submit tenders by the end of May.

The site of the new premises, on the east side of Portland Place, with a frontage to Weymouth Street, is also illustrated. Tenders for the demolition of the existing buildings on the site—one of which, however, has now been incorporated in Mr. Wornum's design—have not yet been considered, but it is hoped that the new premises will be completely finished and ready for occupation before the end of 1934.

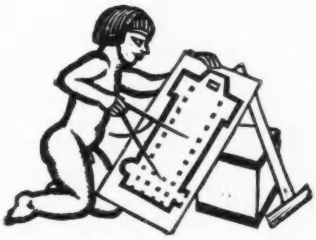


BANK AT SEVENOAKS

By

Mitchell and Bridgwater

The fact that Redman's Passage, the right-of-way for pedestrians and lorry traffic shown in this view, had to be kept made the design of this façade difficult. The front to High Street is faced with a rather bright but rough cherry-red brick, with slightly darker bricks for the quoins. The gilded letters give it a note of richness. The name plates below are very carefully designed. Special attention has also been given to the lettering on the lower half of the windows. All the woodwork except the front and side doors is cream-coloured. These doors are stippled bright green. The roof is tiled. Further illustrations, plans and particulars appear on pages 364–5.



THE CASE FOR PUBLIC WORKS

HAVING examined in some detail in two previous leading articles the principles on which the employment value of schemes of public works may be computed, we are now in a position to put forward what may be termed a case for public works.

We have already pointed out, in our leading article of March 1, that the statement that a policy of public works adds more to liabilities than to assets is incorrect. Last week we came to the conclusion that the net cost of employing three men for a year—one man in public works, a second making materials and a third making food and clothing—is only £231, while work to the value of £400 is done on the public works.

During the last seven years some £250,000,000 have been spent on public works, £90,000,000 on roads and £160,000,000 under the Development Acts. Of the latter sum, grants under the Lewis Committee amounted to £40,000,000 and grants under the Unemployment Grants Committee to £120,000,000.

Schemes assisted by the last Committee are of three kinds—non-loan schemes, revenue-producing loan schemes, and non-revenue-producing loan schemes. The first type of scheme is practically negligible, being only about 5 per cent. of the total. The second type—revenue-producing schemes—forms about 35 per cent. of the total, and covers a large number of kinds of work. The third type—non-revenue-producing schemes—forms about 60 per cent. of the total.

The view, which seems to be fairly widely held in certain quarters, that expenditure on such schemes represents so much money poured down the drain, so to speak, is thus not correct. Some 35 per cent. of expenditure on these works is directly and immediately remunerative. The remaining 65 per cent., although not directly remunerative, covers much necessary work, such as sewers and sewage disposal, sea defence and river improvement, water, sanitation and land reclamation. A certain amount of road work is also assisted by the Committee.

Thus, of work assisted by the Unemployment Grants Committee, the greater portion is either directly remunerative or necessary in the interests of public health, etc. The work assisted by the Lewis Committee is, on the average, similar in nature to that assisted by the Unemployment Grants Committee, and the same argument applies.

The remaining schemes, forming the total of £250,000,000 spent on public works in the last seven years, are road works under the Ministry of Transport. With regard to the remunerative character or the necessity of these works, nothing can be said without a detailed examination of each particular scheme. It is obvious, however, that these schemes, drawn up or approved by the Ministry of Transport, were not merely works of doubtful utility, but were really necessary.

Practically all assistance to schemes of the kind discussed has now ceased. The Unemployment Grants Committee has adjourned *sine die* and other assistance has either ceased or has been drastically curtailed. Yet some 15 per cent. of this work is definitely and immediately remunerative, and most of the remainder is of a necessary, not to say urgent, character. Further, as we pointed out last week, employment on every £400 worth of such work employs three men for a year at a net cost of only £231.

What would be the effect of continuing expenditure on these schemes at the former rate of about £36,000,000 a year? In the first place, some £9,000,000 would probably go in land and other charges and £11,000,000 of the remaining £27,000,000 would go to provide direct employment for some 91,650 men for a year. This would entail employment for an equal number of men to supply them with materials, making the total direct and indirect employment created 183,300 men for a year. To this must be added employment for about 91,650 men making food and clothing. Not all this employment, however, would be additional, as the 91,650 men directly employed would draw unemployment benefit if unemployed and would thus have some purchasing power. At the rate of £1 per week, this represents a demand for food, clothing, etc., amounting to £4,765,800 in the year and employing some 15,886 men. The increase in employment in the food, etc., industries is thus 75,764, and the total net employment created amounts to 259,064 men-years.

The net cost of such a programme of public works at the present time would therefore be quite small. In the first place, we may deduct from the total of £36,000,000 the revenue-producing schemes, regarding them as in the nature of self-balancing items. This reduces the cost by 15 per cent. to £30,600,000.

Then a saving of £14,600,000 to the unemployment fund must be deducted. This is made up of a saving on benefit at £1 per week of £13,471,000, and a saving in employers' and employees' contributions at 10d. per week each of £1,123,000. This reduces the net cost of the scheme to £20,000,000.

Thirdly, an allowance must be made for the increased yield of taxation which will result from increased expenditure. Mr. J. M. Keynes has estimated that an expenditure of £30,000,000 in the Building Industry would increase the national income by £60,000,000. He further estimates that, on the average, 20 per cent. of income is taken in taxation. But most of the men employed on a scheme of public works would be below the exemption limit for income tax, though that is, of course, not the only form of taxation. To be on the safe side, therefore, we may estimate the increased yield of taxation as a result of the scheme at 10 per cent.* of the increased national income, or £6,000,000.

The total net cost of doing £36,000,000 worth of work is thus £14,000,000.

And what is the cost of postponement?

For every year these schemes are postponed, the net saving which would accrue if they were put in hand forthwith becomes a net, unproductive burden. In order to postpone these schemes, some 259,000 men must be kept in idleness for the period of postponement.

Thus, if these schemes are postponed for one year, the total cost of getting the £36,000,000 worth of work done will be £36,000,000 (assuming that building and construction costs have not risen), *plus* a loss of £14,600,000 to the unemployment fund—a total of £50,600,000.

Surely, the moral is obvious.

[* *This was written before the publication of Mr. Keynes's first article in "The Times" for Monday, March 13. It is interesting to see that he himself—quite independently, but for similar reasons—has arrived at the same figure, i.e., 10 per cent.*—ED., *A.J.*]

NOTES & TOPICS

ARCHITECTURE AND ENGINEERING

FINDING myself by chance in Sheffield last Thursday, and learning from a local architect friend that Professor J. Husband was to lecture that evening to the Sheffield and South Yorks. architects on "The Architecture of Engineering Structures," I decided to stay the night and attend.

*

After the lecture, I cunningly borrowed his notes and made from them the following abstracts :—

> Since all external works are exposed to the public view, the expression of public opinion will naturally vary widely according to the preferences, temperament and training of would-be critics. Thus, an artist will seize on form, colour, light and shade effects, an architect on faithfulness to style and sound proportion, whilst an engineer pure and simple will concentrate more particularly on suitability of material, principle of design and details of construction, which latter are quite frequently uncomprehended by the lay observer. Who, then, is a competent critic? The great mass of untrained observers will probably more or less superficially regard such works and according as a fleeting impression, pleasing or otherwise, is created, pass on their way with a nebulous impression that the work is beautiful, merely satisfactory, or ugly. Even amongst trained observers what may be adjudged as highly commendable and pleasing by one will often be denounced as ugly and unsuitable by others.
>
> Many engineering works are of such magnitude and are required to endure for such long periods of time, that a great moral responsibility rests upon their designers—much greater than in the case of more ephemeral works which, if unsightly, will at least be removed after a short lapse of time. Unfortunately, the ephemeral works are greatly in the majority, embracing, as they do, the great mass of residential and industrial buildings in our towns.
>
> In engineering projects, more so than in purely architectural works, the bulk of the available money is generally expended on the utilitarian necessities of the work, and little or none remains for the creation of artistic effect, although there are not lacking examples in which an excess of funds has resulted in the over-lavish application of undesirable ornament.

*

WHAT OF THE SLATE ?

Which is the fouler, a purple slate or a cheap red tile? A difficult question, my masters.

*

I would but say that cheap red tiles look bad with anything, but that slates, nearly the worst of slates, look passable with colour-washed walls.

*

But in both articles it is the tiresome nineteenth-century love of precision that steals charm away, especially where a jerry builder's love of repetition and a quick sale leaves little enough charm to start with.

*

But what are the economics of slate selling? Are the thin, accurately-squared horrors really the cheapest to produce and market, or is it only the end of a period of debased taste that keeps them hanging on?

*

DESIGNING FOR INDUSTRY

The Design and Industries Association, at their annual general meeting last Thursday, reviewed the results of a year's operation under their plan of intensive working. They were able to point to a surprising body of work accomplished for a not-too-richly-endowed body, the launching of a new monthly paper under the auspices of the publishers of *The Week End Review* being pure solid accomplishment of an important element of the plan.

*

The idea was to publish two or more numbers of their journal, treating of D.I.A. matter in concentrated essence and in a new way. Each number was entirely sold out, and the D.I.A. was able to choose between two offers of publication.

*

The first number of *Design for To-day* will appear shortly under the editorship of Mr. Noel Carrington.

*

I like a general meeting that ends, as this one did, with a diversion. Mr. Frank Pick's diversion offered us the choice of two lantern slides shown simultaneously on two screens : Art and Nature : Bad Art and Good Art ; Victorian and Modern ; and so on.

I don't think enough people know of the D.I.A.

*

WHERE DO I STAND IN NEW EUROPE ?

I am not so certain where I stand with an organization such as that which calls itself the New Europe Group and issues a magazine *New Britain*, as a first step, I presume, towards federation.

*

I gather that its activities are both political and cultural and that its aim is the breaking down of national barriers through community of purpose and interest, as one might say that our own understanding of German architecture

THE ARCHITECTS' DIARY

Wednesday, March 15

R.I.B.A., 9 Conduit Street, W.1. "Where Londoners Live." By A. S. G. Butler, F.R.I.B.A.. 6 *p.m.* Also, exhibition of architects' working drawings. 10 *a.m. to* 8 *p.m.*

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. "The Shakespeare Memorial Theatre." By G. A. Jellicoe, A.R.I.B.A. 6 *p*

CONFERENCE FOR ARCHITECTS ON ELECTRIC LIGHTING, At 2 Savoy Hill, W.C.2. "Floodlighting." By H. Lingard. Discussion to be opened by Howard Robertson, F.R.I.B.A. 7 *p.m.*

INSTITUTION OF CIVIL ENGINEERS, Gt. George Street, S.W.1. "Capacity of Piles to Carry Loads and Resist Lift." By Ernest Latham, M.INST.C.E. 6 *p.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—IX." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "A General Survey of Metallic Arc Welding, with particulars of some Welded Products." By D. G. Sinfield. 7.45 *p.m.*

POSTER ART EXHIBITION, arranged by the L.N.E. Railway Co. *At the Burlington Galleries, Burlington Gardens, W.1.* To be opened by the Hon. Oliver Stanley (Minister of Transport). 2.15 *p.m.*

Thursday, March 16

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At the College of Art, Leeds. "Modern Sculpture." By William Amonier. 7 *p.m.*

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.1. "Trial Excavations in the so-called Danish camp at Warham, near Wells, Norfolk." By H. St. George Gray, F.S.A. 8.30 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. *At Leeds.* "Rustless Steels." By C. Cyril Hall. 7 *p.m.*

GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "The World's Beautiful Woods." By W. C. Potter. 7.30 *p.m.*

Friday, March 17

INSTITUTION OF STRUCTURAL ENGINEERS. Annual dinner, to be held at the *May Fair Hotel, W.1.* 6.45 for 7.15 *p.m.* 6.45 *p.m.*

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. A Talk on Architecture. By Arnold Mitchell. 5 *p.m.*

Saturday, March 18

Sunrise 6.8 a.m. Sunset 6.8 p.m.

Monday, March 20

R.I.B.A., 9 Conduit Street, W.1. "Recent Developments in Buildings." By Dr. Oscar Faber, O.B.E. 8 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Welding and Allied Processes for Engineering Purposes—III." By Arthur Stephenson, M.I.MECH.E. 8 *p.m.*

ARCHITECTURAL ASSOCIATION. At 34 Bedford Square, W.C. Joint Meeting with the Junior Institution of Engineers. "The Engineer." By C. O. Mourant, M.I.STRUCT.E. "The Architect." By H. S. Goodhart Rendel, F.R.I.B.A. 8 *p.m.*

Tuesday, March 19

INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch. *At 15 Rutland Square, Edinburgh.* "Railway and Road Construction at Home and Abroad." By Captain D. Robins. 7.30 *p.m.*

bound us to that harassed people where there might be nothing but fear and mistrust between us.

*

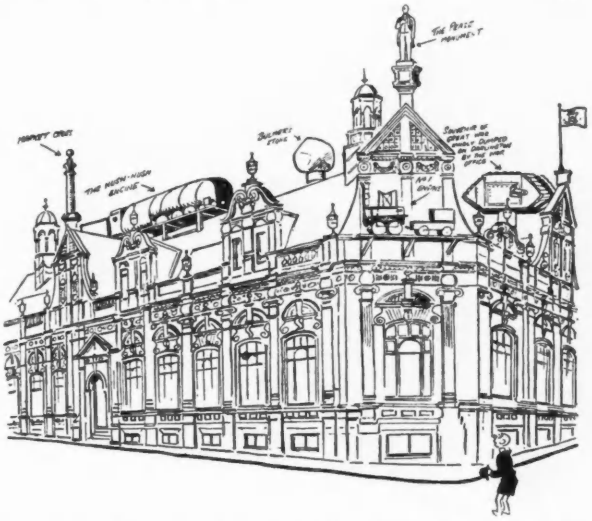
But, Lord, how difficult it all is! With times so out of joint rash remedies appear like poppies on a railway embankment.

*

A PANACEA FOR DEPRESSION

I have been put in possession of a manifesto, an *epochal* manifesto, its author calls it, in which it is urged that the "only sure, effective and unmistakable cure for the depression is the complete State ownership and control of all natural resources, for production and their distribution" . . . and that "if our governments will, this depression can be eliminated and normal life established in less than a month's time . . . "

*

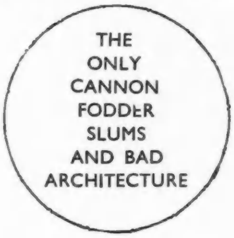


Sermons in Stones: A few suggestions by an artist in "The Northern Despatch" for enhancing the dignified austerity of Darlington's latest public building. The market cross is included, because of the suggestion recently made that a suitable place for it would be in the new library extensions.

*

CANNON FODDER!

Yet another sign of the times and of the "ungodly" press! Below is the badge of Liverpool School of Architecture students that attended the Anti-War Conference held at Bermondsey last week. That conference, crowded, enthusiastic and representative of *real* interests, was entirely unreported by the daily press, which would seem by inference to support war. It is not at all a nice world we live in.



WHAT IS ARCHITECTURE?

I have just come across some brilliant definitions of architectural styles from the pen of that knowing fellow Convolvulus, of *The Sketch.* Quotation isn't a fair method, but here are some gems :—

*

> Victorian : This is a very grand architecture indeed. There is no point in keeping old Gothic, Tudor, Jacobean, classical and so forth when Victorian architecture gives you them all in one, and still as good as new, with a lot of jolly ornaments thrown in. None of it is ever likely to fall down, and as long as it stands England will remain what she is. She deserves it.

Or again :—

> Modern : The principle of modern architecture is to make everything look like something else. . . To build a modern building all you have to do is to take a look at an old building and build it four times the size in the wrong materials with a baker's dozen (or Lutyen's dozen or Blomfield's dozen) of columns, double columns, gables, statues, pylons, pedimenta and impedimenta stuck on the front. The result is very imposing.
>
> But I'm not sure we haven't been imposed on long enough.

Nor am I.

ASTRAGAL

NEWS

●

POINTS FROM THIS ISSUE

- *The total net cost of doing £36,000,000 worth of Public works is £14,000,000* 353
- *—But if these schemes are postponed for one year the total cost will be £36,000,000 plus a loss of £14,600,000 to the unemployment fund—a total of £50,600,000* 353
- *The fallacy that herding is ignoble led the garden city movement down their garden path* 366
- *The slum problem cannot be solved without the expenditure of public money* 366
- *The days for submitting work for this year's Royal Academy* 367
- *The danger of catching influenza in buildings where adequate balanced systems of ventilation are installed is practically non-existent* 376
- *The most highly-paid man on the building in America is the man who works the hoist* 376
- *In sixty years the average annual rate of persons affected by the demolition of slums has been less than 3,000* .. 377

●

EXHIBITION OF BRITISH INDUSTRIAL ART

The Exhibition of British Industrial Art in Relation to the Home will be held at Dorland Hall, Lower Regent Street, S.W.1, from June 20 to July 12.

The aim of the Exhibition is to demonstrate that the British Industrial system can produce well designed goods suitable to modern conditions. The goods exhibited, therefore, will be chosen from the best work of manufacturers and designers and will be chiefly the products of industrial processes which are retailed at a reasonable price.

The Committee wish the Exhibition to be thoroughly representative of British industrial art, and so examples from as many fields as possible will be selected, provided that they bear some relation to the design and equipment of the home.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,256/11/10. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

MR. KEYNES, "THE TIMES," AND "THE ARCHITECTS' JOURNAL."

The argument set forth at length in the leading articles in the JOURNAL for the last two issues and completed this week* has received most interesting confirmation at the very moment of going to press from an article in *The Times* for Monday, March 13, by no less an authority than Mr. J. M. Keynes.

He starts with the "Treasury view" that it requires a capital expenditure of £500 to employ one man for a year. By a series of deductions he arrives at a figure of £133 to employ each man. In our articles we started from the opposite end. We took an actual expenditure and examined the effects quantitatively step by step, and concluded that an expenditure of £400 would employ three men for a year. This gives an average per man of £133, exactly the same figure as that arrived at by Mr. Keynes on a different line of reasoning.

The second important point dealt with both by Mr. Keynes and in our articles was the effect on the national income and the relief to the Exchequer arising from a given capital expenditure. Mr. Keynes assumes that a given capital expenditure would increase the national income by 1½ times the amount of the original expenditure. He takes this figure for the purposes of calculation, but states that he believes this to be an under-estimate. In our articles we took a multiple of two for this purpose. This is the sole point upon which our figures disagree with those of Mr. Keynes's. Mr. Keynes then assumes a figure of 10 per cent. as the proportion of the increased national income going in taxation, and concludes that the total benefit to the Exchequer is about two-thirds of the original capital expenditure. We calculated that an expenditure of £36,000,000 per year would mean a net cost of only £14,000,000. The saving to the Exchequer arising from a capital expenditure of £36,000,000 is thus £22,000,000, or roughly two-thirds. As a matter of fact, in coming to this conclusion Mr. Keynes has accidentally ignored his own very conservative figures given earlier in the article. A correction has since appeared in *The Times*.

Mr. Keynes's further articles will be referred to in next week's issue of the JOURNAL. Up to date he has afforded our argument almost complete—though quite independent—confirmation at every point, and in challenging criticism from any quarter he makes it clear that he considers his statements unassailable.

TOWN PLANNING

A paper on the "Town and Country Planning Act, 1932, and Town Centres," was read by Mr. Herbert H. Humphries, C.B.E., M.INST.C.E., at the Town Planning Institute, on Friday last.

He pointed out that in many ways the new Act modifies the Act of 1925 and that it is disappointing that the procedure for almost every stage of town planning has been made more lengthy than formerly, as each stage now has to be passed by Parliament before it may be carried out by local authorities. A scheme may have to be limited also, by the degree to which "within a reasonably short period development in regard to manufacture and trade would involve rebuilding operations; and the degree to which local authority would embark upon street widenings and the construction of such new streets as might be necessary in regard to building development and traffic conditions. If the application of the Act is to be interpreted other than with wide vision, possibly only small replanning schemes will be able to be brought forward from time to time."

POSTER ART EXHIBITION

Today, March 15, the Hon. Oliver Stanley, M.C., M.P., Minister of Transport, will open, at 2.15 p.m., the London and North Eastern Railway Co.'s eleventh exhibition of poster art at the New Burlington Galleries, Burlington Gardens, W.1. The exhibition will remain open until March 25 between the hours of 11 a.m. to 5 p.m.

THE ADELPHI BILL

The second reading of the Adelphi Estate Bill will come before the House of Lords to-morrow, March 16. It is to be sponsored by Lord Newton and the Opposition is to be led by Lord Esher, chairman of the S.P.A.B.

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* It is perhaps worth adding that the leading article on p. 353 was written before the publication of Mr. Keynes's article in *The Times*, and is reproduced unaltered.

Briefly, the object of the Bill is to repeal the Act of 1771, which provided that no building between Adelphi Terrace and the river should be more than twenty feet high. There are also provisions in the new Bill for carrying out road widenings, construction of new streets, removing or altering any vaults, arches, cellars, etc.

SOUTH WALES ARCHITECTS

At the invitation of the Chairman (Mr. Percy Thomas, F.R.I.B.A.), and the Executive Committee of the South Wales Institute of Architects (Central Branch), a tea and discussion meeting was held at the Dorothy Café, St. Mary Street, Cardiff, on March 9.

The discussion—on Functionalism in Architecture—was opened by two student members, Messrs. H. J. W. Lewis and D. W. Roberts, the former speaking in favour of functionalism and the latter against. Many of those present joined in the debate.

R. I. B. A.

THE NEXT MEETING

A paper entitled "Recent Developments in Buildings" is to be read by Dr. Oscar Faber, O.B.E., M.INST.C.E., at the Institute on Monday next, at 8 p.m.

HOW TO LOOK AT LONDON

On Wednesday last Mr. Goodhart-Rendel gave the first of a series of lectures on "How to Look at London," which are being organized by the R.I.B.A. to take place during March and April.

Mr. Goodhart-Rendel took as his theme the architectural development of Piccadilly during the last hundred years, illustrating his lecture with lantern slides and a series of drawings which have been produced by him showing all the present Piccadilly buildings for comparison with a similar series that was published almost exactly a hundred years ago by John Tallis.

He critically examined Piccadilly as it is today, building by building, starting at No. 1 Piccadilly, which is now part of the London Pavilion, and working westwards.

The lecturer concluded his remarks with an appeal for support of the project of making "new Tallis" drawings of other streets in London, the value of which would be even greater. The preparation of such drawings is a long and expensive business, but Mr. Goodhart-Rendel showed that this scheme could be made possible through subscriptions to the Architects' Unemployment Relief Fund, which could employ otherwise workless architects to help with the preparation of these drawings, with a view to possible publication.

ELECTION OF MEMBERS

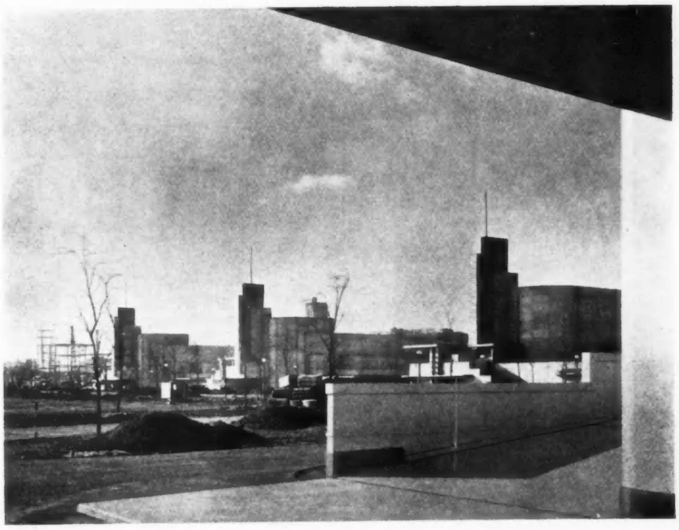
At a council meeting of the Institute held last week, the following members were elected:—

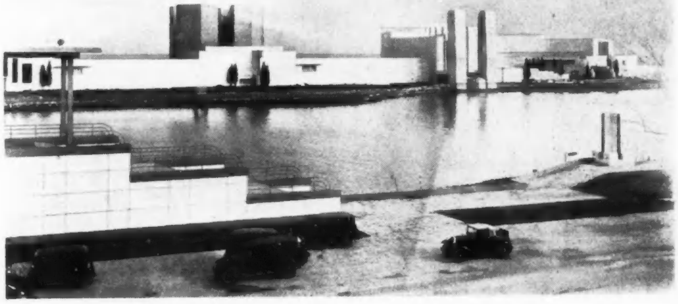
AS HON. CORRESPONDING MEMBER (1).—Mr. Maurice Gras.

AS FELLOWS (9).—Messrs. R. K. Ellison, P. Hardy, A. P. Lay, E. E. Morgan, M. Skinner, F. L. Atwell, Captain C. C. A. Hobbs, D. E. Ingleton, and W. A. Lea.

AS ASSOCIATES (61).—Messrs. E. S. Ambrose, R. Ashton, D. G. Bannerman, E. Bedford, T. Bertram, V. D. Bouchard, (Miss) O. G. V. Briggs, A. Brown, C. L. Bugler, S. A. Comben, D. G. Cutler, E. Davies, T. H. Eley, S. Elgar, K. Exell, J. E. Farnsworth, E. Firth, J. H. Fowler, E. E. Freeborn, J. Galletly, K. W. Gearey, D. Gillespie, G. D. Griffiths, H. L. Hare, D. Harvey, E. R. Heathcote, F. A. Hewitt, A. W. Kendrick, (Miss) E. E. Maclennan, W. E. Marston, J. Miller, A. L. W. Morrison, R. J. Page, H. G. Pescod, J. W. Poltock, (Miss) O. M. E. Price, S. Ripley, H. J. Risbridger, G. Robb, A. Robinson, F. L. Rothwell, J. K. G. Sarjeant, J. J. de Segrais, C. B. Smith, H. B. K. Smith, W. C. B. Smith, C. A. Spivey, D. R. Stark, R. O. Sutherland, W. T. Sutherland, E. G. Thacker, T. E. S. Thwaite, C. R. Tozer, W. Underwood, W. G. Walmsley, A. W. Waters, P. G. K. Watkinson,

THE WORLD'S FAIR, CHICAGO





Preparations for the World's Fair, Chicago, to be held this summer, are rapidly approaching completion. The photograph above shows the first three of the five pavilions of the General Exhibits Group, in which will be pictured the development of modern industry. Below is seen the Electricity Group, which will be embellished with hanging gardens, steel cypress trees, electric cascades and fountains, gilded pylons and paved terraces. White, red, yellow, gold, blue and silver will be the colours used to decorate this Group.

F. E. Woolley, W. G. Wright, (Miss) B. Wrinch, H. Wyatt.

As LICENTIATES (8).—Messrs. H. Avison, J. C. Hall, G. Helson, I. L. James, L. H. Patten, C. W. M. Potts, S. E. Tarrant, W. E. Welch.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute :

Standing Advisory Committee of the Department of Scientific and Industrial Research on the Testing of Building Materials : The President was re-nominated to represent the R.I.B.A. on this Committee for the year 1933.

Leverhulme Maintenance Scholarships at the Architectural Association School of Architecture : Mr. A. H. Moberly (F.), Chairman of the R.I.B.A. Examinations Committee, was nominated as the R.I.B.A. representative on the Committee appointed to administer the above scholarships.

Technical Committee on Timber Specifications : Mr. R. B. Ling (F.) was appointed to represent the R.I.B.A. on a Technical Committee set up by the British Standards Institution to consider the question of Timber Specifications.

Appointment of Examiners : On the recommendation of the Board of Architectural Education, the Examiners were appointed for the year ending December 31, 1933.

The Architects (Registration) Act, 1931 : The Recognition of Examinations : The Council were formally notified that the R.I.B.A. Final and Special Examinations had been recognized by the Architects' Registration Council as a qualification for registration under Section 6 (1) (c) of the Act.

The Registration of Architects in Shanghai : A letter was submitted from the Foreign Office stating that instructions had been issued by the Executive Yuan of the Chinese Government to the effect that membership of the R.I.B.A. can be accepted as sufficient qualification for registration of architects in China.

Model of Temple of Edfu : On the recommendation of the Literature Standing Committee, it was agreed to lend the Model of the Temple of Edfu to the London University Museum of Models.

Christmas Holiday Lectures for Boys and Girls : The Art Standing Committee reported that they had asked Mr. E. R. Jarrett (A.) to give the lectures again next year.

Alteration of the Name and Rules of the Birmingham Architectural Association : The Council gave formal approval to the revised Name and Rules of the above Association.

Transfer to the Retired Members Class : The following members were transferred to the Retired Members Class :—

As Retired Fellows : Messrs. G. Hornblower ; A. M. Mackenzie ; A. R. Mayston ; J. R. Moore-Smith ; and F. W. Simon. *As Retired Associates :* Messrs. A. W. Addison ; F. B. Cooper ; and W. A. Moull. *As Retired Licentiates :* Messrs. P. Bowden ; E. W. Crickmay ; J. B. Drower ; A. Howard ; F. G. Pain ; and A. W. R. Simpson.

Resignations : The following resignations were accepted with regret :—

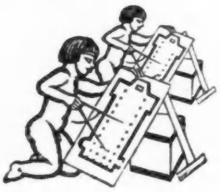
Messrs. C. R. Ashbee (F.) ; H. L. Beckwith (F.) ; H. T. Bill (A.) ; G. Capon (L.) ; G. Cash (L.) ; A. S. Gold (L.) ; F. Hatch (L.) ; and W. Kerr (Alloa) (L.).

Reinstatement : The following ex-member was reinstated :—

As Licentiate : Mr. Joseph Boyd.

Election of Students : The following Probationers were elected as Students of the R.I.B.A. :—

Liverpool School of Architecture : Misses M. M. Baird, K. M. Hinchcliffe and Mr. A. Hadjidemetrion. Architectural Association : Messrs. G. I. Clay, V. B. Martin, C. A. V. Smith, Northern Polytechnic : Messrs. G. I. Clothier and C. J. Pickett. University of London : Mr. P. D. Dunham. Glasgow School of Architecture : Messrs. D. G. MacConville and J. B. Watson. Edinburgh College of Art : Mr. A. B. Kerr. University of Sheffield : Messrs. E. V. Knott, J. A. Nixon and A. K. Taylor. Nottingham School of Architecture : Mr. A. G. Nixon. R.W.A., Bristol : Messrs. W. M. T. Parsons and P. K. Pope. The Polytechnic, Regent Street : Messrs. J. B. Smith and L. H. Wilson. School of Arts and Crafts, Southend-on-Sea : Mr. B. G. White. University of Manchester : Miss A. E. Powicke. Intermediate Examination : Mr. A. A. van Montague. Approved qualification in the Dominions : Mr. C. Dainton.



COMPETITION NEWS

FOR THE DESIGNER

Details of an opportunity for British designers to show their worth in open competition against the designers of the rest of the world were announced on Saturday last by Sir William Crawford, the chairman of the Organizing Committee of the forthcoming Advertising and Marketing Exhibition at Olympia.

The opportunity (according to Monday's *Manchester Guardian*) will take the form of a competition in which designers of virtually everything for promoting sales will be given a free hand to submit designs (as many as six entries for each of the forty-and-odd categories will be permitted) for such things, as posters, trade marks, containers, shop-fittings of every kind, illuminated signs, and advertising novelties. And if the competitor feels that his talent lies outside the categories mentioned he may submit designs for any other subject, provided that it "might be said to assist in the sale or distribution of goods."

The exhibition officials, it is further stated, have decided to accept entries from individual designers only and not from commercial concerns, and so give the individual a freedom usually denied to him in competition. Designers of any nationality may compete. The Judging Committee will have Lord Leverhulme as its chairman and will include Sir Ambrose Heal and Messrs. Paul Nash, C. R. W. Nevinson, L. Raven-Hill, and Aubrey Hammond. Winning exhibits will be awarded a diploma.

TRAVELLING SCHOLARSHIP

The Institution of Structural Engineers have just issued particulars of the Portland House Travelling Scholarship, 1933. It will be awarded for the best design for a concrete sports stand, for which a prize of £150 is offered, together with a gold medal. The two designs placed next in order of merit may, if the jury deem them of sufficient merit, be awarded respectively a silver and bronze medal. Candidates for the scholarships may be members in any class of the Institution of Structural Engineers who on June 10, 1933, are under the age of thirty five years. All candidates who submitted designs for the concrete church in 1932 (the winning design is illustrated in this issue) are eligible to compete for the present scholarship.

The scholarship is awarded with the intention of providing an opportunity for the study of cements, concrete, and reinforced-concrete, in foreign countries, to a candidate who has already some knowledge of these subjects.

The winner of the scholarship will be required to spend 28 days on the Continent, there to study the æsthetic and practical conditions pertaining to the uses of cements and concrete.

Entry forms may be obtained from the Institution at 10, Upper Belgrave Street, S.W.1. The closing date is May 20.

Competitions Open

March 15.—Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Open to architects who have been in practice, either as individuals or as partners in a firm, for at least twelve months prior to March 1, 1933. Assessor : A Graham Henderson, F.R.I.B.A. Premiums : £200, £100 and £50. Applications for conditions of competition and plan of site should be made to William Shaw, Town Clerk, Burgh Chambers, Prestwick, Ayrshire, together with a deposit for £2 2s., today, March 15. If the applicant decides not to enter, conditions, etc., must be returned before April 15. Designs to be submitted to the Town Clerk not later than 12 noon on May 8.

March 24.—Façade to a newspaper office in grey Cornish granite, for the Cornish Quarry Masters' Association. First Prize, £50. Conditions etc., were published in *A.J.* for Feb. 1.

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street, W.1, from whom full conditions are obtainable. Premium : £100.

April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums : £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

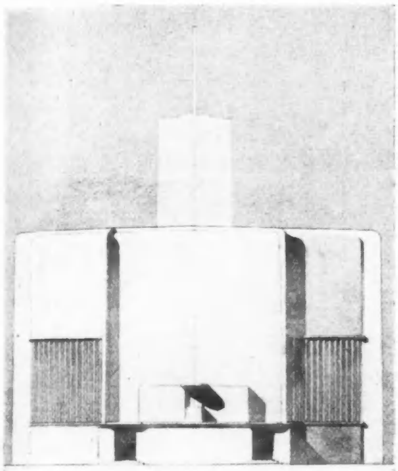
May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

ON THE AIR

The next talk in the B.B.C. series "Other People's Houses" will be broadcast on Monday next, March 20, in the National Programme at 9.20 p.m. It is to be given by Sir Raymond Unwin, P.R.I.B.A., who will speak on "A Proposal for a National Housing Board."

A REINFORCED CONCRETE CHURCH

DESIGNED BY WALTER GOODESMITH

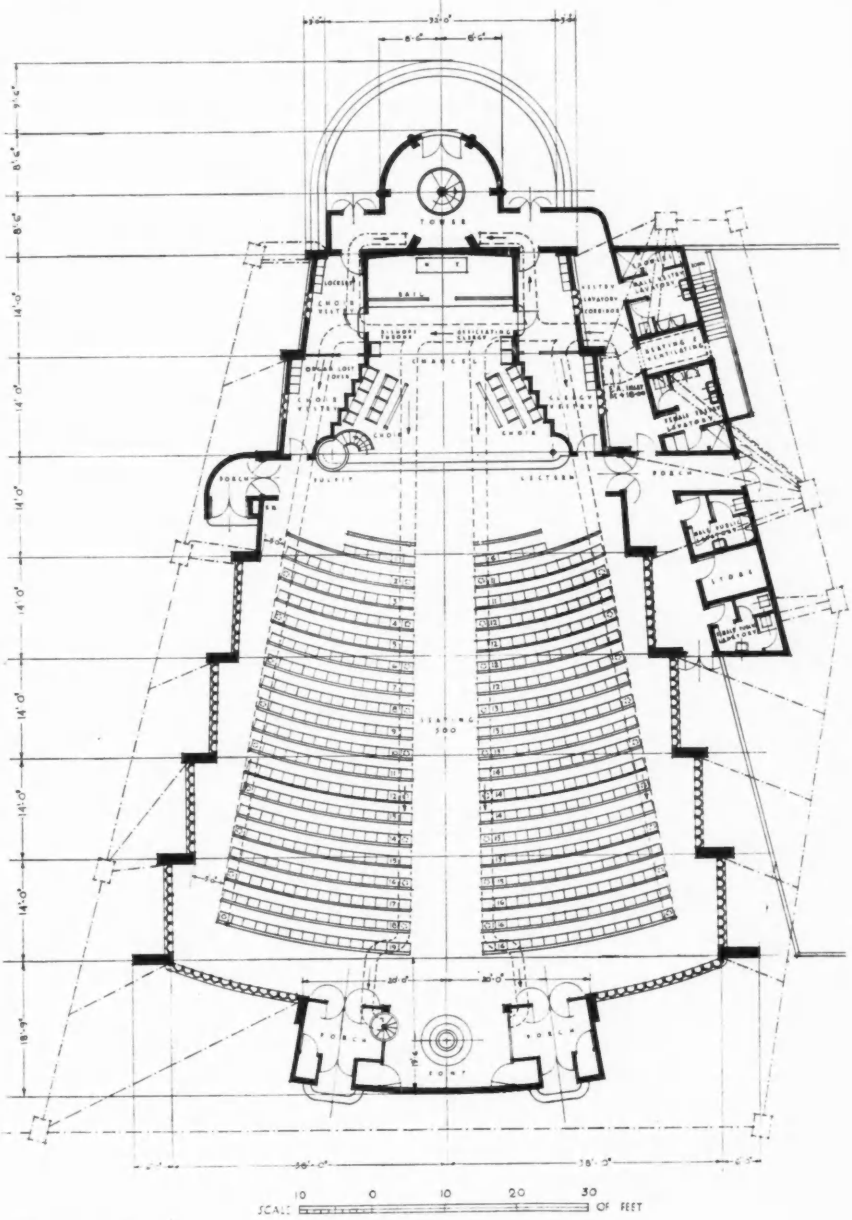


The west elevation, with open-air pulpit.

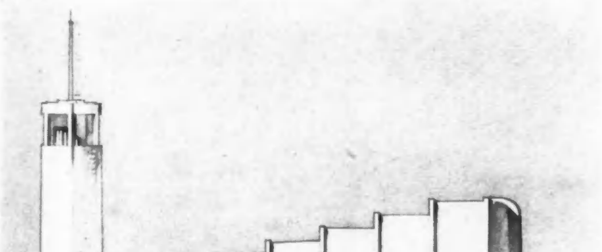
This design, by Walter Goodesmith, A.T.C. (Syd.), A.R.I.B.A., was awarded the Portland House Travelling Scholarship and Gold Medal of the Institution of Structural Engineers for 1932. The concrete scholarships of the Institution of Structural Engineers are, it is understood, the only ones in Great Britain to combine the two subjects of Architecture and Engineering.

NOTE BY THE ARCHITECT

The acoustical treatment of the problem and the correct expression of the materials used have been the deciding factors in determining the mass and general expression of the structure.



32'-0"
8'-6"
8'-6"
TOWER
RAIL
CHANCEL
CHOIR
CHOIR
VESTRY
PULPIT
LECTERN
PORCH
PORCH
PORCH
PORCH
SEATING 300
STORE
FONT
14'-0"
18'-9"
20'-0"
20'-0"
38'-0"
38'-0"
10 0 10 20 30
SCALE OF FEET



The north elevation.

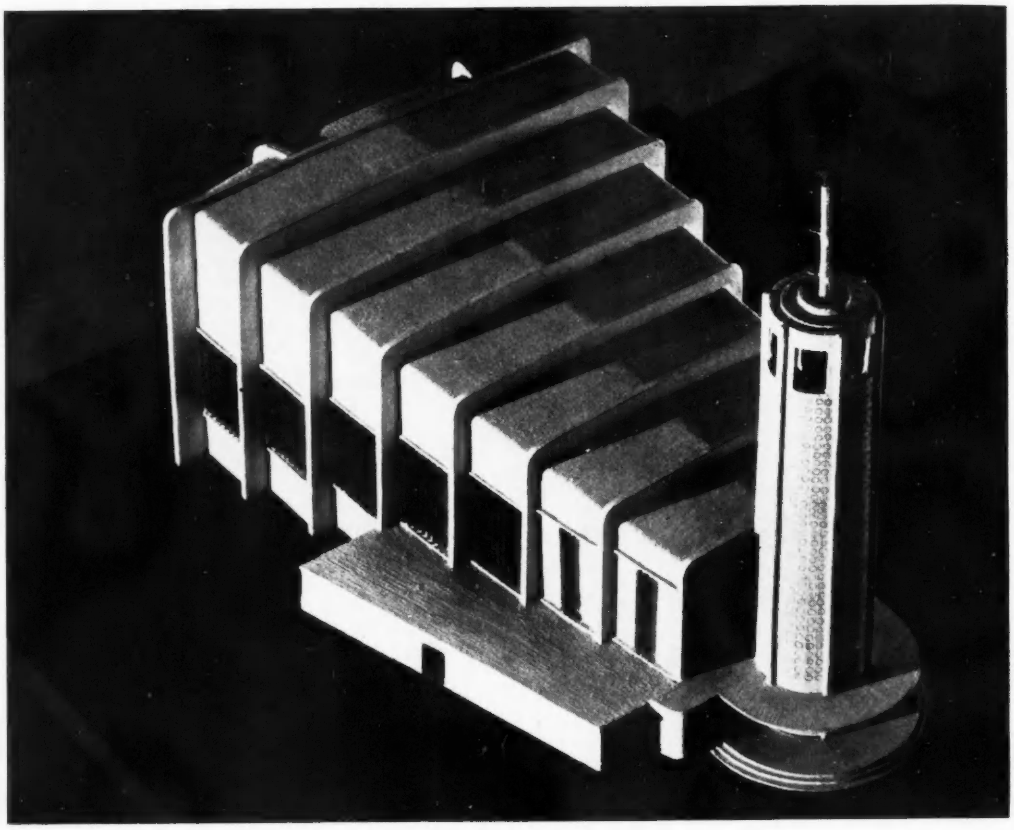
The side walls and roof are identical in section, the stepped formation increasing directly as the distance from the source of sound.

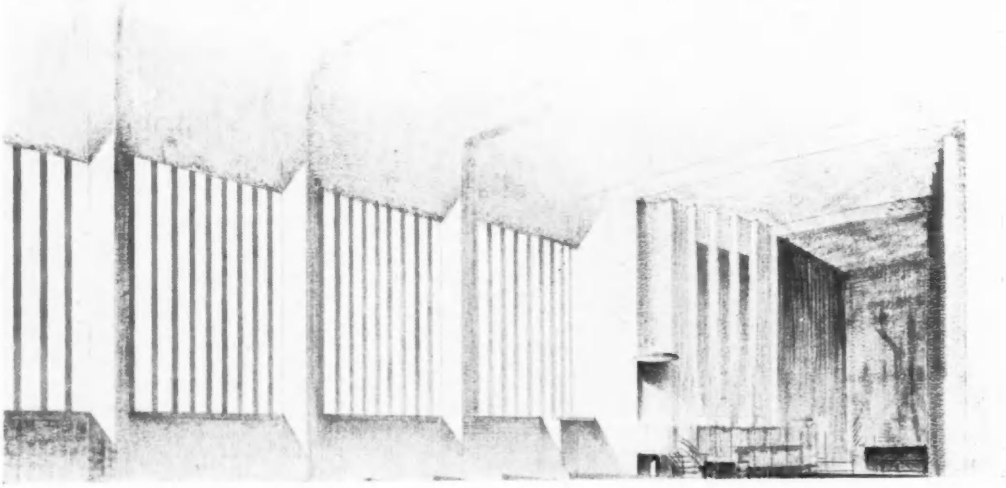
The circular east-end carillon tower has tubular bells and is an expression of circular glass lights set in concrete between vertical piers, the top being surmounted by a wireless mast.

The main windows extend between rigid frames, and consist of rolled plate fluted glass in facets, set alternately at 30 deg. between concrete mullions.

An open-air pulpit is provided at the west end for haranguing the multitudes in the open spaces surrounding; an amplifier is installed therein.

REINFORCED CONCRETE CHURCH





NOTE BY THE ARCHITECT

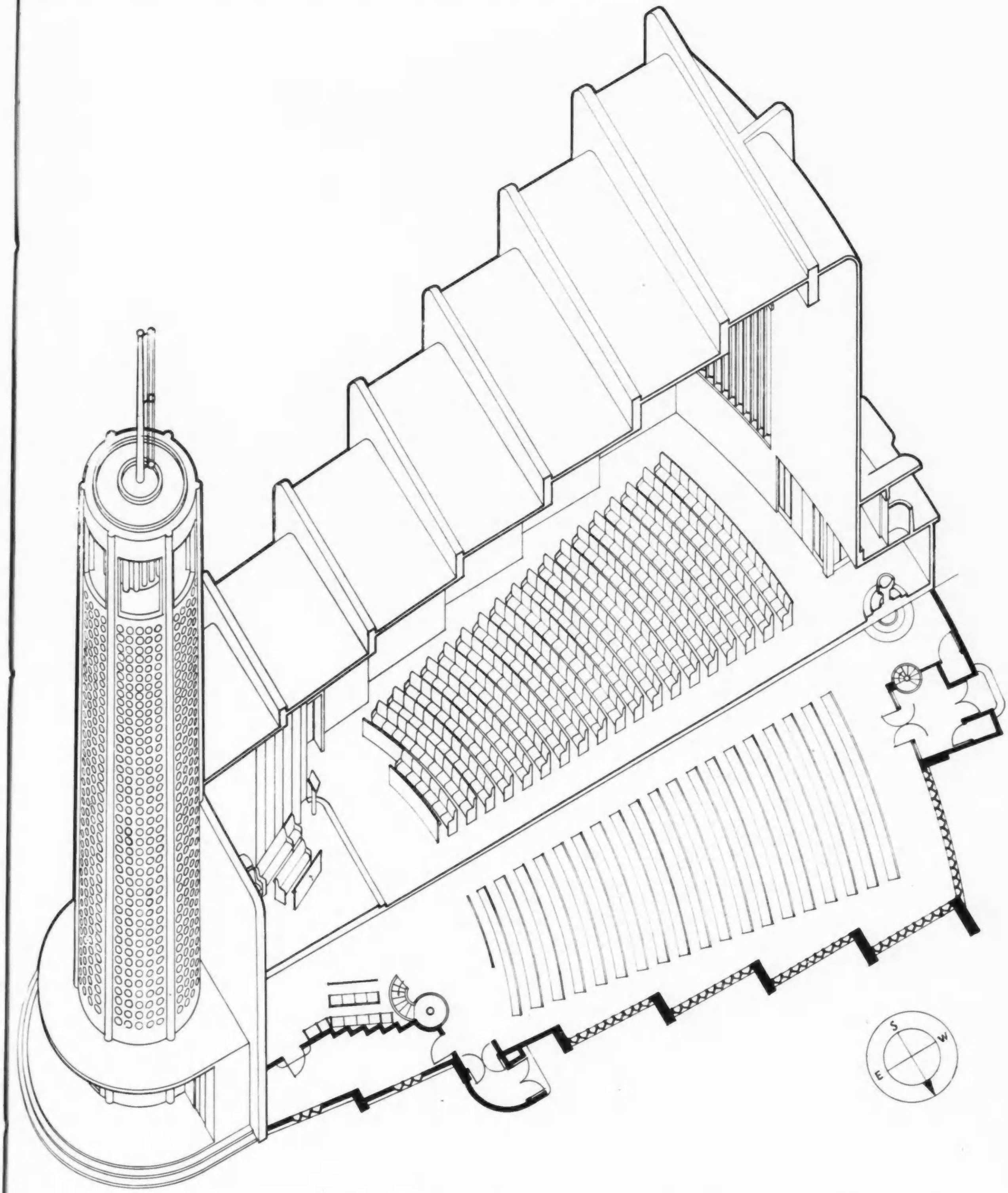
Fortunately, the acoustically-shaped plan is an ideal one from the point of view of sight lines and, with the seating arranged radially, an unobstructed view is obtained from every seat.

The walls of the chancel have been sloped outwards, producing a better acoustical shape, and at the same time opening up the vista. Complete circulation is provided, enabling the maximum use to be made of the layout.

The organ is expressed by grilles on both stepped sides of the chancel; the organ loft, with blower equipment, is placed above the vestries.

The design of the furnishing throughout is simple and functional, in keeping with the general expression of the whole.

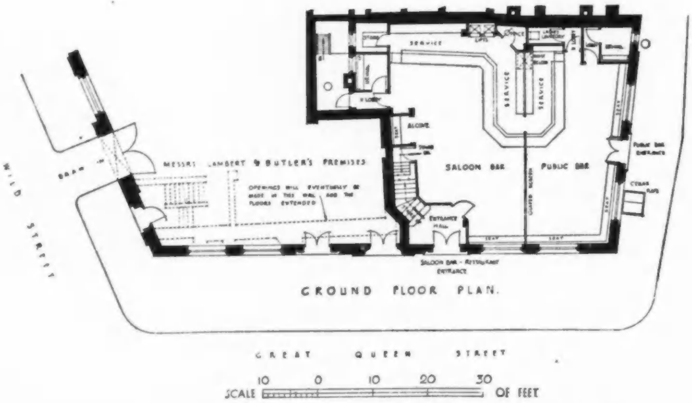
DESIGNED BY WALTER GOODESMITH

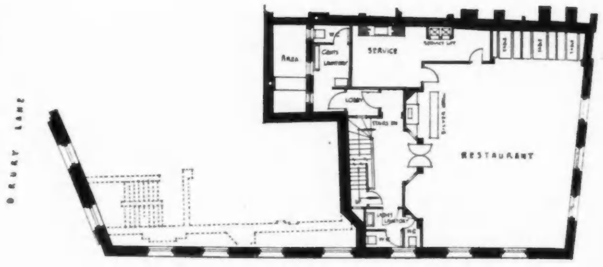


ISOMETRIC & PART PLAN

10 0 10 20 30
SCALE OF FEET

BEFORE : A TRANSFORMATION SCENE


MESSRS LAMBERT & BUTLER'S PREMISES
OPENINGS WILL EVENTUALLY BE MADE IN THIS WALL AND THE FLOORS EXTENDED
SERVICE
LIFTS
OFFICE
LOBBY
ALCOVE
SEAT
SALOON BAR
PUBLIC BAR
PUBLIC BAR ENTRANCE
CELLAR FLAPS
ENTRANCE HALL
SALOON BAR - RESTAURANT ENTRANCE
GROUND FLOOR PLAN.
GREAT QUEEN STREET
WILD STREET
DRURY LANE
SCALE 10 0 10 20 30 OF FEET


DRURY LANE
AREA
GENTS LAVATORY
SERVICE
SERVICE LIFT
LOBBY
STAIRS DN
RESTAURANT
LADIES LAVATORY
W.C.

A. W. BLOMFIELD, ARCHITECT

The photographs show the "Prince of Wales" public-house, as it stood, formerly, at the corner of Great Queen Street (right) and Drury Lane, and as it now stands. Following the building of the Masonic Memorial Hall, further along Great Queen Street, L.C.C. street improvements have resulted in setting the corner back thirty feet. The licensed house occupies only half the new frontage, but, by friendly arrangement, the front wall is continued, as shown on the plans, across Lambert and Butler's warehouse premises, with a return to Wild Street, to form a harmonious whole ; eventually it will be the main front wall of their factory.

The public-house is constructed in brick, with Portland stone facings, and metal windows. On the ground floor the saloon is fitted with an up-to-date snack bar, continuous with the beer counter.

The tenant's quarters are on the second floor, and comprise two bedrooms, sitting-room, bathroom and lavatory. The staff are accommodated in five bedrooms on the third floor, where a sitting-room and additional lavatories are provided.

PRINCE OF WALES
IMPERIAL STOUT
WATNEY

LETTERS *FROM* READERS

WILLIAM HINTON
SIR HERBERT J. ORMOND
(Mayor of Stoke Newington)
L. J. REDGRAVE CRIPPS
A STUDENT OF HOUSING
R. LESLIE ROLLO, F.R.I.B.A.
(Head of Aberdeen School of Architecture)
P. WILLIAMS

Building—Figures and Facts

SIR,—Referring to the leading article in your issue for March 1, entitled "Building—Figures and Facts," you have missed out one very important point.

You refer to the £40 spent during the week on wages by the manufacturer of the articles required for the builder, and then go on to account as to how this £40 is disbursed. But you have entirely forgotten that for a manufacturer to spend £40 on wages he must of necessity spend a further amount on the materials which he has to use, and this, to my mind, would probably be in the region of another £25. If you took 40 per cent. of this as representing wages this adds a further £10 to the £80, making, therefore, a total of £90 to be spent on food and clothing, etc., plus the other additions which you mention.

WILLIAM HINTON

[I am afraid that the nature of my assumptions—which, possibly, I did not make sufficiently explicit—has rather misled your correspondent.

I supposed that a contract for £100 was given. The contractor would then spend £40 on wages and £50 on materials, on the average for all types of work. I then went on to say that out of the £50 spent on materials, the manufacturer would pay out £40 in wages. Your correspondent argues that this would entail a further expenditure of £25 on materials, which would contain an element of wages. But only £50 is spent on materials by the contractor, and the manufacturer cannot spend £40 on wages *and* £25 on materials out of £50.

The reason why my statement does not agree with that made by your correspondent's impression of the facts is not because I have omitted elements of wages, or because his impression is incorrect, but because I made an assumption which, for the sake of brevity, I did not make explicit. I assumed, namely, that the manufacture of materials through all stages from the extraction of the raw material was carried on by one person. In the case of bricks, expenditure on wages by the "manufacturer" in my article covers all expenditure on wages from the extraction of the necessary raw material to the completion of the brick.

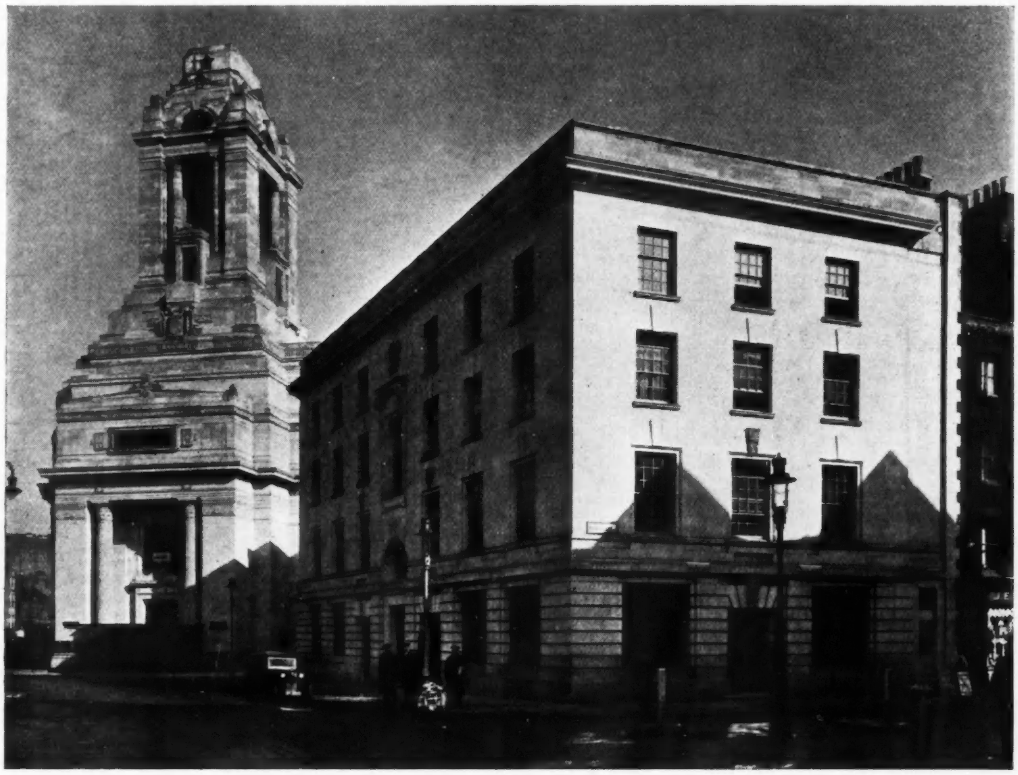
Through all the processes and on the average for all the different materials, £40 out of an expenditure on the original contract represents the payment of wages by the contractor and an additional £40 the total payment of wages in the manufacture of the materials. Your correspondent's "40 per cent. of £25" is thus already reckoned in the £40 paid in wages by the manufacturer. — YOUR LEADER WRITER]

The Keypoint

SIR,—The wave of public economy permeates every sphere of our national life and, if I may say so, not always to our national advantage.

Board of Trade figures show that our retail trade had diminished in January, 1932, by 5.6 per cent. and in January,

IN DRURY LANE, LONDON : *AFTER*



1933, by 11.6 per cent. This progressive decline in purchasing power is most serious and, if continued, can lead only to stagnation.

May I suggest that the Government should indicate their willingness to local authorities to allow schemes of work to get going again? Mr. J. M. Keynes has said that £30 million spent on houses would add £60 million to our national income.

It is also true that the building trade is always a keypoint in the economic structure and any improvement there would quickly radiate.

I am sure it would.

HERBERT J. ORMOND

A Woman's Ideal Home

SIR,—I am pleased to see that you referred, in your last issue, to Miss Elizabeth Craig's plans for an alleged "ideal home" that were recently given considerable prominence in *The Sunday Express*.

What is the use of such protective measures as the Architects' (Registration) Act if the British public (especially the easily gulled "modern woman") is to be left to the tender mercies of such architects as Miss Craig?

Her so-called "ideal" plan will not bear one moment's expert examination; it is really the greatest lot of juvenile nonsense I have ever seen, and the fact that any responsible paper should publish it shows how gullible people are in this highly-specialized work of domestic architecture.

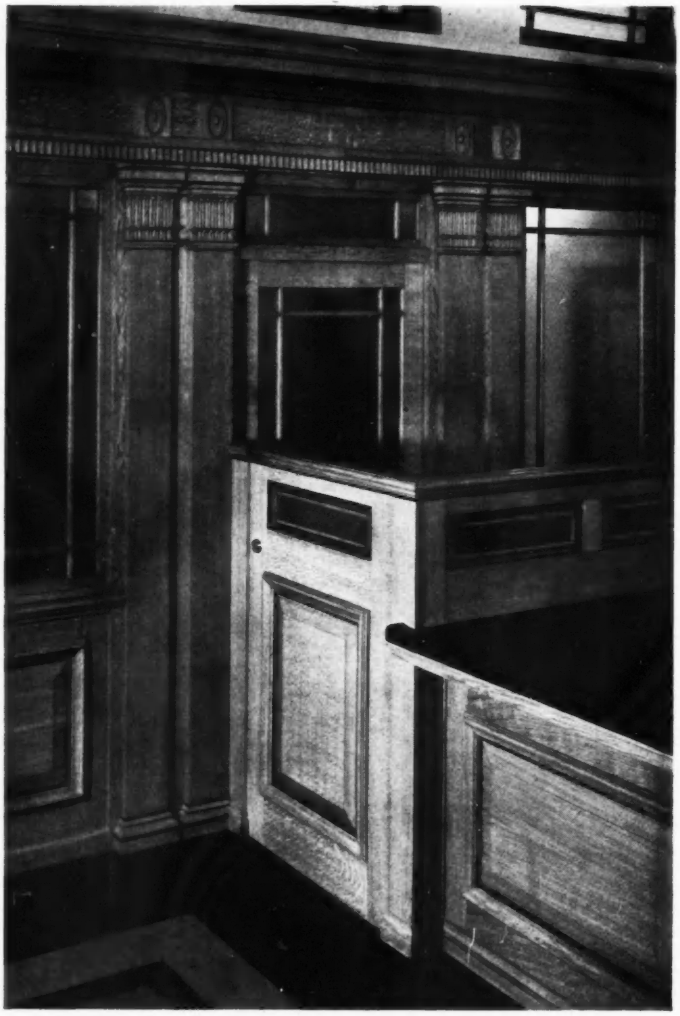
Not only was the staircase so planned that, for lack of headroom, it would be impossible to get up or down it except by crawling on one's hands and knees, but practically everything else was about as ill-planned as it could possibly be. Thus, winders are provided at both top and bottom of the staircase, so that if you fail to trip up and break your neck on *one* set of winders you have a second chance to do so each time you use this modern woman's "gracious" staircase!

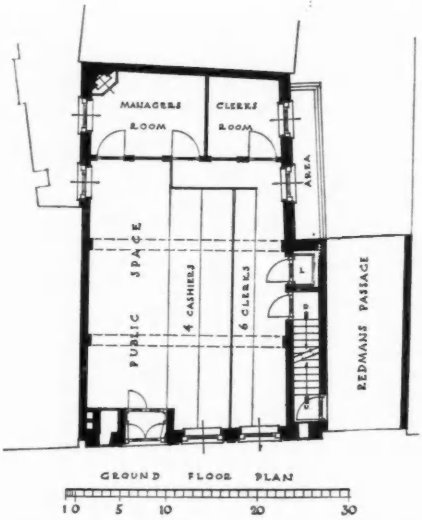
Then, with regard to cupboard accommodation. We men architects have invariably been told, with monotonous insistence, by our lady clients, the old old story about the great importance of providing *plenty* of built-in cupboards. But on reference to Miss Craig's own plans what do we find? *Not one single built-in cupboard in the whole house!* The only cupboard shown is the very small *projecting* cupboard in the kitchen. Furthermore, the kitchen sink is so planned that it is impossible to provide it with a draining-board—*there is absolutely no space for it.* Yet, if a mere man may venture to say so, what earthly use is a kitchen sink *without* a draining-board?

Three bathrooms are provided in this small "ideal" house—all with due *north* aspect. Two of these bathrooms are shown no wider than the width of the stairs, i.e., about 3 ft., which means that by the time the bath is fitted there will be practically no floor space left to get in or out of the bath! As for the maid's bathroom, there would scarcely be room in this for fitting a good-sized lavatory basin, let alone a bath.

The rest room so thoughtfully provided for the maids is a most sumptuous apartment of about 5 ft. square—or just about as large as a glorified telephone box! But this is not all. So that this rest room should justify its title and be as restful as possible, Miss Craig has planned it so that it constitutes the *only* means of access to the kitchen from the rest of the house—and furthermore in order to be cheerful and healthy it has, like each of the two bedrooms provided for the poor unfortunate maids, *a due north aspect!* These thoughtful and considerate arrangements will doubtless duly impress

A BRANCH BANK AT SEVENOAKS



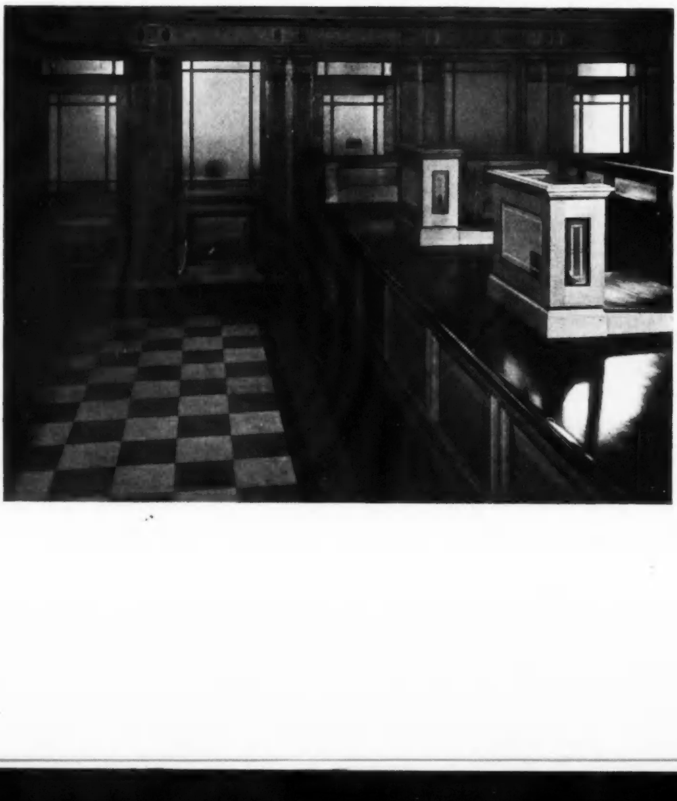

MANAGERS ROOM
CLERKS ROOM
AREA
PUBLIC SPACE
4 CASHIERS
6 CLERKS
REDMANS PASSAGE
GROUND FLOOR PLAN
10 5 10 20 30

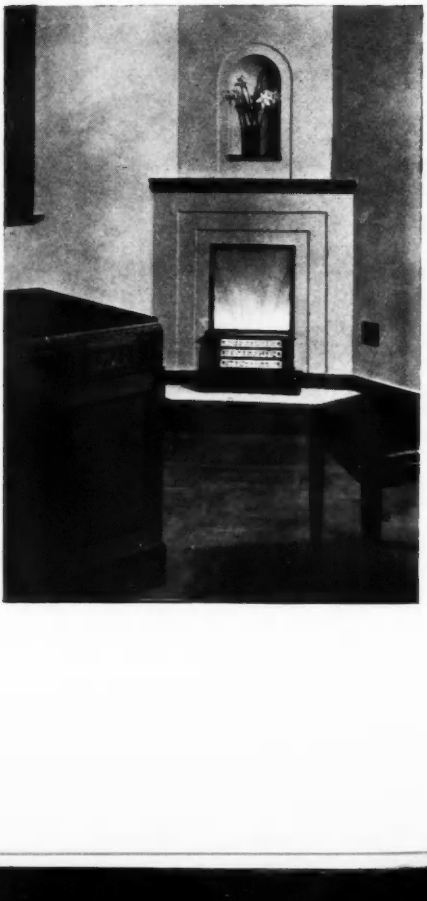
A view of the exterior of this new country branch of Barclays Bank, in High Street, Sevenoaks, Kent, is reproduced as frontispiece to this issue.

The ground floor consists of the banking hall (with accommodation for four cashiers and six clerks) and a manager's room (see below) and clerk's room. All woodwork is in oak having a silvery grey stain, with certain parts picked out in ebonized mahogany. In the public space, the floor is covered with rubber in a pattern of black and two shades of coffee-colour, rather following that of the woodwork. The outer edge of this floor is in black rubber, turned up all round as a kicking-plate and skirting. The furniture has been designed by the architects specially for this interior.

The first and second floors are to be let off as offices and are approached from the side door.

DESIGNED BY
MITCHELL AND BRIDGWATER





the maids and make them realize how very lucky they are to be living in an "ideal home" designed by a modern *woman* and not, thank goodness, by the usual non-understanding and inhuman male architect. And the guests too will also doubtless appreciate the equally convenient and hygienic arrangement whereby *the ground floor w.c. has been planned so as to open direct into the lounge.*

I think a fitting penance for Miss Craig would be to *make her live in her own "ideal" house!* I should love to see her, on her hands and knees, wriggling up and down her own "gracious" staircase!

L. J. REDGRAVE CRIPPS

*[As we go to press, we receive, from Mr. Redgrave Cripps, plans of a house designed by him on parallel but workable lines. Both sets of drawings, with his detailed comments, will appear in our next issue.—*Ed., *A.J.]*

Building Societies

Sir,—The statement recently made by Mr. Stanley Baldwin that building societies have helped to finance about one-half of the two million houses constructed since the War in Great Britain will come as a surprise to many. We have heard so much of municipal housing that the work of these societies is apt to be forgotten. The movement recently has had a setback, for so many of the buyers of these houses are faced with depreciation of values, and today sadly recognize that part of their savings invested in their homes has been lost.

It is encouraging, however, to learn from Sir Josiah Stamp that property is now in increasing favour, and has probably reached a more stable level than at any time since the War.

A STUDENT OF ARCHITECTURE

Little Things that Trouble

Sir,—Following is a copy of a letter sent to me from London by a former architectural student who, in these hard times, has turned contractor.

R. LESLIE ROLLO

Dear Professor,—Many thanks for your letter and the form. I'm afraid my optimism is not a virtue. It's an incurable affliction! Life's a sheer joy! I spend my days plumbing the depths of my ignorance. Which reminds me (talking of plumbing) that there are things that I was never told during the delightful course at the School. Who, for instance, would have suspected that such a matter of fact little gadget as a cistern ball valve could lead to sleepless nights for countless countesses. Yet I can now say with authority that if one just orders "56 best quality bronze ball valves," and doesn't mention that the building is to be eight stories high, then most of the dear little balls will stay below the water, instead of bobbing blythly on the surface. And the result is most irritating. If you would like some slightly used ball valves, I could lay my hands on about 20 very cheaply (they're in a cupboard in the office). I shall expect to see a note in next year's construction prospectus that "All the facts concerning ball valves" will be included in the curriculum.

Precisely similar caution has to be observed with regard to square hot water tanks. These are frightfully deceptive and I strongly advise all architects to make a careful study of their habits, and they will be surprised to find that, soon after bulging 6 inches, they burst. I took a short course on these things, and was immersed in my subject. Still, all my friends tell me that I suit grey hair. My little diary (part one), entitled "Mistakes and Disasters—Usual and Unusual—collated and arranged," should win an instant place next every architect's heart, in his vest pocket. One thing I have learned, and that is to approach the smallest detail with caution and suspicion, for even a chromium-plated screw has cunning lurking in its little spiral soul.

I'm building myself a house in Boxot (a lovely spot) with floating ball valves, chromium-plated screws and unburstable square hot water tanks complete, and I hope to settle there towards the end of this year.

With kindest regards,

Yours sincerely,

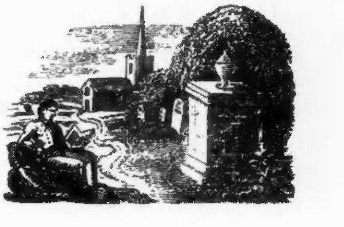
Three to One

Sir,—Some two years ago I dropped into a Lyons teashop in Fleet Street for a cup of tea. I glanced round the room and noticed that the only other person present was deeply engrossed in a copy of a rival architectural paper. When I left the shop some fifteen minutes later the paper still claimed his attention. I remember at the time thinking that I must obtain a copy of the number and find out for myself whether it deserved so much attention.

You will probably ask why I am writing on a thing that happened two years ago, but this was recalled to mind when on Wednesday last I strolled into the same Lyons to satisfy my inordinate thirst for tea, and I saw not one, but three persons studying THE ARCHITECTS' JOURNAL. Two were obviously reading the current issue, because of its buff-coloured cover, but the third was engrossed in the New Year issue.

Three to one, I think, is very good odds in the small field of architectural papers that are now being published.

P. WILLIAMS



CARLTON HOUSE TERRACE

A CORRECTION AND AN APOLOGY

We publish below a letter we have received from Messrs. Pinchin Johnson & Co., Ltd.

"Dear Sir,

"Our attention has been directed to an article appearing in the issue of your Journal for February 15, 1933, dealing with the subject of Carlton House Terrace. In the course of that article appeared two statements which, if uncontradicted, would be likely materially to damage our Company, and those statements, it appears to us, are in their nature libellous.

"In the first of them it is stated that our Company is 'a firm which by reason of some of its directors and the holdings of certain blocks of shares must come under American influence.' In the second of them it is stated that our Company chose to carry on 'caring nothing for public opinion, Parliament, amenities, The Mall, or anything in the world except their American shareholders.'

"We have been at some pains to analyse our share registers and we find that 0.35 per cent. of the shares are held by Americans, and it is totally untrue and extremely damaging to suggest that the holders of those shares exert any influence upon the company.

"We state emphatically that none of our directors is an American; that our business is not controlled or influenced by Americans, or American capital in any shape or form, and we have to ask, therefore, that you immediately withdraw the statements to which we have taken exception, and that such withdrawal and a suitable expression of regret are published in at least as prominent a type and position in the Journal as the article to which we take exception.—Yours faithfully,

PINCHIN JOHNSON & CO., LTD.
R. PALTRIDGE
Managing Director"

We wish to apologize to Messrs. Pinchin Johnson & Co. for having published a statement which it is obvious from the above letter is totally untrue. We unreservedly withdraw that statement and our comments upon it and express our sincere regrets for having given publicity to it.

DE-SLUMMING

[BY E. MAXWELL FRY]

THE nearer we get to slum clearance, the more difficult it appears. The more it is looked upon as a difficult but not abnormal extension of the normal housing problem, the less likely we are to make a success of it.

We have shirked it so far because our common standards of living have risen faster than wages, and building costs faster than both.

Secondly, slum clearance is an urban problem, arising out of poverty, congestion and vested interest. It was easier to build small houses upon the outskirts of towns than it was to turn to the depressing mess at the centre. At the time, the easier way was perhaps the better. Most of us acquiesced. It was nearly the only way.

But the process of transferring slum-dwellers from the centre to the outside could not go on indefinitely. It was not always a success. The transferred did not always appreciate their far-flung garden cities. Becontree was saved from failure by the coming of new and not altogether expected industries.

And still the slums remained, and face us, now, with the urgent problem of housing the very poor—those who cannot afford more than 9s. per week for rent—in flats and houses of such a standard as will prevent their occupation by poor people turning them into slums of the future.

And there is this further problem: that in the siting and in the design of these dwellings, we are to build them in the likeness of a civilized town, offering something more than bricks and mortar to their intelligent and worthy inhabitants, who are as much a part of the race as one who lives, better housed, elsewhere. Slum clearance is not enough. It must be town planning too, if it is to last longer than the slums it replaces.

The wireless discussion between Mr. H. R. Selley, M.P., and Major Harry Barnes, reported in *The Listener* for March 8, brought dramatically to the front the terms of the conflict between housing standards and economics, and Major Barnes was surely right to maintain that we cannot afford to lower standards if we mean to abolish slums. The L.C.C. new "B" type of flat which cuts the floor area of a four-room flat to 563 square feet, and provides a bathroom to be shared by three flats, reached from an open balcony, is a signal of defeat at the outset of the struggle.

If this is the last word now, how will we end?

The problem must be solved at the centre. *There* it lies, and between it and open land stand miles of dense property, miles of expensive journeying by road or railway. "It is the habit of herding together that we want to break down," said Mr. Selley. I disagree entirely. To herd is human and urban. I may not love my neighbour, but I like to have neighbours. The fallacy that herding is ignoble led the garden-city movement down their garden path. One of the really central purposes of slum clearance should aim at ennobling, by finely-designed dwellings, the human wish to live a neighbourly and an urban existence. How are we citizens otherwise?

New factors enter the housing problem. I said earlier that this last stage cannot be looked upon as just another problem. It requires a new architecture. It requires a new and larger building organization. And finally, it must be approached as town planning.

Sir Raymond Unwin's proposals for a public utility co-ordinating organization, using cheap money backed by the State, indicates the first move in the direction of unification. This should lead to mass-buying, and by means of forward planning, enable production to be regulated to feed construction as this moves forward. If we are to take Sir Hilton Young at his word, we shall be given a national programme. Our job is to plan it for ultimate completion.

But so long as block dwellings are hidebound in planning and construction, economies are squandered. Instead of lowering standards as the new L.C.C. "B" type plan does, we have got to solve the new problem by *absolute* planning, using new materials and new constructions, and, where necessary, bringing building laws forward to meet these methods, and this we must do on a basis of town planning that rejuvenates the rotten areas and makes a town fit to live in.

The thing can be done. As Mr. Chermayeff said, in a recent speech to the West Yorkshire Society of Architects: "Architecture can profit . . . from the example of transport. If similar obtuseness and obsoleteness existed in the latter, the car would still be a luxury for the few." E. M. F.

Housing the Poor

"In the past the poor never really have been decently housed, and there is no prospect that they ever will be in the future unless the State, in one way or other, is prepared to pay part of the cost. In other words, the housing problem, which, of course, includes the slum problem, cannot be solved without the expenditure of public money." This statement was made by Dr. C. Killick Millard, Medical Officer of Health for Leicester, when he gave the Chadwick Lecture at the Royal Sanitary Institute on Thursday last. He continued:

> It is to the interest of the State that all its citizens should be decently housed. Money spent in achieving this end will be wise expenditure, and will incidentally relieve unemployment, and thus help the country back to true prosperity.
>
> In any scheme for helping the poor to obtain better houses, the claims of the children should receive first consideration. Children are the class which suffer most from bad housing and who will benefit most from good housing. As things are today the presence of children is too often a real and serious handicap in the struggle to get a house.
>
> In striving to secure a decent healthy housing for the poor we must not stickle too much about "standards." A small loaf is generally better than no bread. It is better for all to have reasonably good houses than for some favoured ones to have very good houses and the rest to have very bad houses, or no houses at all.
>
> The irony of the present impasse is that, side by side with deplorable housing conditions and an acute shortage of houses, is an army of men in the building trades unemployed, and both materials and money are cheaper than ever before.

Working-Class Houses

The Minister of Health has appointed a Departmental Committee to consider and report on the following points on working-class houses:—

(1) What, if any, further steps are necessary or desirable to secure the maintenance of a proper standard of fitness for human habitation in working-class houses which are neither situate in an area suitable for clearance under Part I of the Housing Act, 1930, nor suitable for demolition under Section 19 of that Act, and

(2) What, if any, further steps are necessary or desirable to promote the supply of houses for the working-classes, without public charge, through the agency of public utility societies or other bodies subject to similar limitations operating in particular areas or otherwise.

The membership of the Committee is as follows:—

The Right Hon. the Lord Moyne, D.S.O. (chairman); The Right Hon. Sir Francis Dyke Acland, BT., J.P., M.P.; Sir Charles

Barrie, K.B.E., M.P.: Sir Geoffrey Ellis, BT., J.P. M.P.; Lieutenant-Colonel Sir Vivian Henderson, M.C., M.P.; Major the Right Hon. J. W. Hills, M.P.; Miss F. Horsbrugh, M.B.E., M.P.; Mr. N. K. Lindsay, M.P.; Major G. Lloyd George, M.P.; and Mr. J. V. Worthington, M.R.C.S., L.R.C.P., M.P.

All communications should be addressed to the Secretary of the Committee, Mr. S. F. S. Hearder, at the Ministry of Health, Whitehall, S.W.1.

R.A. Summer Exhibition

The days for submitting work for this year's Royal Academy Exhibition, to be held from May 1 to August 7, are as follow:—

Water-colours, pastels, miniatures, black-and-white drawings, engravings and architectural drawings—Friday, March 24.

Oil paintings—Saturday, March 25, and Monday, March 27.

Sculpture—Tuesday, March 28.

Hours for the reception of work: 8 a.m. to 10 p.m. (Saturday, March 25: 10 a.m. to 2 p.m.).

It should be noted that (*a*) not more than three works may be submitted by any one artist; (*b*) no works will, under any circumstances, be received before or after the specified dates; (*c*) all work must be delivered (unpacked) at the Burlington Gardens entrance.

Labels and forms can be obtained from the Secretary, Royal Academy of Arts, Piccadilly, W.

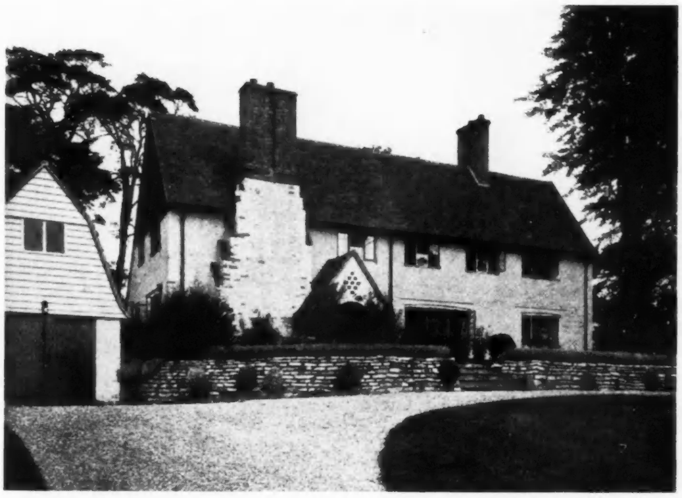
Preserving the Amenities

The Council for the Preservation of Rural England has just issued a memorandum on policy and procedure to be adopted in the electrification of England and Wales. The policy of the Council is to assist the undertakers to provide a cheap and abundant supply of electricity, with the least possible damage to the amenities of the countryside. Single copies of the brochure may be obtained, free of charge, on application to the Secretary, C.P.R.E., 17 Gt. Marlborough Street, London, W.1. Extra copies may be had at two shillings per dozen.

Housing Exhibition

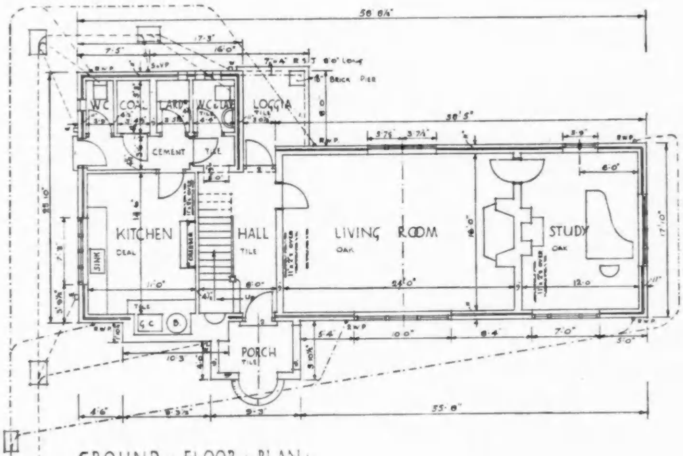
The "New Homes For Old" Housing Exhibition, which was first held at the Central Hall, Westminster, in December, 1931, has obtained permanent headquarters at 53 Davies Street, W.1. Sections of the exhibition, which comprises models, photographs, plans, picture diagrams, etc. of the slums, reconditioning, town planning and new buildings, have been exhibited throughout the country. Enquiries for the loan of the exhibits, which can be had for a small fee, should be sent to Miss Elizabeth Alington, the Hon. Secretary, at the above address.

A HOUSE AT ESHER

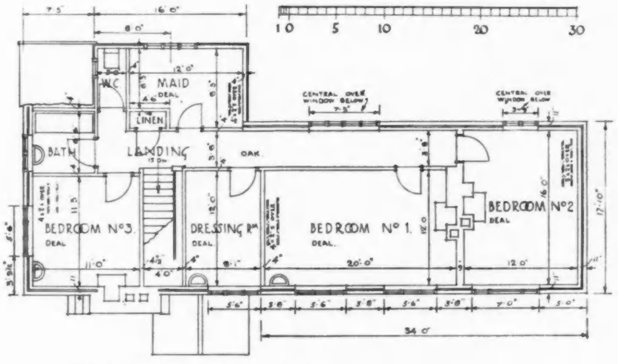


DESIGNED BY IMRIE AND ANGELL

The external walls of this house are 11 ins. hollow, colourwashed, with a tarred plinth. The chimney stacks above the eaves are built of facing bricks, and the roof is covered with hand-made sand-faced tiles. The oak window frames are filled in with steel casements and leaded lights. The floors to the living room, study and landing are in oak, and the hall, loggia and porch are paved with quarry tiles. The woodwork of the staircase and of all the doors on the ground floor is oak.

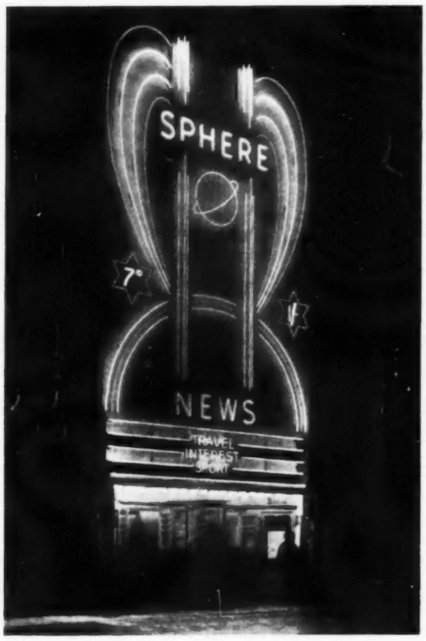


·GROUND · FLOOR · PLAN·



·FIRST·FLOOR·PLAN·

THE SPHERE NEWS CINEMA,


SPHERE
7d
1/-
NEWS
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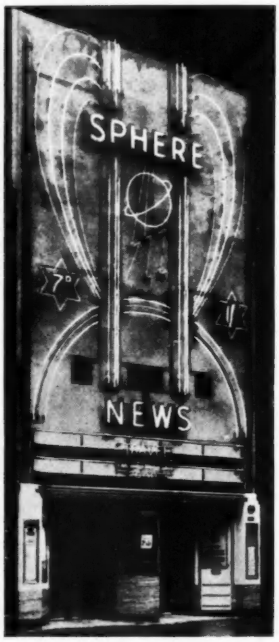
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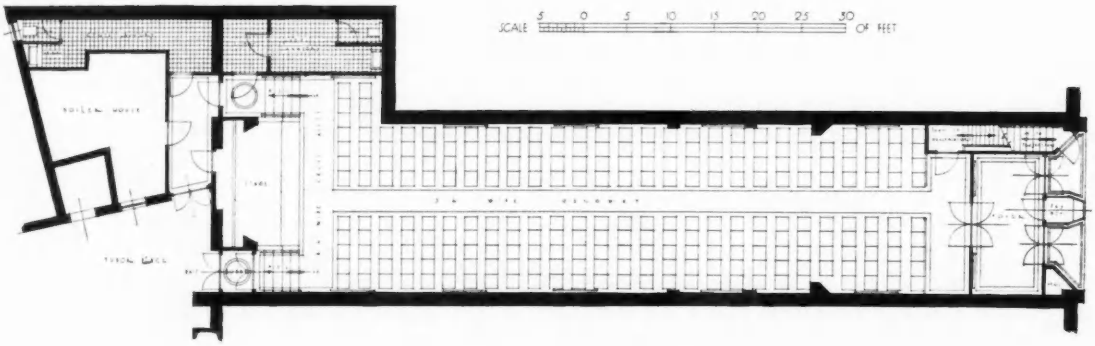
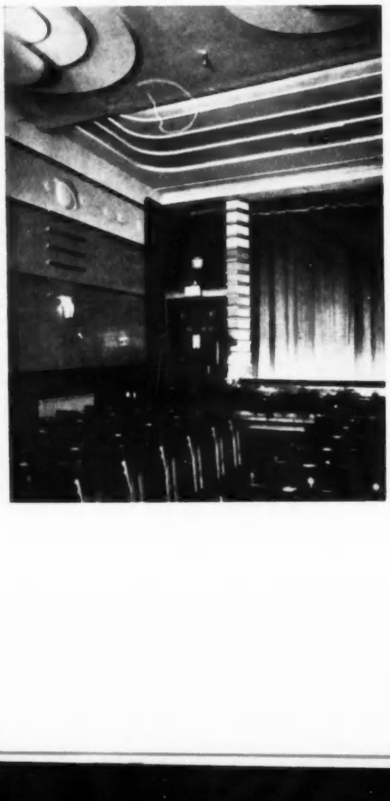
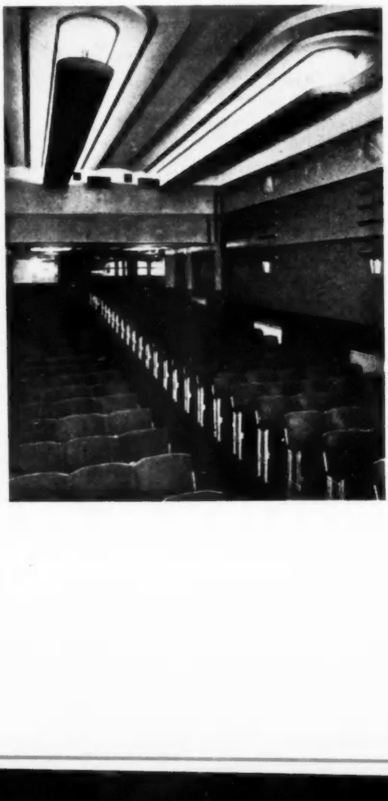
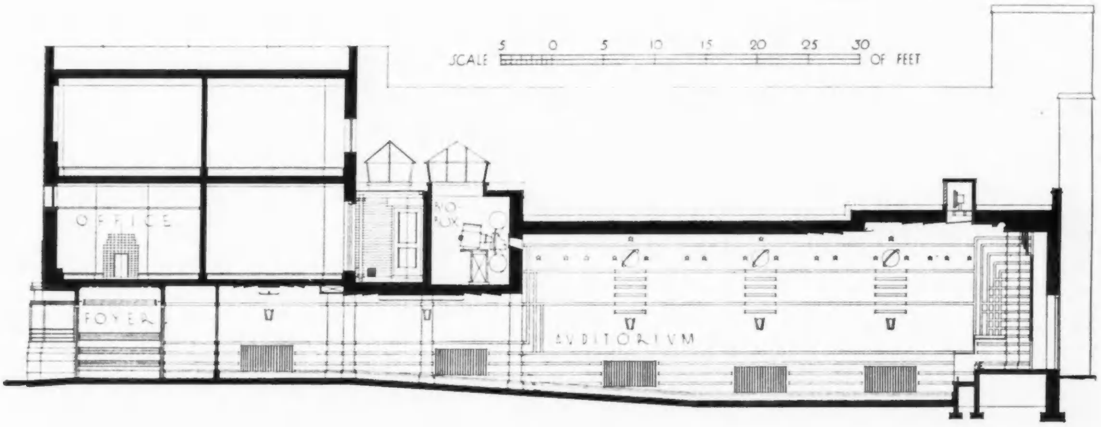
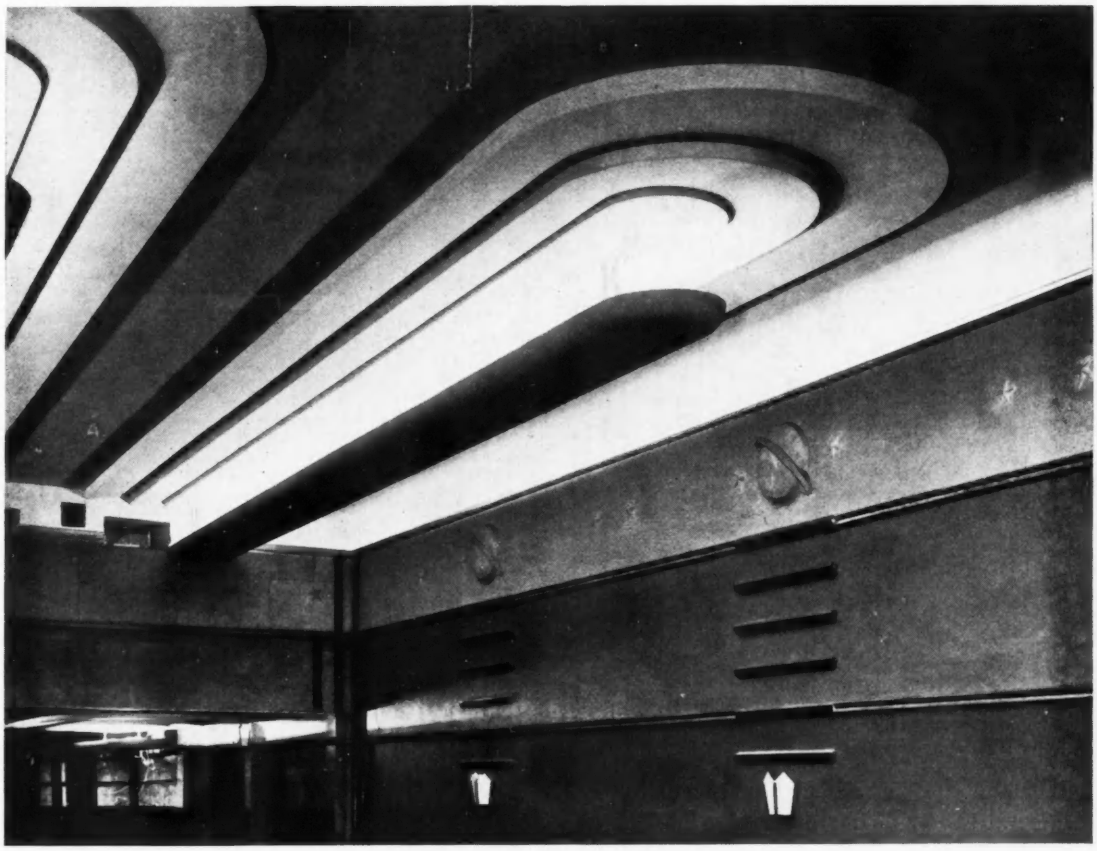

SCALE 5 0 5 10 15 20 25 30 OF FEET
BOILER HOUSE
STAGE
FOYER
EXIT





LONDON: BY ALISTER MACDONALD

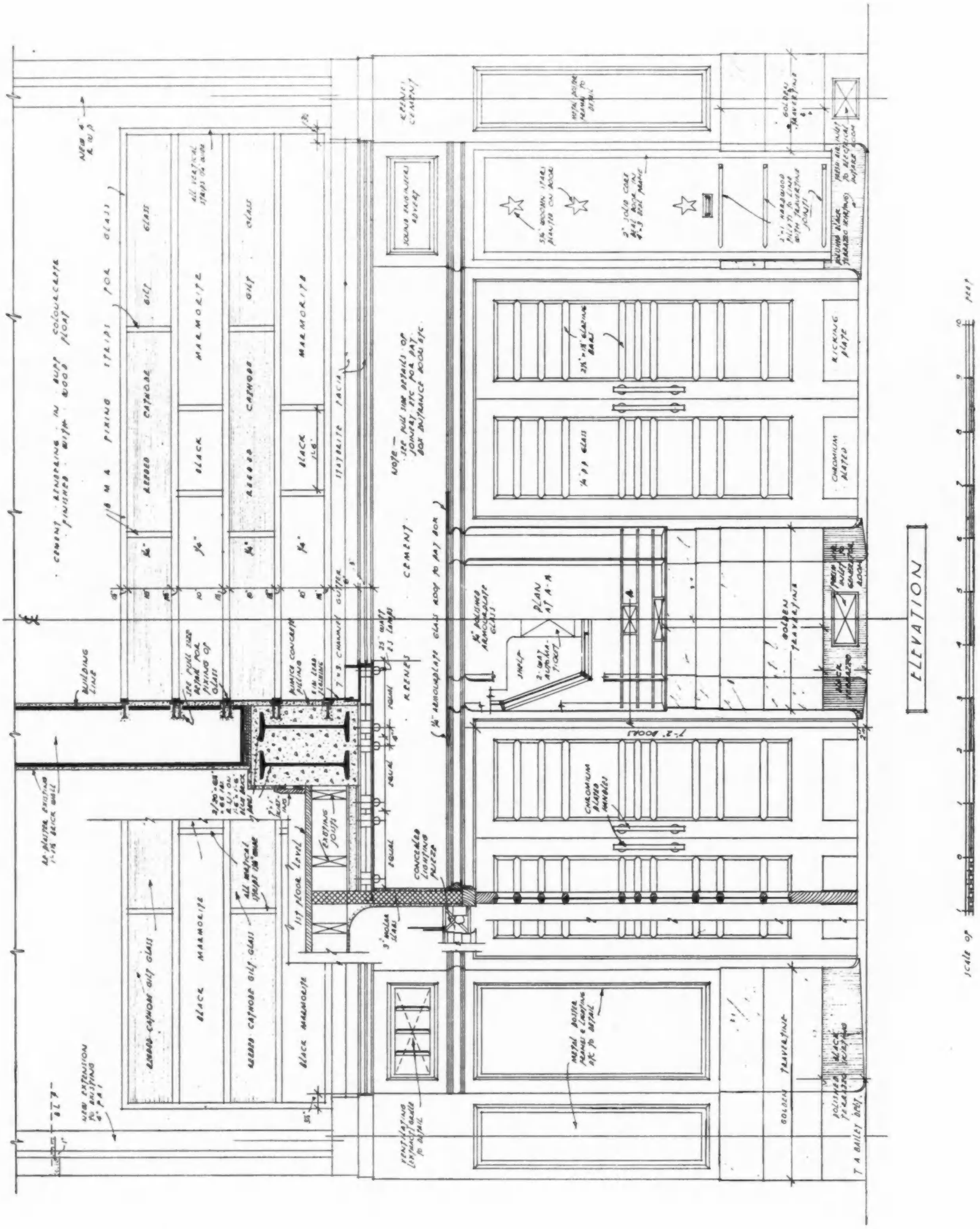




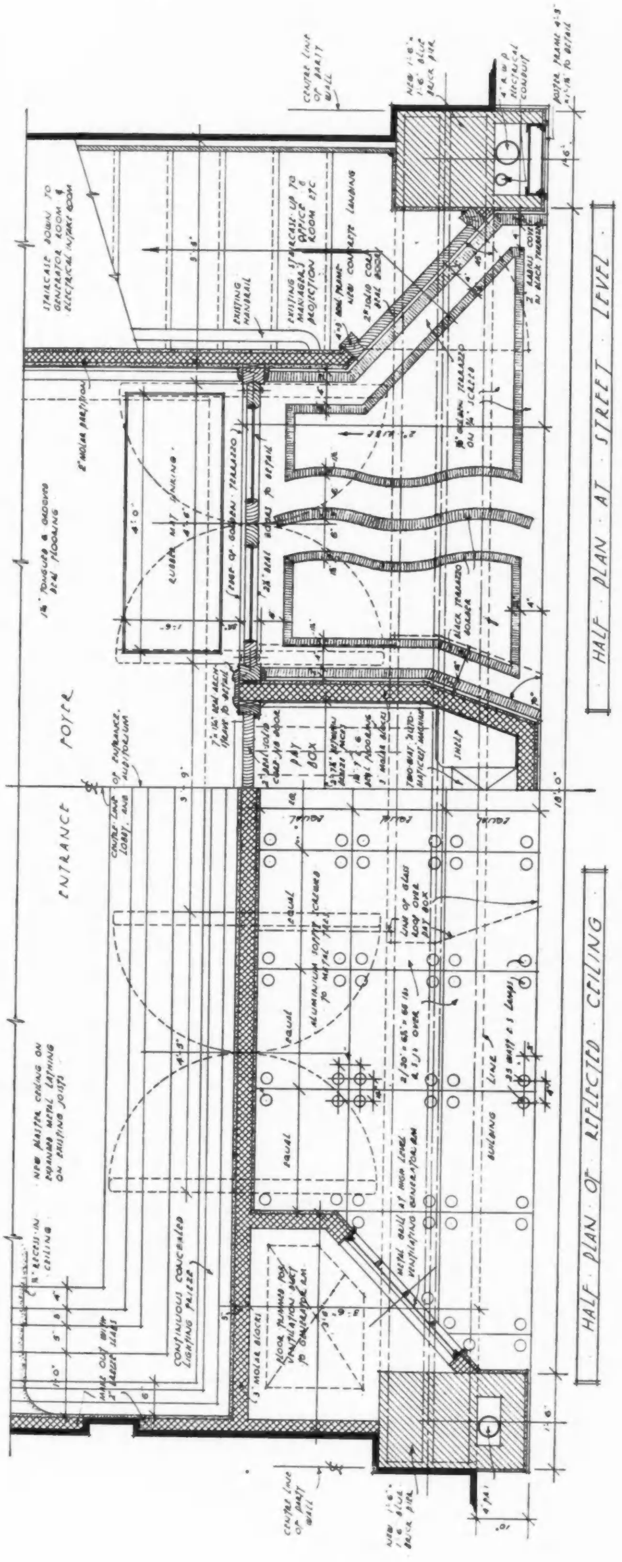
This building used to be the Old Gaiety Cinema in Tottenham Court Road, W.C., reputed to be the last silent picture house in London. There were windows in the old brick façade; they have been blocked in and a mask of buff cement stucco forms a background for the elaborate name-sign, carried out largely in electrical coloured-lighting tubing. Drawings and particulars of the front appear on the following pages.

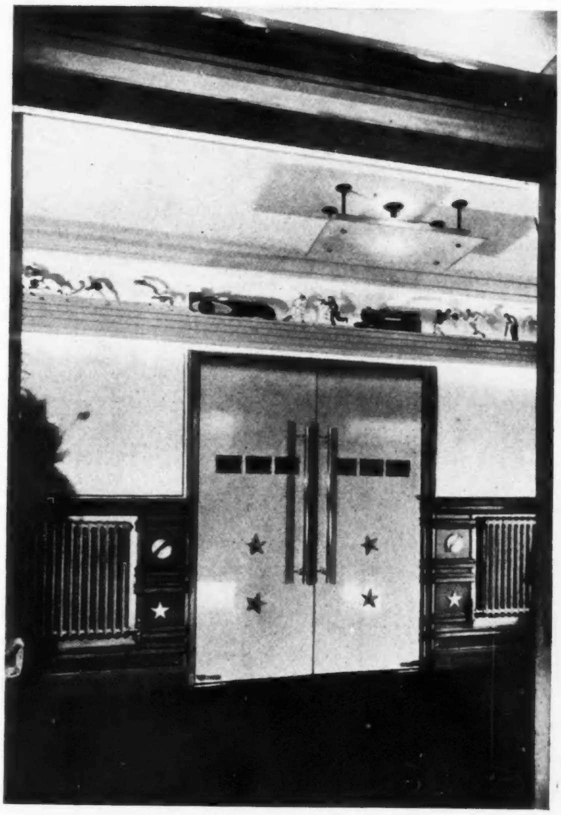
The interior is smaller than the old one, for it has been designed specially to facilitate hourly changes of audience—e.g. there are but five seats per row—and has been entirely remodelled, and decorated simply in gold and terra-cotta.

THE SPHERE NEWS CINEMA,


ELEVATION
SCALE OF FEET
CEMENT RENDERING IN BUFF COLOURCRETE FINISHED WITH WOOD FLOAT
NEW 4" R.W.P.
B M A FIXING STRIPS FOR GLASS
REEDED CATHODE GILT GLASS
BLACK MARMORITE
MARMORITE
ALL VERTICAL STRIPS 1/4" WIDE
STAYBRITE FACIA
7 × 3 CHANNEL GUTTER
BUILDING LINE
SEE FULL SIZE DETAIL FOR FIXING OF GLASS
PUMICE CONCRETE FILLING
5 LB LEAD FLASHING
25 WATT 23 LAMPS
KEENES CEMENT
EQUAL
NOTE — SEE FULL SIZE DETAILS OF JOINERY ETC FOR PAY BOX ENTRANCE DOORS ETC
KEENES CEMENT
SOUND ENGINEERS ADVERT
1/4" ARMOURPLATE GLASS ROOF TO PAY BOX
1/2" POLISHED ARMOURPLATE GLASS
PLAN AT A-A
SHELF
2-WAY AUTOMA-TICKET
7'-2" DOORS
CHROMIUM PLATED HANDLES
1/4" P.P. GLASS
2 1/2" × 1 1/2" GLAZING BARS
CHROMIUM PLATED
KICKING PLATE
5 1/2" BROWN STARS PLANTED ON DOOR
2" SOLID CORE FLAT DOOR IN 4 × 3 DEAL FRAME
3" × 1 HARDWOOD FILLETS TO LINE WITH TRAVERTINE JOINTS
POLISHED BLACK TERRAZZO SKIRTING
FRESH AIR INLET TO ELECTRICAL INTAKE ROOM
GOLDEN TRAVERTINE
METAL POSTER FRAMES TO DETAIL
FRESH AIR INLET TO GENERATOR ROOM
BLACK TERRAZZO
METAL POSTER FRAMES & LIGHTING ETC TO DETAIL
GOLDEN TRAVERTINE
POLISHED BLACK TERRAZZO SKIRTING
VENTILATING (EXTRACT) GRILLE TO DETAIL
2" PLASTER EXISTING 1'-1 1/2" BRICK WALL
NEW EXTENSION TO EXISTING 4" R.W.P.
1ST FLOOR LEVEL
EXISTING JOISTS
CONCEALED LIGHTING PUTTED
3" HOLLOW SLAB
T A BAILEY DRFT.

LONDON : BY ALISTER MACDONALD

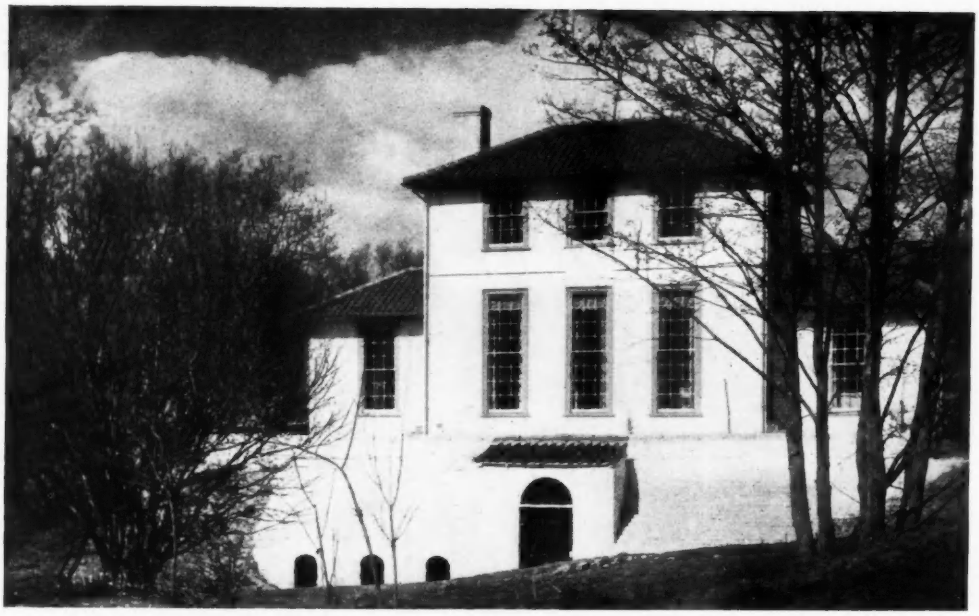

HALF PLAN AT STREET LEVEL
HALF PLAN OF REFLECTED CEILING
ENTRANCE
FOYER
PAY BOX
STAIRCASE DOWN TO GENERATOR ROOM & ELECTRICAL INTAKE ROOM
EXISTING STAIRCASE UP TO MANAGER'S OFFICE & PROJECTION ROOM ETC
EXISTING HANDRAIL
RUBBER MAT SINKING
CENTRE LINE OF PARTY WALL
NEW 1'6" × 1'6" BLUE BRICK PIER
CONTINUOUS CONCEALED LIGHTING FRIEZE
NEW PLASTER CEILING ON EXPANDED METAL LATHING ON EXISTING JOISTS
ALUMINIUM SOFFIT CARRIED TO METAL FRAME
18'0"



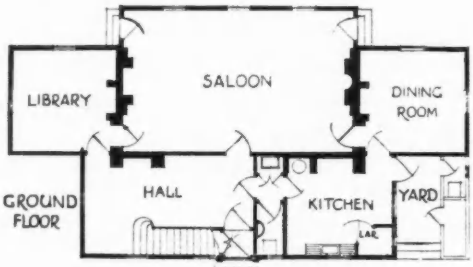
The drawings on these two pages give details of the lower portion of the street front, of which day and night photographs are reproduced on page 368. Prominent between the two pairs of street doors is the pay-box, a superstructure of armour-plate glass above a base of golden travertine with a black terrazzo plinth. Beyond, in the inner wall of the foyer, which extends right across the narrow building, is the single pair of doors, illustrated above, giving access to the auditorium. They are decorated with stars—which, together with the girdled-world sphere, supply mottomotives of which considerable use is made—and surmounted by a running frieze of news events.

The span across the street opening, where the weight of the upper portion of the building is carried by two steel beams on blue brick piers, is faced with a narrow strip of stainless steel with, above, four ten-inch horizontal bands, alternately of black marmorite and reeded gilt glass, the whole enclosed in a frame of bronze. The floor of the entrance is in golden terrazzo, with patterned borders of black terrazzo. The doors have chromium-plated handles and kicking-plates.

TIMBER IN KENT : PHASES OF



DESIGNED BY LORD GERALD WELLESLEY AND TRENWITH WILLS



This week-end house at Hadlow is constructed of timber framework, covered externally with Vancouver weather-boarding, the inside being lined with insulating board. The exterior is painted white, the door and window surrounds bright green; the roof is of black Staffordshire pantiles.

[*From* DECORATIVE ART, 1933.]

LITERATURE

DECORATIVE ART

Decorative Art, 1933: The Studio Year Book. Edited by C. G. Holme. London: The Studio, Ltd. Price 7s. 6d. (paper cover), 10s. 6d. (cloth cover).

IF it is possible to judge an age by its art we should be able, after studying *The Studio* Year Book, to abandon a little of our universal pessimism and to take heart that in the domestic arts, at least, there are signs of an æsthetic revival. *Decorative Art* is a comprehensive survey of the work of the architects and designers, not only of our own country, but of Europe and America as well, and it shows us that a definite progress is being made, year by year, towards greater simplicity, efficiency and attractiveness in the objects which surround us in our ordinary existence.

Unfortunately, however, the material selected for *Decorative Art* cannot be taken as being altogether representative—it is chosen by a discriminating Editor from the best products of each country, and he has had to reject an overwhelming preponderance of designs which are much more generally characteristic of taste today.

Modern domestic art has not yet outgrown its self-conscious age, but although it is still far from being a spontaneous expression in the community, the number of people who can discern the good from the bad is growing, "discarding, as it grows, the rubbish with which it would once have been satisfied, and inspiring the creation of still more products of good design."

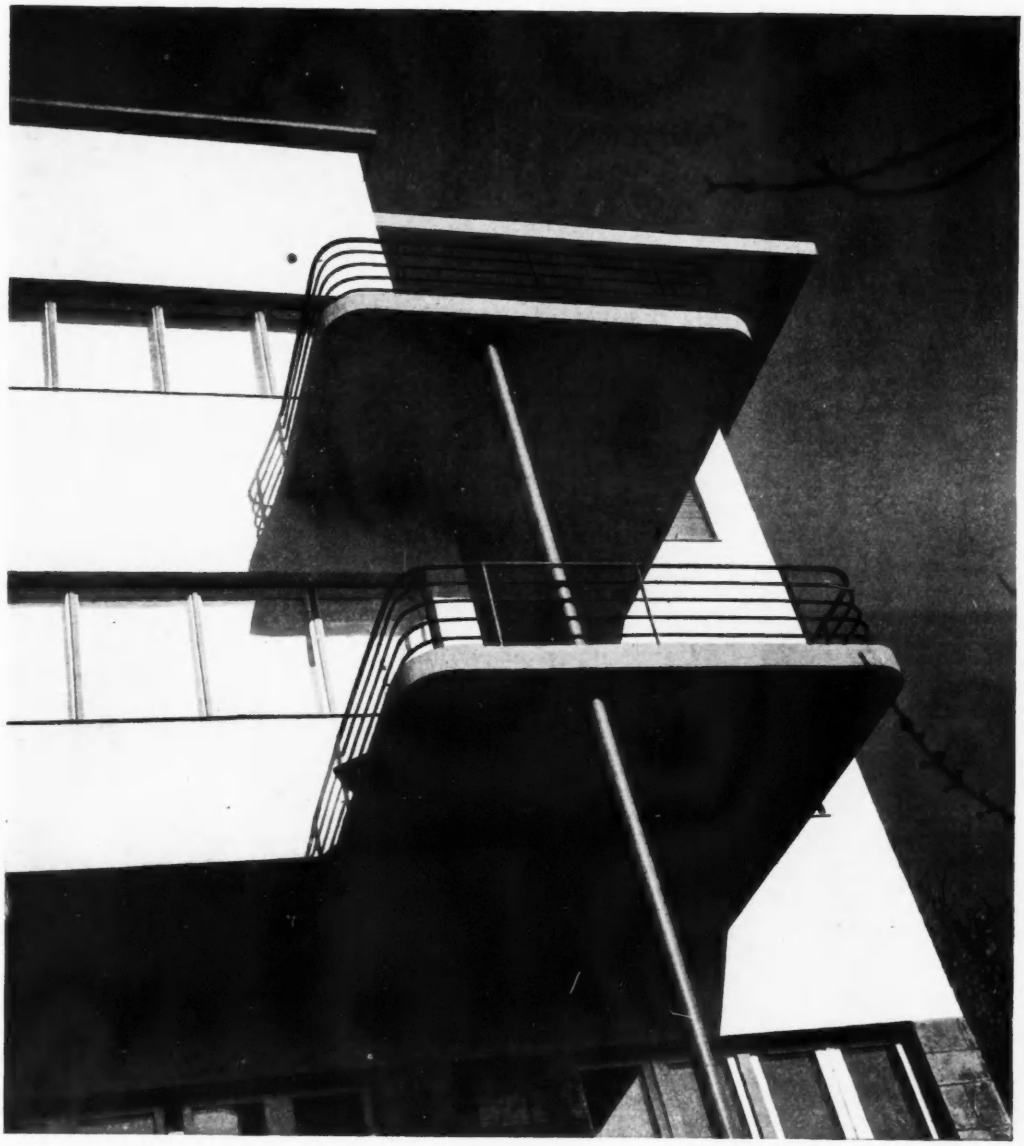
The present Year Book provides an exhibition of much of the best work of the day. As the Editor says, "there is sufficient among these illustrations to stir the imagination not merely of the connoisseurs of art matters, but of every intelligent man and woman, of every enlightened producer, manufacturer, designer and craftsman. Here is the impulse of the century shaping and modelling, with a new fervour, commonplace things, so that these commonplace things become a romance and an adventure. Our houses, rooms, comforts, conveniences, common utensils, are being transformed as if by the touch of a magic wand. Everything lives afresh, becomes newly desirable, under the hands of the modern designer. The adventure of industrial design, however, is one in which all may share, the public, the retailer, the manufacturer, the artist. To bring them together and lead the way to a finer civilization is the function which *Decorative Art* performs." B. H.

ROMANESQUE ARCHITECTURE

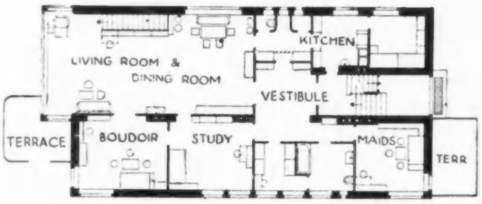
Romanesque Architecture. By F. Eygun. London: Sands & Co. Price 3s. 6d. net.

THIS book has been published in the hope that it "will be of some help both to those who are only beginning and those who have already made some progress in their architectural studies." It treats only of

THE HOUSE : *CONCRETE IN BUDAPEST*



DESIGNED BY L. KOZMA



This house for two families in Budapest was constructed of reinforced concrete, and the pillars of Mannesmann hollow steel tubes. The walls are painted white, the window frames yellow, and the railings grey-blue. [*From* DECORATIVE ART, *reviewed on the previous page.*]

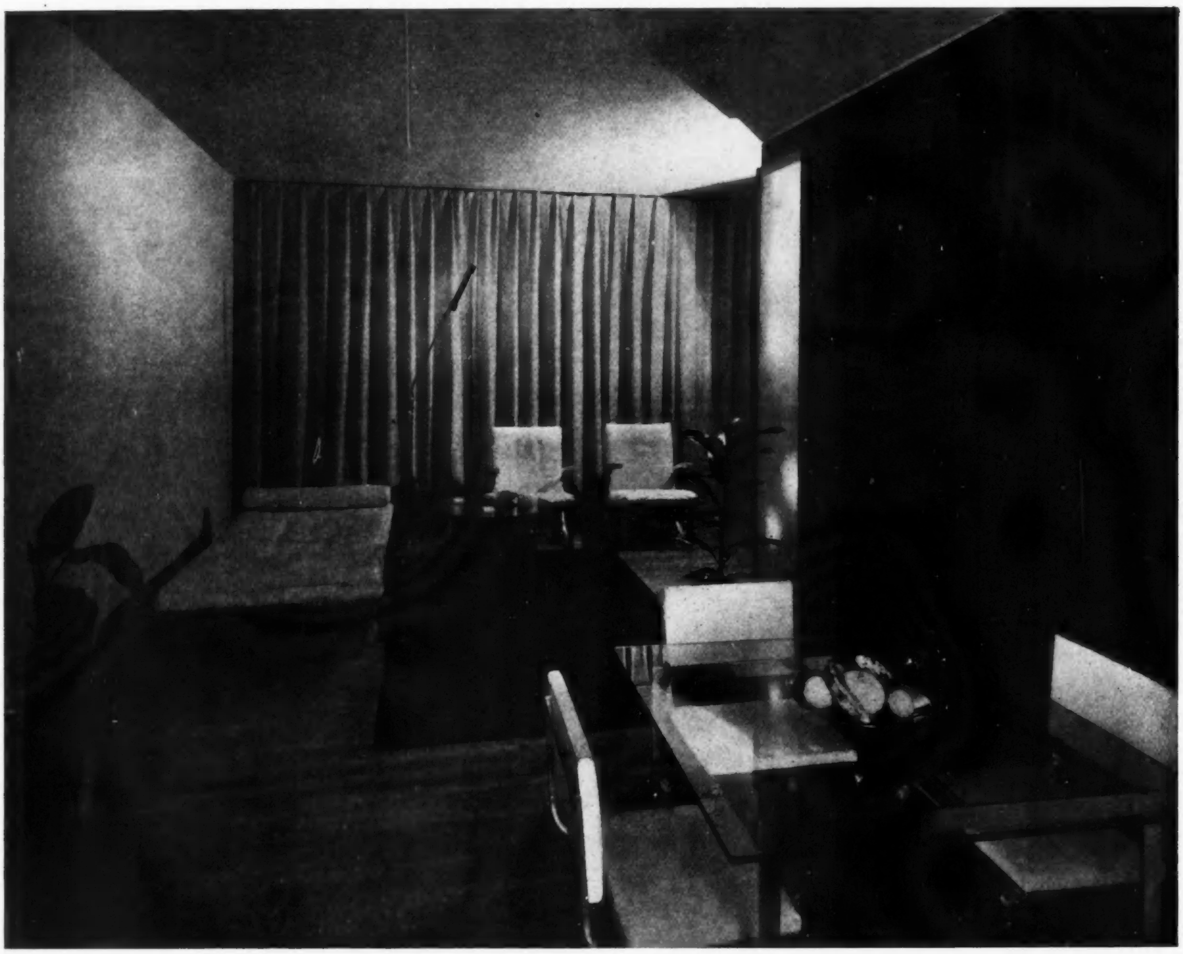
Romanesque architecture, leaving aside as far as possible all mention of church decoration and furnishings, which are to be dealt with in another volume.

The author has divided his subject into three parts. In the first he explains the origin of Romanesque architecture by examining those elements that survived from earlier times and ways of building; he then analyses Romanesque construction by considering the plans and different parts of buildings. Finally, he discusses the general characters of the churches, according to their dates, their local situation and the various schools to which they belong.

The following paragraph from the first chapter sums up, in a few words, the rise and fall of the style :—

> The eleventh century was the archaic period of Romanesque. In the twelfth it came to full maturity, produced its masterpieces, and achieved its many varieties of local forms or schools. Finally, in trying to solve the problem of the vault, it discovered the secret of diagonal

ÆSTHETICS IN AMERICA : PHASES OF



DESIGNED BY CLAUSS AND DAUB

An apartment for Alfred Clauss at Sunnyside, Long Island, New York: view looking from the studio into the living room and showing the glass wall. The curtain on the exterior wall of the living room is natural colour; the walls are white; the furniture chromium-plated, upholstered in white leather; and the panel on the right is of macca wool. [From DECORATIVE ART, *reviewed on page 372.*]

intersecting ribs. And as soon as builders realized the value of this new feature, Romanesque came to an end.

The book has been admirably translated from the French by the Rev. B. V. Miller.

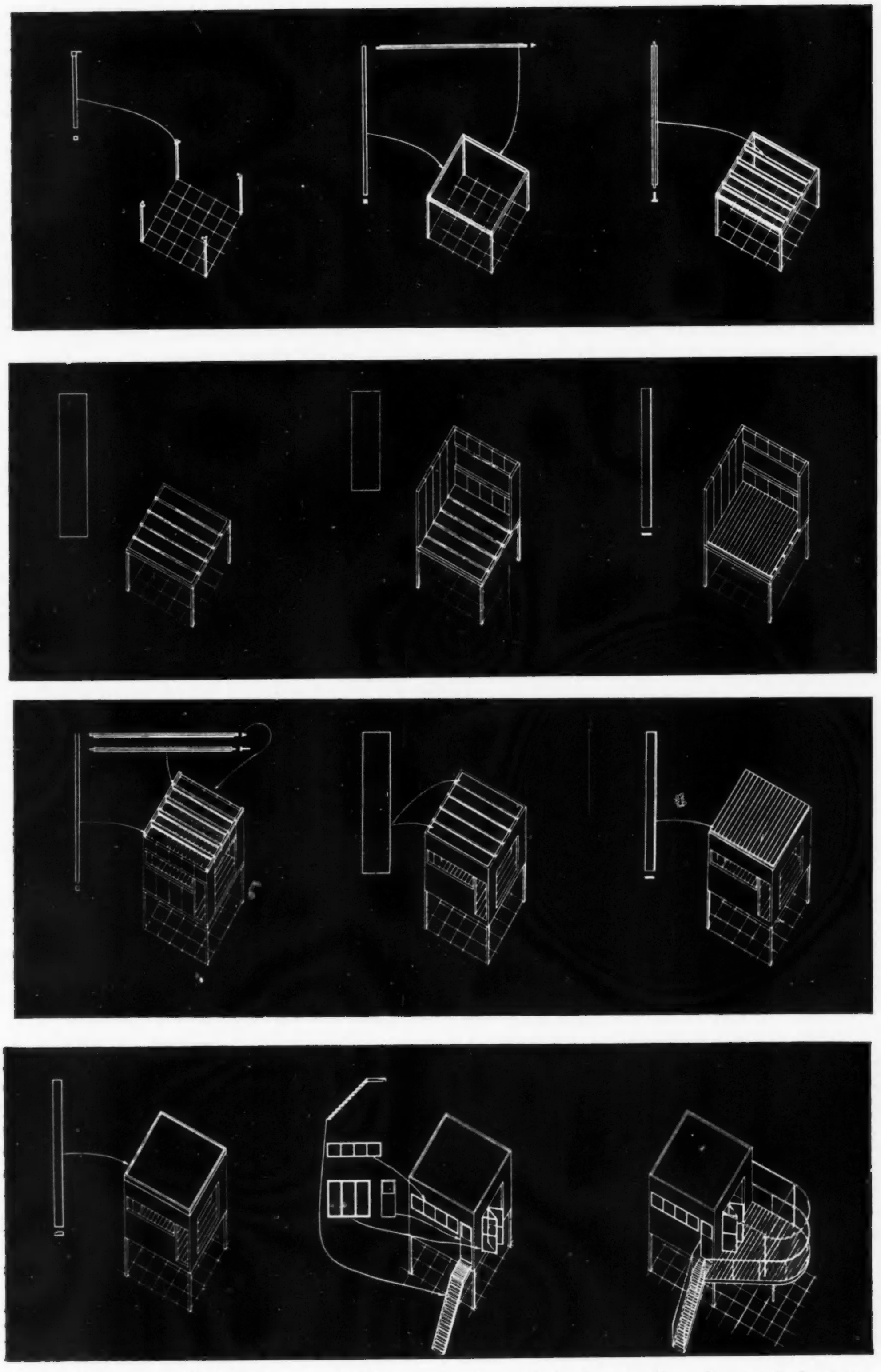
EASEMENTS OF LIGHT

Easements of Light. Technical Paper No. 7. Published for the Illumination Branch of the Department of Scientific and Industrial Research by H.M. Stationery Office, price 9d.

USEFUL though the first edition of this Paper may have been, it is greatly to be regretted that the Illumination Research Committee appointed to assist a Government Department should have issued a second edition which is neither complete nor yet up-to-date and which contains no description of the most important recent invention affecting the assessment of Light values and the measurement of Daylight.

The remarkable developments that have recently been made have been due largely to the work of Mr. John Swarbrick, F.R.I.B.A. To Mr. Swarbrick we owe the Daylight Factor Theodolite, which makes it possible for the necessary data to be obtained in a matter of one or two seconds, instead of, as formerly, in days, or even in weeks or more. This instrument is well known and widely recognized in scientific circles. In fact, a Paper read by Mr. A. C. Stevenson, of University College, London, at the International Congress of Illumination, 1931, in which this instrument was described, is quoted in the Bibliography of the new issue of Technical Paper No. 7. Even the name of Mr. Swarbrick is not mentioned in the Paper, although he is the author of the well-known textbook on the measurement of daylight and the assessment of compensation in Right of Light cases. The Radial Calculating Sheets that he devised for measuring daylight on both the horizontal and vertical planes are not referred to at all, although they have many advantages over the Rectangular diagrams illustrated. For example, the rectangular diagrams can only be used for measuring daylight on the horizontal plane. It is often equally important to be able to measure daylight on vertical walls. One would

THE HOUSE : *UTILITY IN U.S.S.R.*



A set of diagrams, by M. T. Ginsburg, of Moscow, showing method of construction of a standard concrete house for one family. The exterior walls are washed in various colours: sides, pink; front, blue, etc.
[From DECORATIVE ART*, reviewed on page 372.]*

have thought that the Committee would have observed how necessary this is in art galleries, library stack rooms, and on the labels on the ends of drawers in chemists' shops.

Moreover, there is no reference to photographic methods of determining daylight factors, and consequently, no mention of the co-ordinate and daylight factor grilles which Mr. Swarbrick constructed for super-imposition over the photographic records.

Fortunately, the technical journals and the *Journal of Scientific Instruments* have rendered a valuable service in this respect. The papers in the *Journal of Scientific Instruments* were written by Mr. A. C. Stevenson, and, in his last contribution, he showed how the apparent solar paths, at any time of the year, may be automatically reproduced over photographs, taken with the Daylight Factor Photo-Theodolite. There can be no adequate reason for such omissions, as these photographic methods have been used in well-known cases in the Law Courts.

The second edition of Technical Paper No. 7 is most disappointing. It does not give practitioners the assistance that they have every right to expect from a Committee of the Department of Scientific and Industrial Research. The best way in which the Committee can rectify its serious omission would be to produce, without undue delay, a further Paper, dealing with the rapid modern methods of measuring daylight photographically.

A. B.

SOCIETIES AND INSTITUTIONS

HEATING AND VENTILATING

Recent Developments in the Heating and Ventilating of Buildings. By J. L. Musgrave. London: Royal Society of Arts. March 8.

During the recent epidemic of influenza, many people have refrained from attending places of amusement, hotels, restaurants and other public places, owing to the fear of infection. This danger is practically non-existent in buildings where adequate balanced systems of ventilation are installed and skilfully operated.

The regulations for heating and ventilating places of amusement laid down by the L.C.C. set a higher standard than most provincial towns; the standard, however, could with advantage be raised, and health authorities in the suburbs of London and provinces should draw up and enforce regulations at least equal to London conditions.

Recognition of the necessity for sunlight will probably at some not-too-distant date lead to the prohibition of the emission in any form of the products of combustion within the boundaries of cities. Factories and large buildings will instal means for dealing with the smoke and deleterious gases which vitiate the atmosphere; and such prohibition might, in all probability, lead to extensive "district heating," a system in which heat is generated at a central source and distributed through mains under the streets, from which branches are taken to the buildings en route.

Rarely has this system proved entirely satisfactory, owing to the enormous overhead cost of installation and the loss of heat during transmission through the mains.

In a comparatively mild climate such as this, where the demand for heat would reach the peak only on a few days each year, the percentage of overhead costs would be higher than in colder countries. The gas and electricity supply authorities may be looked to to assist in the solution of this problem.

SCOTTISH ARCHITECTS

At a recent meeting of the Council of the Royal Incorporation of Architects in Scotland, held in Edinburgh, a new Stirling Chapter was formed, by resolution of the Council, to include all architects within the counties of Stirling and Clackmannan, with a small district of Perthshire to the north.

The following new members were elected :—

Fellows : Messrs. J. S. Johnston, G. F. Shanks and Magnus Duncan. Associates : Messrs. J. D. Carnegie, W. Collyer, D. Wilson, W. K. Fyall, H. W. Liddle, D. E. Hill, T. A. Jeffreys, A. W. Thornton, G. Arthur, J. Lyall, A. Miller, J. Smith, jr., J. E. W. Dallachy and R. Rennie. Students : Messrs. P. R. Whitson, D. M'Culloch, jr., Arthur Rennie, Miss C. S. Waugh, Messrs. W. R. Tocher, T. W. Hepburn, J. A. D. Mair, J. D. Allan, Allan Stevenson and John Steel.

THE SKYSCRAPER

American Architecture. By Afred Bossom, M.P., F.R.I.B.A, Liverpool Architectural Society. March 1.

In quite early times, the steel frame of the skyscraper took on a form that we have not yet reached in England. It was approximately standardized, supports or stanchions were placed about 20 ft. apart in either direction, and run from basement to roof. These steel frames very much resemble the bones of the human body, and upon these the entire remaining fabric is tied; the walls of constructions forty stories high will be thinner than those of a three-story building in England.

If two buildings exactly similar were to be built, one in Liverpool and one in New York, and were started at the same time, the bricklayer in America would get five times as much per day as the Englishman; the plumber, the carpenter, the mason, three-and-a-half times as much. And yet the completed building in both countries would cost almost the same. The different forms of organization make this possible; the waste of time that we have unfortunately allowed to creep into our methods of building does not exist in America.

The most highly-paid man on the building in that country is the one who has charge of the sending up of the materials to the various workers, the man who works the hoist which appropriately feeds the workers just at the right speed, not over-burdening them nor keeping them waiting. It is amusing to think that his opposite number in England is the lowest-paid man. One often goes through an English building and sees the men either cluttered up with surplus material or waiting for material to be brought up to them, all of which means that someone has got to pay the bill for time that is not constructively used.

In many of these buildings, no window is open below the sixth floor, so that the motor-car fumes do not enter, but the ventilation is undertaken in a way quite different from anything we have. The air is pumped down from the roof to the basement where it is washed and warmed; it is then pumped up and pushed into rooms from hundreds of small jets at ceiling level and then sucked out at floor level. Hence one only breathes absolutely clean air; the dirt walked in from one's shoes is sucked away from them and not blown into one's face.

We do not want tall buildings, they don't suit us, but we can learn that we should take hold of our towns and town plan them with the enthusiasm with which the Americans have zoned all their cities.

THE WELSH SCHOOL OF ARCHITECTURE

Two lectures have recently been given to the students and staff of the Welsh School of Architecture, the Technical College, Cardiff. On Monday, February 27, Mr. George L. Jennings, M.I.H.V.E., A.M.I.GAS E., of the British Commercial Gas Association, spoke on "Smoke Abatement and Gas from an Architectural Point of View,"

On Tuesday, March 7, Mr. R. J. Tott, of Messrs. Waygood-Otis, Ltd., exhibited and explained two films showing the construction of the Empire State and the Chrysler Buildings, New York.

SOUTH WALES ARCHITECTS' MEETING

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) a lantern lecture on "The Limits of Professional Design" was given by Sir E. Owen Williams, K.B.E., at Cardiff on March 2. Mr. E. A. Ward, F.I.O.B., presided.

Sir Owen Williams dealt with the present-day significance of design, the way in which it had become almost the sole prerogative of a professional in spite of the fact that the financial responsibility for design was in common law the contractor's. He defined the exact purpose for which a professional adviser was employed, and suggested that the professional adviser who did not set definite limits to the designing side of his function was doing poor service to his client. He also pointed out that the standardization of materials and articles was rendering the position of a professional adviser more particularly selective rather than a designer of detail and that this would reach its logical conclusion when the designer and contractor were one as was the case with all modern constructions which were not trammelled by professional convention. The professional would then be restricted to his true function as an adviser and selector and would not interfere with the free design by the constructor to facilitate his own operations.

A vote of thanks was proposed and seconded by Mr. Percy Thomas, F.R.I.B.A., and Mr. F. J. Thomas respectively.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The Housing Bill

During the Report stage of the Housing (Financial Provisions) Bill, Sir Hilton Young accepted an amendment, which was agreed to, to the effect that every house to which the Bill applied should be provided with a fixed bath.

In moving the third reading, Sir Hilton Young outlined the plan by which he said the Government intended to wage war on the evil of the slums. He pointed out that there was a clear demand in the country for action, and he recalled the fact that it was more than 60 years since the first provision was made by Statute for slum clearance. In all those 60 years the average annual rate of persons affected by the demolition of the slums had been less than 3,000 a year. It was 14 years since a subsidy was devoted to slum clearance, and in all those 14 years the total number of houses affected was no more than 15,000; some few more than 1,000 a year. There had been no progress adequate to the evil. Subsidies had only succeeded in scraping the surface of the evil.

There could be no further delay or trifling with the problem, and he proposed to call on every local authority which was a housing authority to prepare a survey of its area from the point of view of slums, and to follow that survey with a programme for the abolition of the slums so revealed. A distinction would be made between those areas which could be dealt with by reconditioning and those which required the more radical remedy of clearance. It would be suggested that the programme should state the periods during which each of the areas would be dealt with. Every house that was unfit for human habitation should be dealt with as quickly as possible —the quicker the better.

The Government would stimulate and assist the local authorities in the preparation of their surveys and programmes. That was in general the function of the general inspectors of the Ministry, but there was a certain weight of inertia to lift, and, therefore, he proposed to assist the local authorities in the preparation of their surveys and programmes by a flying squad of special experts from the Ministry of Health, whose function would be to stimulate initiative where such stimulation was needed and to give technical assistance and advice in the preparation of the programmes. There were ample powers under the Act of 1930 to enable the Minister to carry out this programme in consequence of the passage of the Bill, and in case of need there would be no hesitation in putting those powers into force. He had every confidence in the willingness and enthusiasm of the local authorities to join hands with the Government in a slum clearance campaign. The scheme would not involve any further legislation, but without the passage of the Bill any such attempt as he had outlined would be doomed to failure.

The rejection of the Bill was moved by Mr. Greenwood, on behalf of the Labour party. Mr. Greenwood declared that the only idea of the Bill was a return to private enterprise. It did not contain a single constructive idea.

This motion was, however, negatived by 233 votes to 66, and the Bill was read a third time.

Contracts for Waterloo Bridge

At question time, Mr. Duncan asked the Minister of Transport whether the contracts for the reconstruction of Waterloo Bridge would be offered by public tender; and whether they would be let subject to his approval.

Mr. Stanley said that it was a condition of all grants from the Road Fund that his approval of any arrangement as to tenders and of any contract for constructional works should be obtained, but the procedure to be followed in inviting and accepting tenders for the reconditioning of Waterloo Bridge had not yet been settled.

Mr. Duncan asked whether there would be open competition for these considerable contracts.

Mr. Stanley said he could not give that assurance. There had been cases where, owing to the special nature of the work, its delicacy and danger, tender had been restricted to special lists, and had not been open. But he would assure the House that no arrangements could be entered into without his consent, and he should not give that unless he was satisfied that full opportunity had been given for competition.

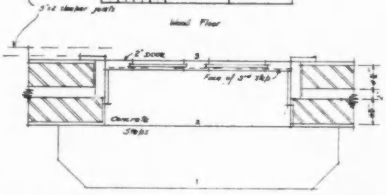
Sir W. Davison asked when the work was likely to be commenced.

Mr. Stanley said that the work could not be commenced without the action of the House of Commons.

QUESTIONS THAT ARISE

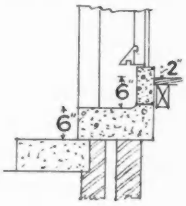
Construction of Steps

¶ "Student" writes: "*I would be obliged if your expert would let me know the best construction at the steps of an entrance door to a house. The last step, preferably of concrete, to be ¼ in. back from face of door as shown on the accompanying sketch. Also, is a flue necessary for a gas cooker in a bungalow?*"



With regard to the query on entrance steps, provision for a mat seems desirable; hence a raised threshold, as shown in concrete in the enclosed sketch, but possibly preferable in oak.

Gas cookers are commonly fixed without flues. Most types have an outlet for oven fumes, but the only possible provision for the heat and fumes arising from the grille and boiling rings is by a hood connected to a flue. This is always a great convenience and, if provided, the oven outlet can be left to follow the same course. Briefly, desirable, but not strictly a necessity.



E. G.

Dry Rot Fungus

¶ A Brewery Co. writes: "*We are having trouble at one of our licensed houses on the Cotswolds with a soft spongy fungoid growth or substance (sample enclosed) which has appeared behind matchboard dados, on many of the walls, and in various other places, even under the bar counter.*

Can your expert advise me as to what the growth is, the cause of same, and any measures which may be taken to remedy the trouble?"

The sample enclosed is a growth of the Dry Rot Fungus, *Merulius lacrymans*. It is evident from your correspondent's remarks that there is a widespread and serious outbreak of dry rot in the house referred to. It will probably be necessary to remove a great deal of the timbering.

When carrying out repairs for dry rot it is essential to trace out the full extent of the damage and to cut out every piece of infected timber, cutting away for 12–18 ins. beyond the last visible signs of attack. The exposed brickwork should be freed from dust and fungus remains, and sterilized by means of a blow lamp passed repeatedly over the surface until this becomes too hot to touch. The new timber used for replacements should be thoroughly treated with a reliable wood preservative, such as a good quality creosote or, where there is objection to the smell of this substance or risk of its bleeding on to paint or plaster, a solution of sodium fluoride may be used (6 oz. of the commercial salt to the gallon of water).

It is evident that the building must be very damp and efforts should be made to dry it out, by increasing the ventilation under the floors, attending to the pointing in the walls, correcting any leakages of water, etc. If there is no damp-proof course it would be advisable to use only pressure-treated joists for the ground floor construction or to replace the floor with a solid floor of blocks laid on a thick layer of bitumen upon impervious concrete.

It is essential to carry out the work of removing infected material thoroughly if further trouble is to be avoided.

W. P. K. FINDLAY
(FOREST PRODUCTS RESEARCH LABORATORY)

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

Barclays Bank, Ltd., Sevenoaks (pages 352, 364-365). General contractors, Ringmer Building Works. Sub-contractors : Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, reinforced concrete work ; Curridge Brick and Tile Co., facing bricks ; Ames and Finnis, roofing ; R. Crittall & Co., Ltd., heating ; R. Grierson, Ltd., electrical work ; Best and Lloyd, Ltd., lighting fittings ; R. W. Brooke & Co., Ltd., wood floors and linoleum ; Wm. Mallinson and Sons, Ltd., entrance doors ; W. Walsingham, painting entrance doors ; Birmingham Guild, Ltd., bronze plates ; A. E. Davis, ironmongery for fittings ; H. H. Martyn & Co., Ltd., bank fittings, interor decoration, furniture, fibrous plaster ; Henry Hope and Sons, Ltd., metal windows ; Stuart's Granolithic Co., Ltd., granolithic paving and stairs ; General Iron Foundry Co., Ltd., wrought iron guard bars and cage ; J. Bolding and Sons, Ltd., sanitary fittings ; Fox Water Heaters (1930), Ltd., gas water heaters ; Wing and Webb, Ltd., ironmongery other than bank fittings ; Robert Adams, floor springs ; S. Parkes & Co., Ltd., spring pivots and casement stays ; James Gibbons, Ltd., tubular steel shelving in strong room and wire mesh cage ; Powell Duffryn Steam Colliery Co., special green stain Presotim ; Waygood-Otis, Ltd., book lift ; Chubb and Sons Lock & Safe Co., Ltd., strong room doors ; Rhodes Chains, Ltd., chains and sleeve axle pulleys for double hung sashes ; Redalon, Ltd., Bull Dog floor clips ; British Challenge Glazing Co., Ltd., lantern light and laylight ; Moreland Hayne & Co., Ltd., steel angle to carry first floor joists ; Leyland and Birmingham Rubber Co., Ltd., rubber flooring and skirtings ; Art Pavements and Decorations, Ltd., marble cubes to entrance lobby ; Pilkington Bros., Ltd., obscured wired Georgian glass ; J. Hall and Sons, Ltd., glacé embossed glass in hall.

"Prince of Wales" Public House, Drury Lane (pages 362-363). General contractors, E. H. Burgess, Ltd. Sub-contractors : Fawcett Construction Co., structural steel work ; Frank Mortimer, stone ; Field and Palmer Ltd., asphalt; H. W. Dutton and Co., central heating and hot water installations ; Acme Flooring and Paving Co., Ltd., wood block flooring ; Benham and Sons, Ltd., kitchen equipment and silver grille ; Geo. Wright and Sons, Ltd., stoves and grates ; Wm. Sugg & Co., Ltd., gas fixtures ; Buckley and Beach, electric installation ; Graystan Art Glass Co., and Best and Lloyd, electric light fittings ; Duckett and Son, sanitary fittings ; Carter and Aynsley, ironmongery ; Crittall Manufacturing Co., Ltd., metal windows ; Haywards, Ltd., folding gates ; Comyn Ching, Ltd., iron staircases ; A. Glover, fibrous plaster ; Comyn Ching, Ltd., and Blunt and Wray, Ltd., metal work ; Art Pavements and Decorations, Ltd., floor and wall tiling and terrazzo ; Frawley and Coyle, wall papers ; W. H. Heath, Ltd., bar fittings ; Express Lift Co., lifts.

House at Esher (page 367). General Contractors : Cummins Ltd.

The Sphere Theatre, Tottenham Court Road (pages 368-371). General contractors, Griggs and Son, Ltd. Subcontractors: H. and F. Badcock, plastering ; F. Burkitt, lantern lights and steel shutters ; The Central Joinery Co. (1927), Ltd., joinery work ; Cinema Supply Co., seating and carpets ; H. G. Jones, curtains ; James Clark and Son, Ltd., exterior glasswork ; Cope & Co., Ltd., wall tiling ; The Gas Light and Coke Co., heating ; Ionlite, Ltd., neon signs ; F. Knight & Co., Ltd., hardware ; F. A. Norris & Co., Ltd., metal windows and concrete pavement lights ; Philips Industrial, projectors and sound equipment ; Ragusa Asphalte Paving Co., Ltd., asphalt; South Western Stone Co., Ltd., golden travertine ; Strand Electric and Engineering Co., Ltd., electrical work.

LAW REPORT

TEMPORARY BUILDINGS AND THE PUBLIC HEALTH (AMENDMENT) ACT

Mitcham U.D.C. v. *Seale.—King's Bench Division. Before Mr. Justice McCardie*

THE question in this case was whether certain temporary buildings such as caravans, converted tramcars, etc., on certain land at Lewis Road, Mitcham, owned by the defendant, Mrs. Mary Seale, were temporary buildings or structures within the meaning of section 27 of the Public Health (Amendment) Act, 1907. The plaintiff Council contended that they were and sought a declaration accordingly, so that they might remove them.

Defendant admitted that she owned the land, but not the structures. She denied that they were temporary buildings within the meaning of the section of the Act.

Mr. S. G. Turner, K.C., said his clients found that caravans, etc., used by the families as dwellings on the defendant's land, were placed on the defendant's land between October, 1931, and January, 1932. It was decided to have them removed, but when the Council's employees went to carry out instructions to remove them, they were refused admission to the ground. Summonses were then taken out against defendant, but they were dismissed by the Croydon Justices, who held that the plaintiffs had not proved that the defendant was the person who erected the buildings. The Bench did not decide the point as to whether the structures were temporary buildings.

Counsel then proceeded to argue that the structures were temporary buildings, and pointed out that section 27 provided that before a person could set up a building he must apply to the local authority for permission, and that that permission must be obtained in writing. There were certain penalties in default of non-compliance with the section. Should an authority decide to demolish the structures, the costs were recoverable.

Mr. Charles Bray appeared for the defendant, and contended that the Council could not succeed under the section in question against a person who was merely the owner of the land, as in his view the owner of the land did not come into the matter at all.

His lordship said if Mr. Turner's contention was right, the power which the section gave the Council was amazing. They could go on any private property and at their discretion pull down these structures.

Mr. Turner said if the Council went beyond the statute it would lay itself open to proceedings.

His lordship said the points raised were more wide-reaching than he had at first realized, and he would adjourn the further hearing for six weeks, to give the council an opportunity of collecting information as to the housing accommodation in the district. Points had been raised in the case which it would be well for the Council to consider and also discuss the course which a public authority could properly pursue if it desired to limit the number of the caravans in its district. He also thought that the defendant might consider whether she could meet the Council's requirements, if the belief was held that they were acting in good faith in the matter.

Royal Visit to a Slough Factory

On Wednesday, March 1, H.R.H. the Prince of Wales visited the factory of St. Helens Cable and Rubber Co., Ltd., at Slough. The Prince was accompanied by his Equerry, Lt.-Col. Hon. Piers Legh, C.M.G., and the Bishop of Buckingham, and was received by Mr. D. Johnstone Sinclair, managing director of the firm, and Mr. H. Evans, the general manager.

The time allotted for the visit was considerably exceeded owing to the great interest shown by the Prince in the various processes of manufacture of rubber flooring, and other goods manufactured by the company.

While many of the manufacturing processes engaged his close attention, he particularly asked questions regarding the general welfare of the workpeople, and made several suggestions with a view to increasing the comfort of the employees.

Import Duties Act

The Board of Trade announce that regulations have been made under Section 8 (1) of the Finance Act, 1919, and paragraph 1 of the 3rd Schedule to the Import Duties Act, 1932, prescribing that certain classes of goods manufactured in and consigned from, a part of the Empire, must contain a minimum of 50 per cent. of Empire material and labour in order to qualify for Imperial Preference, instead of 25 per cent. as at present. The Regulations, which come into force on April 1, 1933, are being published as the Import Duties (Imperial Preference) No. 1 Regulations, 1933, and copies of the regulations, including the Schedule of goods to which the increased percentage applies, will be obtainable from H.M. Stationery Office, Adastral House, Kingsway, W.C.2.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The EALING Corporation is to prepare plans, for submission in six months' time, for the construction of an open-air swimming bath at Perivale.

Plans have been prepared, on behalf of Mr. C. Peppiatt, for the erection of a block of shops and offices on a substructure to be built and attached to the bridge over the Great Western Railway in front of the Broadway Station, EALING.

The EALING Corporation has considered preliminary plans for the erection of a block of 24 flats on a site at the corner of Gunnersbury Avenue and Tudor Way.

Plans passed at ENFIELD : Two houses, Cedar Park Road, for Mr. E. J. Barnes ; showrooms, offices and store, Church Street, for North Metropolitan Electric Power Supply Co. ; additions, Cosmos Lamp Works, Millmarsh Lane, Brimsdown, for Mr. A. J. Maxfield ; 20 houses (amended plan), Riverside Gardens, for Messrs. G. Reed and Sons, Ltd. ; extension to printing factory, off Hertford Road, for Mr. J. Yeomans ; additions, Sangamo Works, Great Cambridge Road, for Messrs. Wimperis, Simpson and Guthrie ; block of 27 flats and shops, Church Street, for Mr. L. A. Bowden ; two factory buildings, Queensway, Ponders End, for Churchbury Investment Co., Ltd. ; two houses, Fir Tree Walk, for Messrs. Bowyer and Bowyer ; restaurant and dance hall, The Ridgeway, for Messrs. W. Jones and A. Teal ; additions and alterations, "Beaconsfield" public-house, 26 The Town, for Messrs. Henekeys, Ltd. ; three shops, Chase Side, for Mr. E. O. Ward.

THE FRIERN BARNET U.D.C. is seeking sanction to borrow £18,400, for the erection of 32 three-bedroom flats and 24 two-bedroom flats in connection with the re-housing of persons displaced in the clearance area.

Plans passed by the ILFORD Corporation : Alterations and additions, 20, Ilford Lane, for Express Dairies, Ltd. ; two bungalows, Shirley Terrace, for Mr. F. Smith ; 25 houses, Holland Park Avenue, for Messrs. Holland Bros. ; 11 bungalows, Glenthorne Gardens, for Messrs. Varndell & Co. ; factory extension, Bogies Alley, for Ilford Electrical Co. ; four houses, Ross Gardens, for Mr. W. Butcher ; two bungalows, Tomswood Hill, for Mr. G. F. Seigerts ; alterations, "White Hart" public-house, Green Lane, for Messrs. Charrington & Co., Ltd. ; two houses, Glencoe Avenue, for Mr. E. Meredith ; additions, 2 to 24 Lime Grove, for Mr. G. Fryatt ; three houses, Cadby Gardens, for Mr. T. Anders ; 36 houses, Longwood Gardens, for Mr. A. Smith ; shop additions, 693–7, High Road, for Mr. J. A. Dartnall ; three shops, Green Lane, for Mr. A. Moore ; new "Fairlop Oak" public-house, Tomswood Road, for Mr. W. Stewart ; two shops and flats, Chadwell Heath Lane, for Mr. A. W. Heppell ; 60 houses, Dawlish Drive, and 10 in Goodmayes Lane, for Messrs. Stoneley & Co. ; new "Maypole" public-house, Fencepiece Road, for Mr. J. W. Hammond; rebuilding 61–3, Cranbrook Road, for Messrs. Hood and Huggins ; two shops and eight houses, New Road, for Mr. P. G. Lees.

SOUTHERN COUNTIES

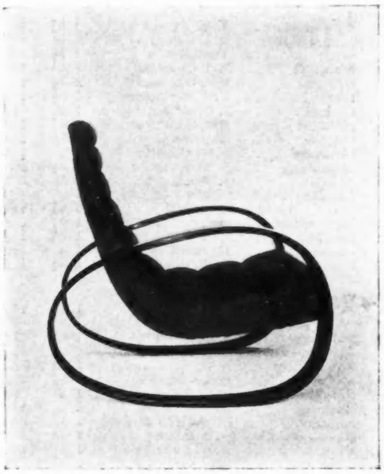
Plans passed by the BEXHILL Corporation : Additions, Cooden Beach Hotel, and additions, Granville Hotel, for Mr. E. Bunce ; eight bungalows, Chestnut Walk, for Mr. W. Piper.

Plans passed at BOURNEMOUTH : Additions, The Horse and Jockey, Wimborne Road, for Messrs. Eldridge, Pope and Co., Ltd. ; additions, The Quadrant, for Messrs. J. J. Allen, Ltd. ; alterations and additions, 67 Southbourne Grove, for Mr. G. T. Richards ; store, Wimborne Road, for Messrs. F. W. Woolworth & Co., Ltd. ; alterations, Castle Laundry, Castle Road, for Mr. R. Bevington ; paint shop and garage, Hovis Van Works, Victoria Park Road, for Messrs. Hovis, Ltd. ; additions, Courtlands Hotel, Boscombe Spa Road, for Mr. W. H. Letley ; additions, First Church of Christ Scientist, Christchurch Road, for the trustees ; conversion into flats, 44 The Avenue, Moordown, for Mr. A. Caplan ; flats, Stourwood Avenue, for Mr. H. Whiting ; two houses, Christchurch Road, for Mr. E. Elliott ; additions to shop, Wimborne Road, for Mr. E. Knott ; two cottages, Wicklea Road, Wick, for W. R. Carter ; three houses, Redhill Drive, for Mr. F. E. Etches ; two houses, Hankinson Road, for Mr. A. F. V. Holly ; conversion into four shops, "The Hermitage," Christchurch Road, Boscombe, for Captain S. J. Shippick ; house and shop, Portman Road, for Mr. W. Cleaton ; two houses, Braidley Road, for Mr. D. H. Horn ; three houses, Southwick Road, for Mr. G. Norman ; alterations and additions, 37 Palmerston Road, for Mr. F. Rigler ; alterations and additions to flats, Meon Road, for Mr. L. G. Smooker ; 14 bungalows, Cattistock Road, for Mr. W. J. Clapcott.

Plans passed by the BRIGHTON Corporation : 18 houses, Carden Avenue, and 26 houses, Bevendean Crescent, for Messrs. Braybons, Ltd. ; eight houses, Henry Road, and eight houses, Wilson Avenue, for Messrs. T. J. Braybon and Son ; alterations, Royal Albion Hotel, Grand Junction Road, for Mr. Harry Preston ; rebuilding, 20-22 Marlborough Place, for Citizens' Permanent Building Society ; arcade entrance, 200, Western Road, for Messrs. Taylor's (Cash Chemists), London, Ltd. ; seven houses, Warmdene Road, for Mr. T. R. Braybon ; alterations and additions, 11, 12, 13, Market Street, for Mr. C. J. Botting ; alterations, 60 West Street, for British Legion Club, Ltd. ; seven houses and four bungalows, Ladies Mile estate, for Messrs. G. Ferguson and Son ; hotel, Hillside, Moulsecoomb, for Portsmouth and Brighton United Breweries, Ltd. ; new wing, 15 Montpelier Crescent, for Mr. R. J. Heather ; shops, 167-9 Lewes Road, for Mr. G. Ayling ; two houses, Hollingbury Rise, for Mr. O. G. H. Watts.

MIDLAND COUNTIES

Plans passed at STOKE-ON-TRENT : Two houses, Colin Road, Trent Vale, for Messrs. P. Bailey & Co. ; four houses, Kensington Road, Oakhill, for Mr. E. Jones ; four houses, London Road, Oakhill, for Messrs. W. Ball and Sons ; four houses, off Scotia Road, Burslem, for Mr. T. Barlow ; institute, off Broad's Row, Smallthorne, for Norton Miners' Welfare Society ; six houses, Longton Road, Bucknall, for Mr. A. Lilley ; 27 houses, Portland Street, Hanley, for Messrs. Salt and Clowes ; two houses, Eastwood Avenue, Burslem, for Mr. H. Bratt ; two houses, Horse Lane, Birches Head, for Messrs. Addison and Forrester ; five houses, Drubbery Lane, Longton, for Mr. E. Lea ; four houses, Cross Pinnox Street, for Mr. T. H. Hand ; additions, "The Mitre," Pitt Street, for Messrs. Parkers Brewery, Ltd. ; house and shop, Ball Green Lane, Norton-in-the-Moors, for Mr. W. Bolt ; alterations, "Ram's Head" Inn, and "New Vaults" Inn, Market Place, for Messrs. S. Allsopp and Sons, Ltd. ; alterations, St. Jude's Hall, Beresford Street, Shelton, for the Stoke-on-Trent Repertory Players ; 18 houses, Leek Road, and Ridgway Road, for Messrs. Holloway and Co. ; six houses, Longton Road, Bucknall, for Mr. A. Lilley ; four houses, London Road, Oakhill, for Messrs. W. Ball and Sons ; three shops, Etruria Road, for Mr. G. H. Broad ; four houses, Wilfred Place, Hartshill, for Mr. J. Breeze ; re-building, "Saracen's Head" Inn, Sandon Road, Meir, for Messrs. J. Joule and Son ; alterations and additions, Harley Street, Hanley, for Messrs. Smith and Bourne ; two houses, Birches Head Road, for Messrs. Addison and Forrester ; alterations to café, Lamb Street, Hanley, for Messrs. McIlroys Stores, Ltd. ; additions, North Staffs Royal Infirmary, Hartshill, for the governors ; extensions, 44 and 46 Church Street, L. M. Stowe.



Bentwood rocking chair in beechwood, lacquered black and upholstered in viridian green cotton fabric. Designed by Heilmann Sevaldsen and manufactured by Fritz Hansen's Successors, Copenhagen. [*From* DECORATIVE ART, 1933 *See review on page 372.*]

Plans passed at SUTTON COLDFIELD : 12 shops (amended plan), Birmingham Road, for Mr. F. W. Wheeldon ; showrooms, Birmingham Road, for Messrs. Flemming and Sons ; additions, Britwell Road, for Mr. H. White ; Sunday schools, Britwell Road, for the Congregational Church Committee ; five houses, Chester Road, for Midland Dwellings, Ltd. ; two houses, Chester Road, for Mr. J. T. Cannon ; six houses, Coles Lane, for Mr. F. W. Eden ; 36 houses, Heathlands Road, for Excelda Housing Supplies ; Roman Catholic Church, Lichfield Road, for the Rev. F. de Captain ; two houses, Maxtoke Road, for Mr. G. E. Clarke ; packing room, etc., Queen Street, for Messrs. Cadby and Son ; 10 houses, Welford Road, for Mr. J. White, junr.

NORTHERN COUNTIES

Plans passed by the BOLTON Corporation : Estate development for 88 houses, off Newport Road, for Earl of Bradford ; 16 houses, Plodder Lane, for Bridgwater Estates, Ltd. ; 80 houses, off Lever Edge Lane, for Palatine Builders and Estates, Ltd. ; estate development, Dean Road, Smithills, for Mr. Nigel V. Ainsworth ; 44 houses, Breightmet Drive, for Mr. Francis Draper ; two houses, Lynton Road, for W. Astley ; four houses, Albert Road, for Mr. A. S. Woods ; two houses, Red Lane, for Messrs. Wolsin and Crank ; two houses, Shepherds Cross Street, for Mr. William Gornall ; seven houses, Crompton Way, for Mr. John Archer ; two houses, Stapleton Avenue, for Messrs. Robert Paiton and Son ; switchgear building, Power Station, for Corporation Electricity Department ; four houses, Salford Road, for Mr. Maurice Welch ; five houses, Thorncliffe Road, for Messrs. F. and H. Douglas ; eight houses, Seymour Road, for Mr. W. E. Yates.

Plans passed by the RAWTENSTALL Corporation : Alterations, 2–4 Bridleway, Waterfoot, for Massey's Burnley Brewery, Ltd. ; three houses, Booth Road, for Messrs. Hodgson and Rayner ; six houses, Bury Road, for Messrs. Ashworth and Hobson.

SCOTLAND

The GLASGOW Corporation has approved plans for the erection of 297 houses in three-story tenements, at Shuna Street, Ruchill.

Plans passed by the GLASGOW Corporation : Stores and workshop, Polmadie Road, for Acme Tea Chest Co., Ltd. ; six shops, Carntyne Road, for Messrs. James Parker, Ltd. ; alterations and additions, 310 Garscadden Road, for Clydebank Co-operative Society, Ltd. ; machinery store, Spencer Street, Anniesland, for Messrs. Collars, Ltd. ; office and workshop, Muirend Road, Cathcart, for Messrs. A. and J. Clark.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	Banbury	S. Counties	1 3	11½
B_1	Bangor	N.W. Counties	1 3	11½
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11½
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid. Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11½
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	Cambridge	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S. Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A_3	Cumberland	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11½
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11½
A	Halifax	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	Jarrow	N.E. Coast	1 5½	1 1¼
A	Keighley	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	Lancaster	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11½
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N.E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	Nantwich	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	Oakham	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	Paisley	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid. Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	St. Albans	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	Tamworth	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N.E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11½
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A_3	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	Yarmouth	E. Counties	1 3	11½
B_1	Yeovil	S.W. Counties	1 3	11½
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2½
General Labourer	,,		1	2½
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	d.	6" s.	d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ½"	,,		14	0
,, ⅝"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2′–14′ long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ¼"	,,	8	6
,, ,, ⅜"	,,	8	3
,, ,, ½"	,,	8	0
,, ,, ⅝"	,,	7	6
,, ,, ¾"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	d.	4" s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	d.	4" s.	d.	6" s.	d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2½
,, ,, 26 oz. ,, ,, ,,	,,					3½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	†3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay add	„		3	0
If in underpinning „	„		5	0
Digging, return, fill and ram „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1½" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	„		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	„	3	6	4	0	5	6	8	0	—		—	
Lead traps	„	—		—		—		7	6	10	6	—	
Screw down bib valves	„	7	6	10	6	12	6	—		—		—	
Do. stop cocks	„	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

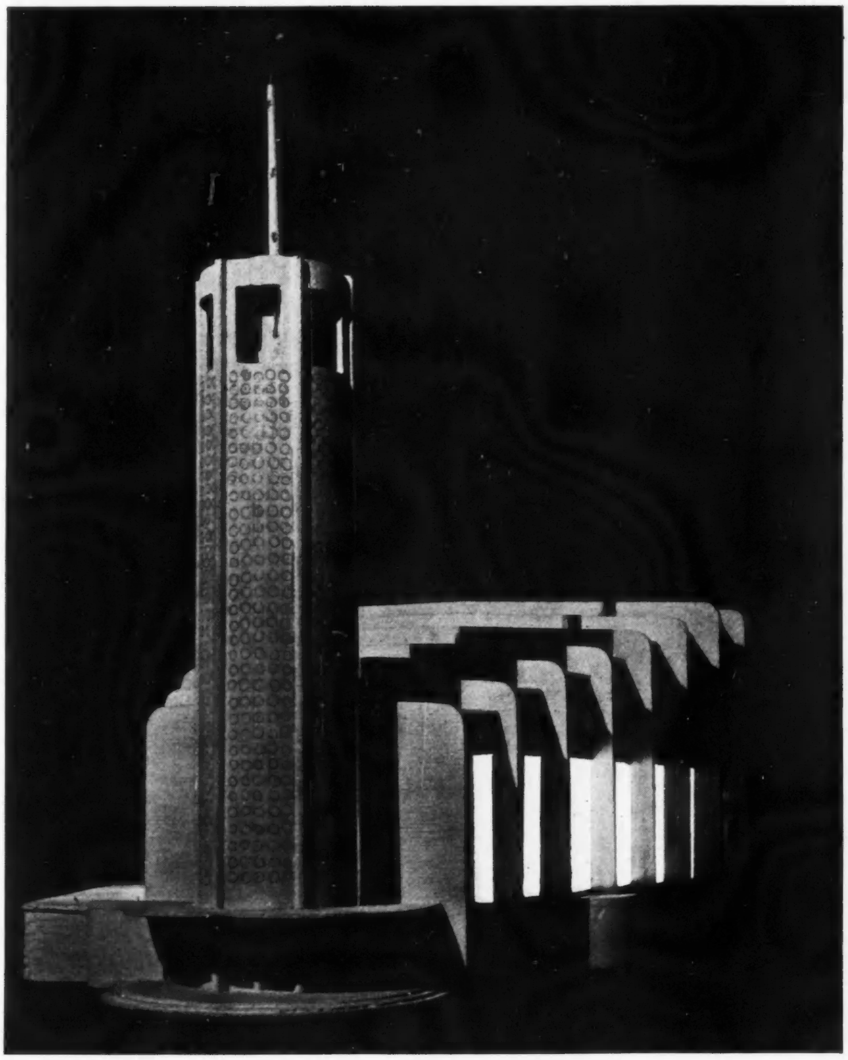
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	„	2	9

A REINFORCED CONCRETE CHURCH

DESIGNED BY WALTER GOODESMITH

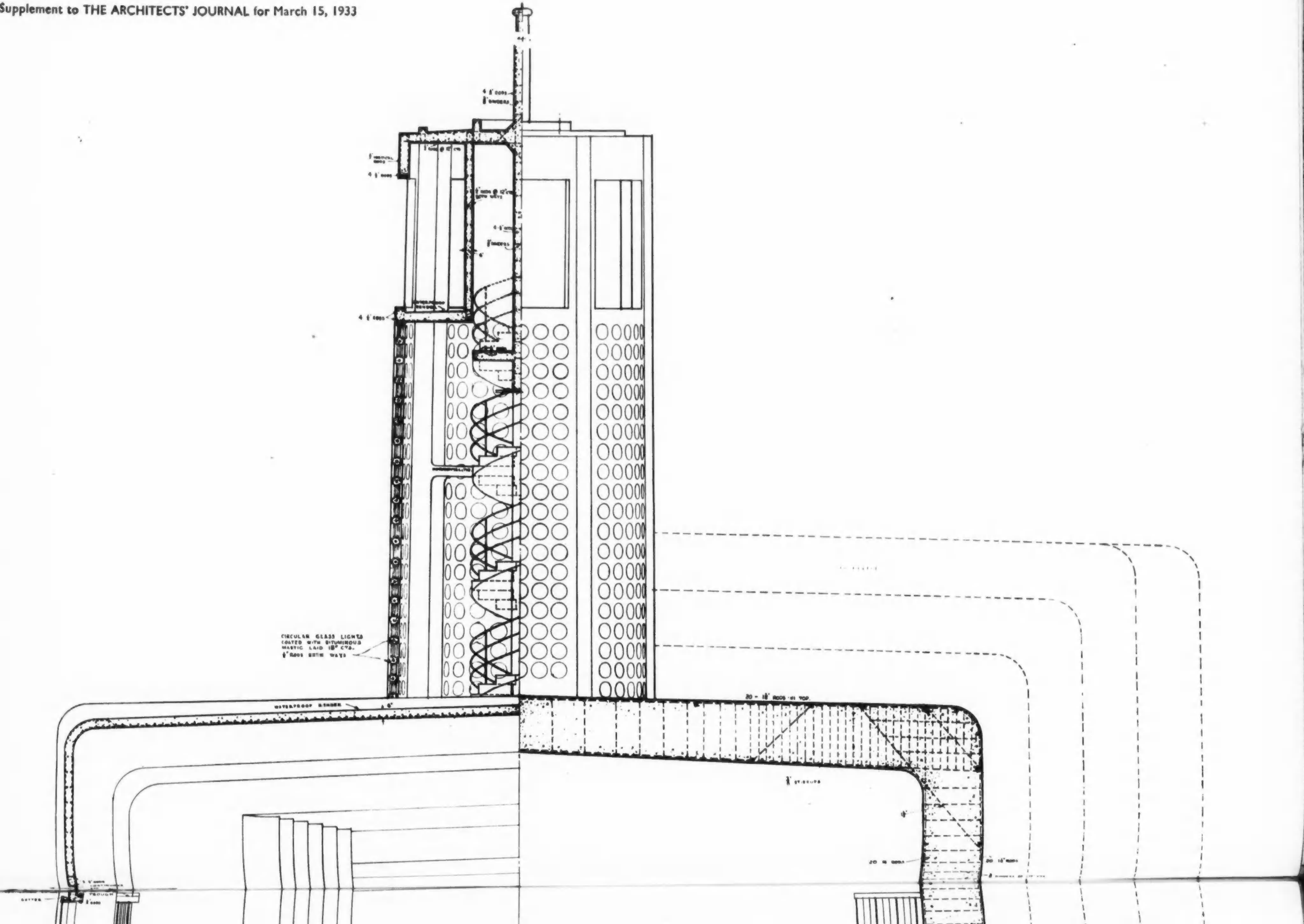


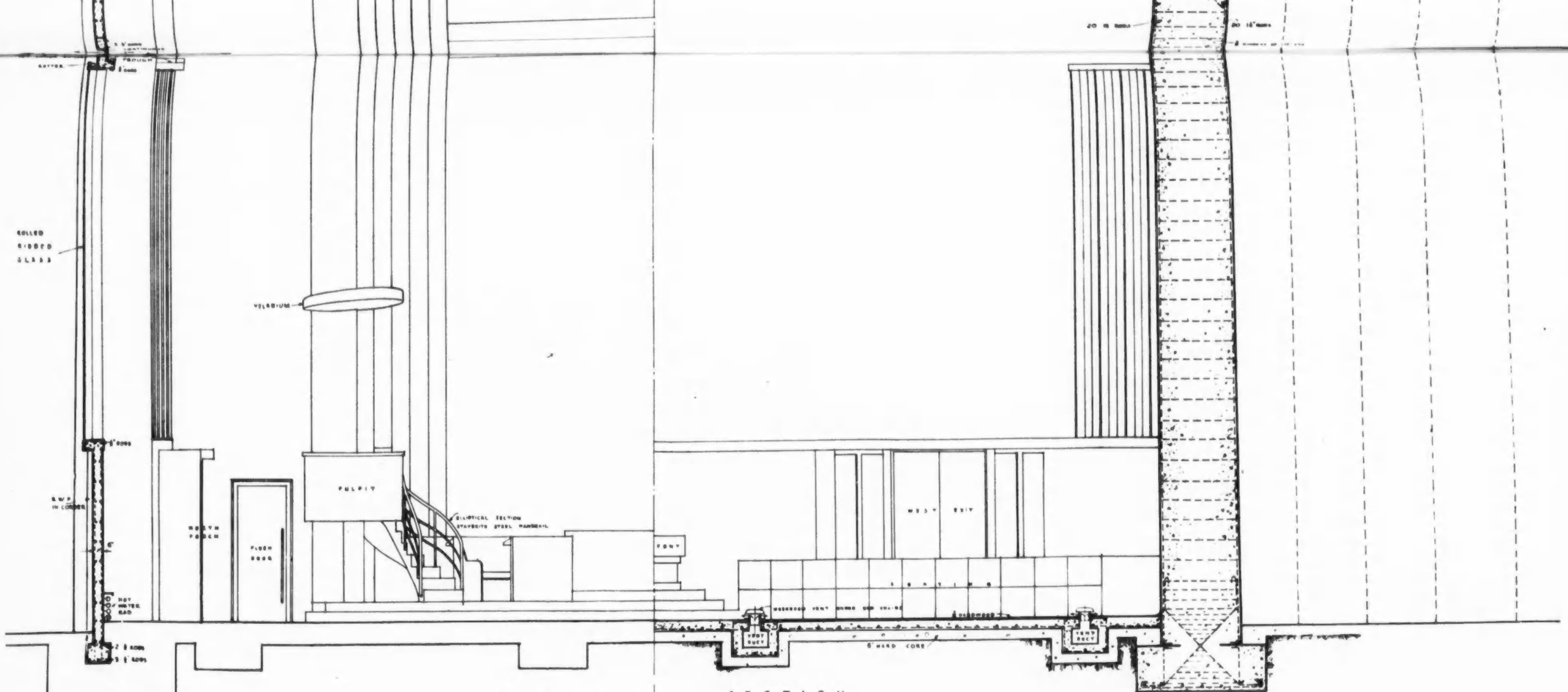
THE MODEL, VIEWED FROM THE EAST END

IN the inner pages of this supplement is reproduced a large-scale drawing of a cross-section through the tower, which, as shown by the above view, completes the east end of the structure.

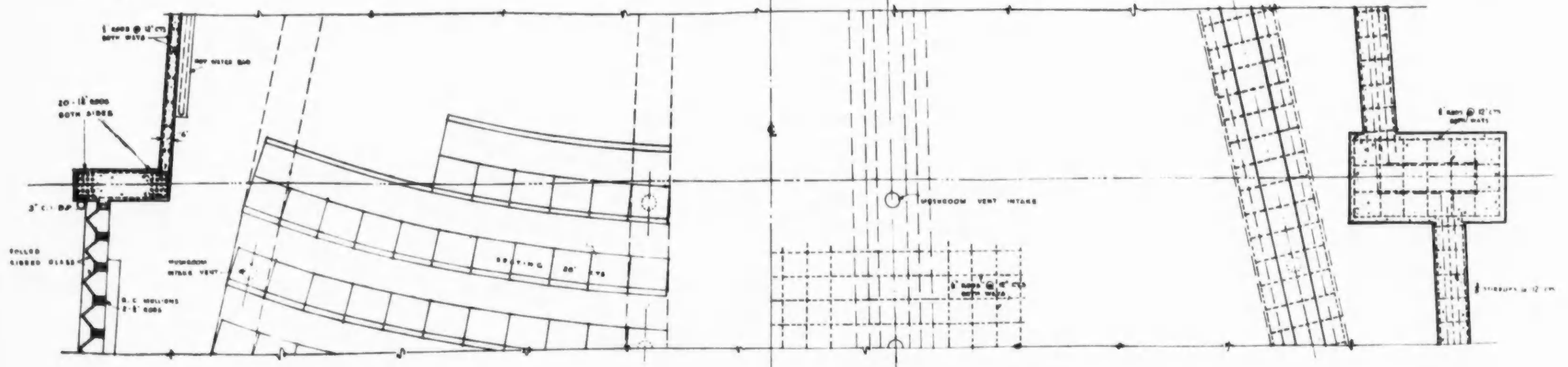
On the fourth page are printed the architect's comments on some salient constructional and other features of the design, for which he was awarded the Portland House Travelling Scholarship of the Institution of Structural Engineers for 1932.

Other photographs and drawings, together with further notes, appear on pages 359-361 of this issue.


4 ½" RODS
½" BINDERS
4 ½" RODS
6"
4 ½" RODS
CIRCULAR GLASS LIGHTS COATED WITH BITUMINOUS MASTIC LAID 18" CTS. ½" RODS BOTH WAYS
WATERPROOF RENDER
6"
20 - 1⅛" RODS IN TOP.
¾" STIRRUPS
20 ¾ RODS
20 1⅛" RODS
GUTTER
TROUGH


GUTTER
TROUGH
ROLLED RIBBED GLASS
VELARIUM
PULPIT
ELLIPTICAL SECTION STAYBRITE STEEL HANDRAIL
NORTH PORCH
FLUSH DOOR
R.W.P. IN CORNER
HOT WATER RAD
FONT
WEST EXIT
SEATING
MUSHROOM VENT DUCT
VENT DUCT
6" HARD CORE
HINGE JOINT FOOTING
20-1½" RODS

CROSS SECTION


20-1⅛" RODS BOTH SIDES
HOT WATER RAD
3" C.I. R.P.
ROLLED RIBBED GLASS
R.C. MULLIONS
MUSHROOM INTAKE VENT
SEATING 20" CTS
MUSHROOM VENT INTAKE
℄
STIRRUPS @ 12" CTS
SCALE
10
5
0
10
20
30
OF FEET

PART PLAN

CONSTRUCTION

The construction adopted consists of a graduated series of rigid frames, identical in all respects except that of size. The ends of the frames have been designed as hinge joints.

The roof filling, of pumice concrete, spans between the frames and falls from the ridge to the outer wall. It curves to meet this, and then carries down vertically to the heads of windows. A gutter is formed along the head of each window, with a fall to the east; a r.w.p. in each corner is connected to the drainage system. The lower portion of the panel wall is in concrete and is carried on a wall beam.

The floor of the nave is sloped towards the chancel and consists of a six-inch thickness of concrete laid on top of a six-inch rough concrete hard core.

The tower is formed of six vertical concrete piers with curved infilling between, of circular glass lights, set in mastic and run in a network of rods and concrete. A circular reinforced concrete stair with centre newel is connected at intervals to the outside piers by horizontal ties, thus reducing the unsupported heights of vertical members.

SANITATION

It seems objectionable to place vestry lavatories in juxtaposition to the chancel, whilst it is necessary to have them en suite with the vestries. Full facilities for their use for both clergy and choir vestries have been obtained by entering them off a separate vestry corridor, without the above objection and without sacrificing their privacy and segregation from the public portion of the fabric. This arrangement also promotes extra accommodation, better planning and cleaner plumbing.

VENTILATION

Artificial ventilation has been provided for. The upward plenum system has been used, with "mushroom" inlets under the end seats of every second row, and natural extraction above the heads of windows by means of permanent grilles, under damper control. The F.A.I. and air-conditioning plant are placed adjacent to the lavatory block.

HEATING

The air is heated in connection with the air-conditioning plant, but provision is made for hot water radiators under windows.

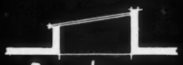
LIGHTING

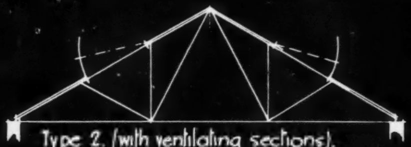
The main lighting of the nave is by continuous electric strip lighting, housed in a cove over the inside heads of windows; a flood light is thus thrown over the ceiling.

Facilities are provided for coloured lighting inside the tower: any required hue is obtained by "mixing" and "dimming."

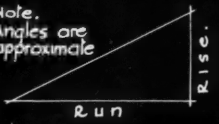
ROOF SLOPES : MINIMUM PITCH FOR VARIOUS COVERINGS.

COVERING :		Rise	Run	Angle.
Asphalte		1½"	10' 0"	43'
Zinc	(allowance must be made for "drips").	1½"	10' 0"	43'
Copper		1½"	10' 0"	43'
Lead	(allowance must be made for 2" drips every 7'0" run	1½"	10' 0"	43'
Ruberoid		1'0"	10' 0"	5½°
Asphalted felt		1'0"	10' 0"	5½°
Corrugated asbestos		1' 0"	10' 0"	5½°
Corrugated iron		1'0"	10' 0"	5½°
Slates :	large	4' 0"	10' 0"	21¾°
	ordinary	5' 0"	10' 0"	26½°
	small	6' 8"	10' 0"	33⅔°
Pantiles		5' 9"	10' 0"	30°
	if bedded	4' 5"	10' 0"	24°
Thin slabs of stone		6' 8"	10' 0"	33⅔°
Cedar shingles		5' 0"	10' 0"	26½°
Italian tiles (ridge & furrow.)		5' 9"	10' 0"	30°
Plain tiles		10' 0"	10' 0"	45°
Oak shingles		10' 0"	10' 0"	45°
Thatch		10' 0"	10' 0"	45°
Patent glazing	see diagram below. Type 1.	1' 9"	10' 0"	10°
	Type 2.	5' 0"	10' 0"	26½°


Type 1.
(with no
ventilating sections).


Type 2. (with ventilating sections).

Note.
Angles are
approximate



GUTTERS AND RAINWATER PIPES.

Circular pipes. :

internal diameter	area in sq. ins.
2" .	3·14.
2½"	4·91.
3" .	7·07.
3½".	9·62.
4" .	12·57.
* 4½".	15·9 .
5" .	19·64.
* 5½".	23·76.
6" .	28·27.
* 9" .	63·62.

* indicates not a British Standard.

Square pipes. :

2½" × 2½".	4" × 2½".	5" × 3".
3" × 2" or 3".	4" × 3" :	5" × 3½".
3" × 2½".	4" × 3½".	5" × 4".
3½" × 3" or 2½".	4" × 4".	5" × 5".
3½" × 2½".	4½" × 3".	6" × 4".
3½" × 3½".	4½" × 3½".	6" × 6".
4" × 2".	4½" × 4½".	9" × 6".

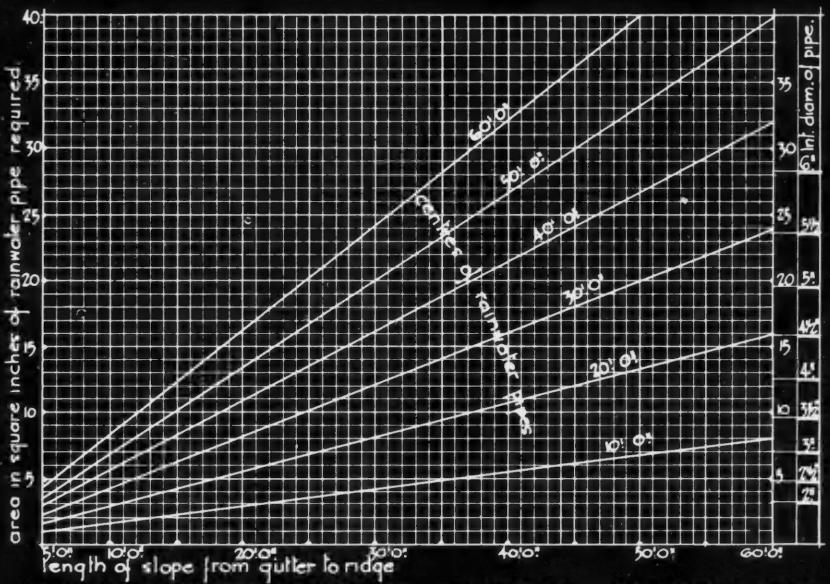


DIAGRAM SHOWING SIZES AND SPACING OF R.W.P's FOR ROOFS.
diagram from Messrs Redpath Brown's handbook

Pipe sizes from the British Standards Institution, specification No 416 - 1931.

INFORMATION SHEET : MINIMUM PITCH FOR VARIOUS ROOFS AND ROOF DRAINAGE.
SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.I.

INFORMATION SHEETS

• 9 •

ROOF PITCHES AND DRAINAGE

•

THIS week's Information Sheet enables the architect to find immediate answers to such questions as: "With what shall I cover the roof?"; and "What must I make its minimum pitch?" The inevitable corollary, the problem of draining away the rain-water, is illuminated by a table and a diagram. The diagram of rain-water pipe spacing is taken from a handbook issued by Messrs. Redpath, Brown, and is reproduced here by their permission. The table of pipe sizes is abstracted by permission from British Standard Specification No. 416-1931, official copies of which can be obtained from the British Standards Institution, 28 Victoria Street, London, S.W.1, price 2s. 2d., post free.

The drawings from which all these Information Sheets are reproduced originated in the office of Sir John Burnet, Tait and Lorne. Far from grudging the broadcasting of information they had been at pains to tabulate for use in the course of their own practice, they embraced the proposal with enthusiasm, thus placing the whole profession in their debt, and incidentally furnishing the student of fine draughtsmanship with specimens for emulation.

It was desired to present these Information Sheets in a standardized form, but no standard filing size has existed, hitherto, in Great Britain. The decision was therefore taken to make the reproductions the same size as the original drawings, which themselves follow the standard dimensions adopted by the American Institute of Architects, as being more convenient than reproduction to the double-page size associated with THE ARCHITECTS' JOURNAL Supplements.

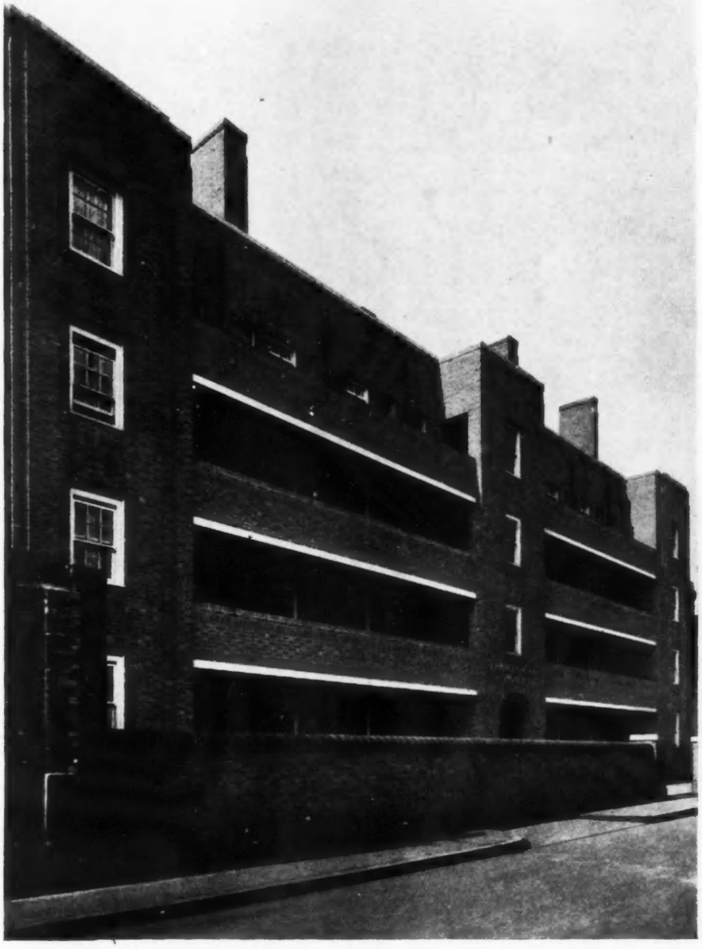
Until further notice, therefore, these Sheets will take the place of the second double-page plate that is usually issued, week by week.

The following is a list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 15—Billiard Table Data.

FRANCES GRAY HOUSE, STEPNEY

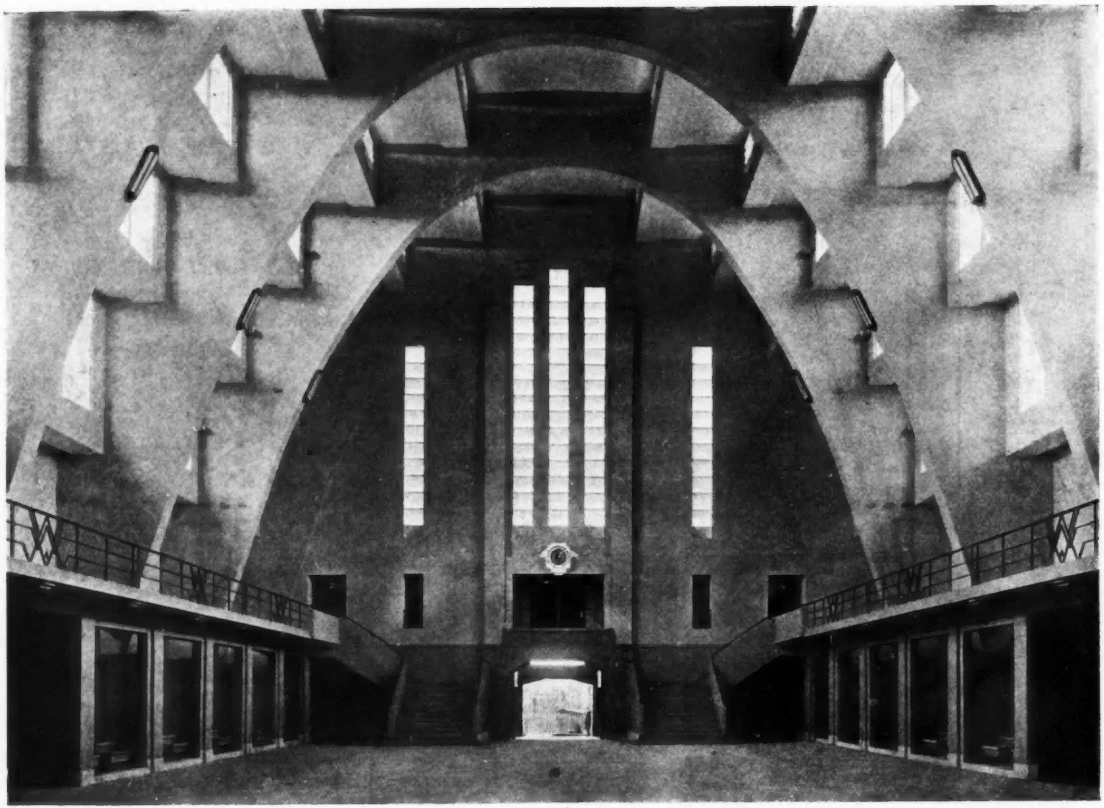
NEW FLATS: BY MITCHELL AND BRIDGWATER



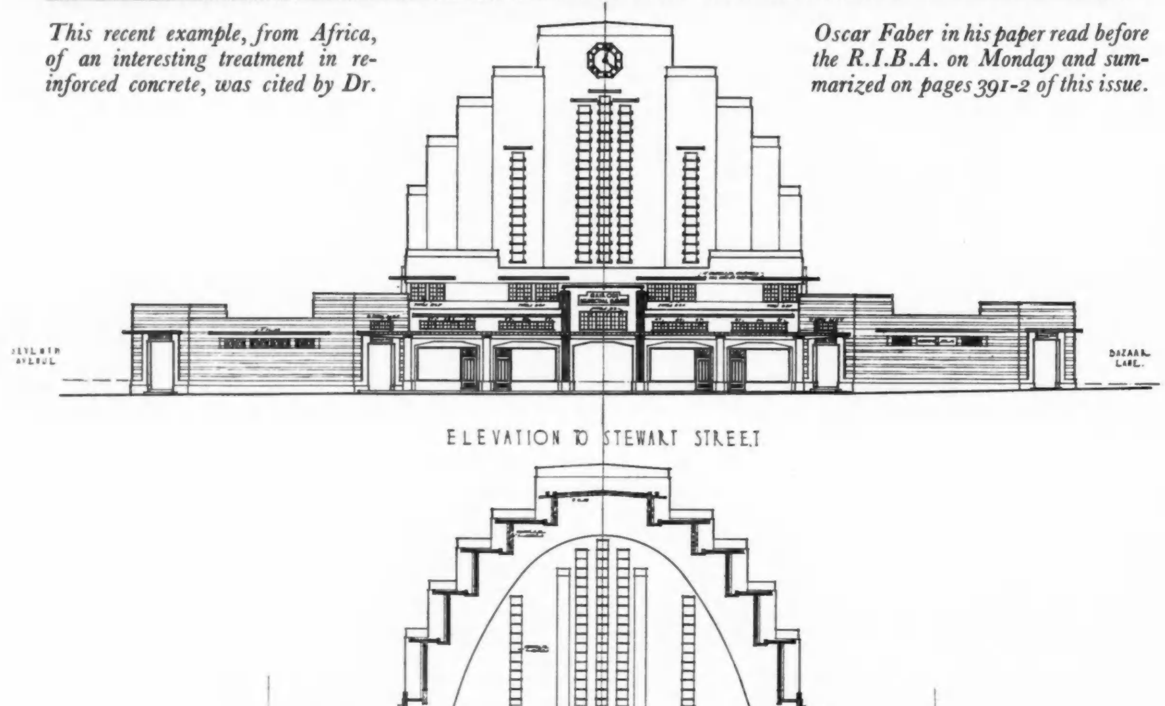
TO-MORROW, March 23, The Duchess of York will open the block of flats in Ocean Street, Stepney, of which the north-east entrance front is here illustrated. Its five stories provide the first sixteen flats to be put in hand by the Stepney Housing Trust, which is sponsored by St. Paul's Girls' School, at a cost, with the land, of £12,500. Funds have been raised partly by gifts and partly by the issue of loan stock at 3 per cent. and £1 shares.

The name over the central arched entrance is in gilt letters; front doors and tree tubs are bright green and windows ivory—a scheme of colouring thrown into effective relief by the purple-brown brickwork and the York stone copings of the walls.

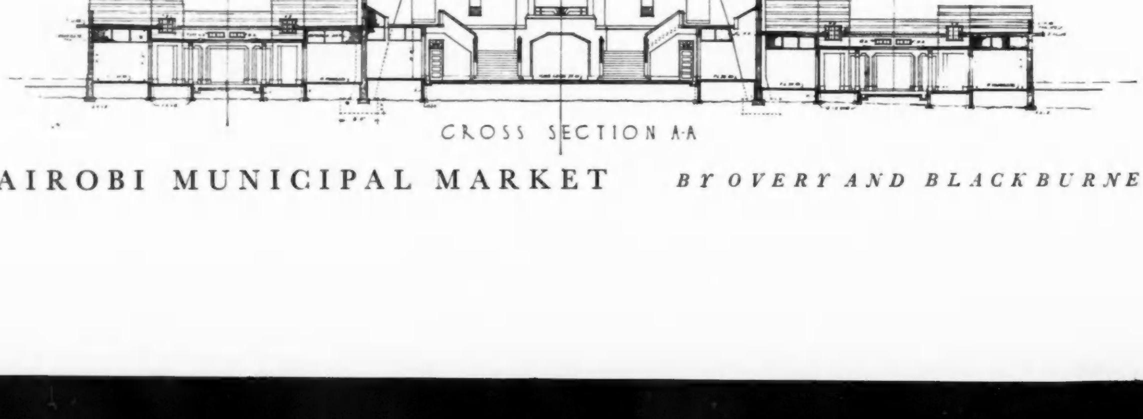
By setting back the building line a small forecourt has been made to give value to the entrance. The concrete floors above one flat, that is to be occupied by a night-worker, have been experimentally sound-proofed with panel boards of reeds 1¼ ins. thick, cork chips in plastic rubber, a layer of plastic rubber, and linoleum.



This recent example, from Africa, of an interesting treatment in reinforced concrete, was cited by Dr. Oscar Faber in his paper read before the R.I.B.A. on Monday and summarized on pages 391-2 of this issue.

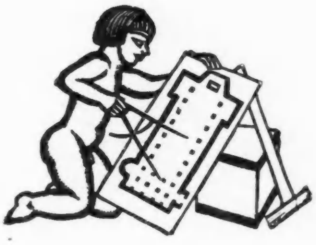


ELEVATION TO STEWART STREET



CROSS SECTION A-A

NAIROBI MUNICIPAL MARKET *BY OVERY AND BLACKBURNE*



MR. J. M. KEYNES AND "THE TIMES"

By spending £15 millions a year more than it spends at present keeping 400,000 unemployed, the State could employ those 400,000 men and get executed £45 millions worth of work.

THE TIMES has again rendered a remarkable service to the nation by the publication of Prof. J. M. Keynes's articles, *The Means to Prosperity.** It has realized that economy on capital works is inappropriate to present-day conditions and has had the courage to say so and to publish—and support—Mr. Keynes's proposals. In doing so *The Times*, as its leading article of March 13 admits, gave expression " to a mass of opinion which has been growing rapidly in weight and range."

Mr. J. M. Keynes has probably a greater international reputation than any other economist living, nor is this the first time that his mathematically acute mind has delved into the morass of practical problems and has come up with invaluable suggestions as to public policy. If he is heeded now—as he has been heeded before—in official circles, these four articles may well be Mr. Keynes's most important contribution to the solution of national problems.

The leading articles in the last three issues of the JOURNAL have been concerned with an analysis, from the economic point of view, of expenditure on building and construction. The first article consisted of a somewhat abstract and highly condensed analysis of the effects on employment of such expenditure. On this basis we were able in the following week to expose an error in a speech on the subject of public works by the Chancellor of the Exchequer and to check our previous calculations by the actual figures which he quoted. The leading article last week established a case for public works by setting out the results of expenditure at the former rate of £36 millions per annum. At the very moment of going to press the conclusions arrived at in that article were confirmed by Mr. Keynes's first article.

It is therefore worth while to give a summary of our argument in general terms. Suppose that £45 millions are spent on actual building or construction work. This will give direct employment to some 150,000 men and indirect employment to another 150,000. The total primary employment of 300,000 men is associated with secondary employment in the food and clothing, etc., industries of 150,000 men. But not all this secondary employment is a net addition. The 300,000 men now in primary employment each received before they were employed some £50 a year in unemployment benefit—a purchasing power of £15 millions in all, employing some 50,000 men. The total net addition to employment is thus 400,000 men.

This involves certain savings to the Exchequer. The saving on unemployment benefit amounts to £20 millions, and on employers' and employees' contributions to £1·7 millions. The increased yield of taxation amounts to £9 millions. The total savings to the Exchequer thus amount to £30·7 millions, or two-thirds of the original expenditure of £45 millions.

We therefore have this interesting situation.

By spending £15 millions a year more than it spends at present keeping 400,000 unemployed, the State could employ those 400,000 men and get executed £45 millions worth of work.

The favourable repercussions of such a policy would, as Mr. Keynes points out, be extremely important not only nationally but to the world as a whole, especially if other countries follow suit.

It is to be hoped therefore that the Government will take notice of Mr. Keynes's articles. In the words of *The Times*, " The official appeal for ' wise spending ' has always implied Government support for the habit, sooner or later."

Every citizen with the public interest at heart will eagerly await the concrete expression of this policy when the Government decide to implement it. As a first step, the Government cannot do better than recommence those schemes which have been postponed. As the statistics collected by the Building Industries' National Council show, detailed plans exist for schemes to the value of over £30 millions on which work could be begun immediately.

If it is true that the Government " goes a good way with him (Mr. Keynes) already in the opinion that credit may be better defended by development than by the dole," and realizes that " it is in fact only by new capital expenditure, however induced, that the balance of the Budget can be safeguarded," then we may confidently expect a resumption of these schemes in a very short time, as a preliminary to a period of carefully-planned national development.

In three words, *prosperity through reconstruction.*

---

*" The Means to Prosperity," four articles published in *The Times* for March 13, 14, 15 and 16.

Mr. Christopher Hussey, Chairman of the Executive Committee, and Mr. Oliver Hill, Architect of the Exhibition of British Industrial Art in Relation to the Home, to be held at Dorland Hall in June and July. (See also pages 388 and 399.)

NOTES & TOPICS

THE EXHIBITION OF THE YEAR

ON August 26, 1931, Mr. Noel Carrington wrote a letter to this JOURNAL suggesting that an exhibition should be held in London in which " the house will be the central unit."

*

> Would it not be a better stimulus to trade [he wrote] than tariff conferences, or nationalist propaganda ? Would it not give the younger generation courage and hope after our present long depression ?

*

The letter evoked a good deal of correspondence at the time. Today, largely through the courage and enterprise of Mr. Christopher Hussey and Mr. Oliver Hill, I am glad to say the idea has actually become a reality. An exhibition is to be held at Dorland Hall in the summer, which will show the best work England's architects and manufacturers can produce. Of this, more in one moment.

*

Meanwhile, the textile exhibition at Fortnum and Mason's is a stimulating selection of the work of contemporary designers, and there has been no hesitation about naming the designers. It is a good company that includes such names as Paul Nash, Marion Dorn and Terence Prentice.

*

There is a compromise section as well as a modern one in this exciting little show. But the former is an attempt to shake hands with tradition, a gesture that lacks the infectious glory of courage.

*

That gesture will be *verboten* at the Exhibition of British Industrial Art in Relation to the Home—the one I wish to talk about. The aim of this Exhibition was officially un-hushed last week by Sir Francis Goodenough and Mr. Frank Pick. Sir Francis said it was not a rich man's show, but that it would illustrate " how all of us can be rich in beauty wedded to utility in our homes." Mr. Pick aptly symbolized the difference between the Victorian home-making outlook and modern views by comparing the aspidistra, once prized and potted, with the cactus, which today satisfies what I suspect Mr. Pick believes to be a transient appetite for stark angularity.

*

Whether the spacious rhythms of the modern movement will be checked depends upon whether we produce some idiot child from our economic depression and allow it to rave its way into ruling, as Germany has done. The Nazis (or the " Nasties " as some call them) with their war on " the art of the Left " may destroy the new German Renaissance and reinstate the florid taste of those feckless outcasts, the Hohenzollerns.

*

I may yet live to see this paper suspended by order of the organization that delights in the initials, B.F., and be saddened by the spectacle of Messrs. Wells Coates, McGrath and Robert Byron being chased along Piccadilly by a mob of black shirts, howling for the blood of those who believe in steel.

*

THE PERSONNEL OF THE EXHIBITION

I have wandered again into parentheses ; let me return to the E.B.I.A.R.H., aforesaid.

*

It differs from every other exhibition held in this country in that it is selective. The various committees are *choosing* the work to be shown, which will be paid for by the exhibitor on a space-rental basis. I believe it will be a worthy successor to the Swedish Exhibition.

*

Mr. Hussey is the chairman of the Executive Committee. He is also of course the brilliant editor of *Country Life*. Furthermore he is an old Etonian, one of the group of O.E.'s who hover, like Jesuits, in the background of honest English commercial life, silently moulding it to their sinister Sitwellesleyan ends.

*

The Exhibition Secretary, Mr. Richard Dudley Ryder, is yet another old Etonian. Mr. Ryder's abilities are as

THE ARCHITECTS' DIARY

Wednesday, March 22

R.I.B.A., 9 Conduit Street, W.1. Third of a series of lectures on Where Londoners Live. "Where Londoners Work." By T. A. Darcy Braddell, F.R.I.B.A. 6 *p.m.*

POSTER ART EXHIBITION, arranged by the L.N.E. Railway Co. *At the Burlington Galleries, Burlington Gardens, W.1.* Until March 25, 11 a.m. to 5 p.m. 11 *a.m.*

ARCHITECTURE CLUB. Reception of the Club by the Building Centre, 158 *New Bond Street, W.1.* 8.30 *p.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—X." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Heraldry." By Sir Gerald W. Wollaston, M.V.O. 8 *p.m.*

LONDON SOCIETY. Visit to the Works of Hoover, Ltd., Perivale, Greenford, Middlesex. 2.45 *p.m.*

NEW HOMES FOR OLD EXHIBITION. At 24 Grosvenor Place, S.W.1. Exhibition entitled: "Housing: The Present Opportunity." Until April 1. 11 a.m. to 7 p.m. 11 *a.m.*

Thursday, March 23

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.1.* "Pressure Distribution under bases and stability of foundations." By Dr. Oscar Faber, O.B.E. M.INST.C.E. 6.30 *p.m.*

INCORPORATED INSTITUTE OF BRITISH DECORATORS. At the London School of Hygiene and Tropical Medicine, *Keppel Street, Gower Street, W.C.1.* "The Trend of Modern Decoration." By Howard Robertson, F.R.I.B.A. 8 *p.m.*

L.C.C. GEFFRYE MUSEUM, Kingsland Road, Shoreditch, E.2. "Sheraton Furniture." By H. Cescinsky. 7 *p.m*

Friday, March 24

TOWN PLANNING INSTITUTE. Dinner to the Rt. Hon. Sir Edward Hilton Young, G.B.E., D.S.O, M.P. 7.15 for 7.45 p.m. 7.45 *p.m.*

ROYAL ACADEMY EXHIBITION. Day for submission of water-colours, pastels, miniatures, black-and-white drawings, engravings and architectural drawings. 8 a.m. to 10 p.m. 8 *a.m.*

Saturday, March 25

Sunrise 5.53 a.m. Sunset 6.21 p.m.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. Visit to the Whitgift Hospital and Parish Church, Croydon. 2.30 *p.m*

Monday, March 27

LONDON SOCIETY. Visit to the Roman Wall. 2.30 *p.m.*

varied as his activities, and he has hobbies as well as activities. Most hobbies are eccentric, but Mr. Ryder's hobby seems to me even more eccentric than usual.

*

It is acetylene welding.

*

YET ANOTHER EXHIBITION

At the moment, I am very much preoccupied with exhibitions. We have lately heard a lot of talk on exhibition planning and the design of exhibition stands, so, being invited by Mr. E. C. Davies, F.R.I.B.A., who was responsible for the lay-out of stands at the South London Exhibition at the Crystal Palace last week, I took the opportunity to discover for myself whether exhibitors really do benefit from a coordinated scheme.

*

I am convinced that they do. But what a trying job it must be for the architect who has to prove it to them, even when he has the sympathy and co-operation of the promoter!

*

Exhibitors will not take space on wide gangways where it is easy for visitors to slip past before the showman can take them by the sleeve, or near "features" calculated to distract attention from the goods displayed.

*

They do not like standard facias, lettering and colour, and, like the skyscraper advertisers, their object is to build high.

*

However, with few exceptions, the booths at the Crystal Palace conform to a single standard of design, are alike in colour and are of even height, with the result that confusion is eliminated. The visitor is immediately able to see the nature of the goods displayed.

*

I was surprised to see Cadbury's among the exceptions, for theirs is a name I have always associated with the preservation and creation of amenities and the promotion of good design.

*

FROM SLUMS TO AERIAL HOMES

I would like to know more of Mr. Joseph Emberton's solution of the slum problem. At first glance I am reminded of le Corbusier's dream, which he called *la cité verte*, and in which congestion was replaced by isolated towers of concrete and glass, standing in parks and connected by elevated roadways.

*

Le Corbusier's scheme was a strictly logical development of engineering structure, helped forward, I always felt, by the poet's enslavement to a conception of crystalline aerial beauty in his structures.

*

In practice, and even with rigid economy, the costs of lifts, terrace spaces and other quite necessary compensations for the comparative isolation of life on a tower have negatived the present-day value of le Corbusier's contribution, and I should imagine that the relative costs are not diminished by cutting down from 20 stories to 6 or 7.

*

Anything that helps to solve the problem is of value. I shall know more of this.

ASTRAGAL

You would say, would you not, that this is a block of flats, or the court of an office building, or, conceivably, a colossal school? Not so, gentle reader; it is a sacred edifice, a church. It represents a modern conjugation of the verb to worship, and has recently been erected in Hamburg.

NEWS

●

POINTS FROM THIS ISSUE

Economy on capital works is inappropriate to present-day conditions .. *385*
The relative economy of constructional steelwork and reinforced concrete *392*
A "hands and knees" staircase *398*
We have to market *as well as* make *our goods* *399*
An industrial art exhibition that is not a rich man's show *399*
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●

EXHIBITION OF BRITISH INDUSTRIAL ART

Following are the names of the members of the general and executive committees of the Exhibition of British Industrial Art in Relation to the Home, to be held at Dorland Hall, Lower Regent Street, S.W., from June 20 to July 12.

GENERAL COMMITTEE.—The Lord Aberconway, Chairman, Metropolitan Rly. Co.; H. H. Berry; Sir Basil Blackett, K.C.B., K.C.S.I., Director, Bank of England; The Lord Blanesburgh, G.B.E.; Alfred Bossom, M.P., F.R.I.B.A.; Arthur Chamberlain; Samuel Courtauld; Kathleen, Countess of Drogheda, C.B.E.; Major-General The Lord Edward Gleichen, K.C.V.O.; Sir Francis Goodenough, C.B.E., Executive Chairman, British Commercial Gas Assoc.; Bryan Guinness; Sir Martin Hall, Bt., O.B.E.; The Earl of Harewood, K.G., D.S.O., Royal Trustee, British Museum; Sir Leonard Hill, F.R.S., HON. A.R.I.B.A.; C. H. St. John Hornby, F.S.A.; Edward Hudson; R. S. Hudson, M.P., Chairman, Country Life, Ltd., etc.; H. Trevor Jones; E. McKnight Kauffer; The Viscount Lee of Fareham, G.C.B., G.C.S.I., G.B.E., F.S.A.; Rt. Hon. Viscount Leverhulme; R. Holland Martin, C.B., Director, Martin's Bank Ltd.; Lady Melchett; Lady Mount Temple; Guy Pearce; Professor C. H. Reilly, O.B.E., Roscoe Professor, Liverpool School of Architecture; The Lord Riddell; The Rt. Hon. Sir Philip Sassoon, Bt., G.B.E., C.M.G., M.P., Trustee, Nat. Gallery, etc.; Viscountess Snowden, J.P., Vice-President, Brit. Music Society, etc.; Harold Stabler; Dudley Tooth; J. T. Webster; Colonel Sir Harold Wernher, K.C.V.O., Clough Williams-Ellis, M.C., J.P., F.R.I.B.A.

EXECUTIVE COMMITTEE.—*Chairman*, Christopher Hussey, Editor, *Country Life*; *Vice-Chairman*, Frank Pick, Chairman of Underground Rly. Co.; Noel Carrington; Gordon Forsyth, Principal, Burslem Art School; V. H. Goldsmith, Assistant Controller B.B.C.; Miss Muriel Harris; H. de C. Hastings, Editor THE ARCHITECTS' JOURNAL; Oliver Hill, F.R.I.B.A.; G. R. Hughes, Major A. A. Longden, O.B.E., D.S.O., Art Advisor, Dept. Overseas Trade; Charles Marriott, HON. A.R.I.B.A., Art Critic, *The Times*; Oswald P. Milne, F.R.I.B.A.; Paul Nash; Howard Robertson, F.R.I.B.A.; Miss Dorothy Todd; *Exhibition Architect*, Oliver Hill, F.R.I.B.A.; *Treasurer*, G. A. Sawyer, C.B.E.; *Secretary*, R. Dudley Ryder.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,390/14/10. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

WATERLOO BRIDGE

The Improvements Committee of the L.C.C. have recommended the Council to appoint Messrs. Rendel, Palmer and Tritton as engineers for the reconditioning and corbelling-out of Waterloo Bridge. The committee also propose that Mr. G. Topham Forrest, the Council's architect, shall be entrusted with the work of collaborating with the engineers in preparing designs for the corbelling-out process.

SIR RAYMOND UNWIN'S BROADCAST TALK

Sir Raymond Unwin broadcast on Monday night on the proposal for a National Housing Board, making a constructive suggestion towards a solution of the present difficulties.

He pointed out that the need is great, because the number of separate families has been increasing as fast as, or faster than, the supply of separate dwellings; because, although the rates of interest and the cost of building have fallen and the Minister has consequently abolished the subsidy, unfortunately the rent-paying capacity of millions of the people has fallen still more. There are, therefore, vast numbers who cannot afford to pay a rent which would enable private enterprise unaided to provide the needed dwellings. Local authorities are asked by the Minister of Health to concentrate on the work of slum clearance under the 1930 Act.

The whole problem, however, is a complex one, and cannot be dealt with in sections. Slum clearance needs a margin of new houses, or else the difficulty and expense of it must be greatly increased. There are many local authorities who do not themselves want to undertake housing work, and there are objections to local authorities owning and managing large numbers of dwellings in which voters live.

There are further questions of reconditioning dwellings and helping tenants who from long overcrowding and living in slum dwellings have lost the knowledge of how to live in decent dwellings. All these aspects must be dealt with in combination. The suggestion is therefore made that a National Housing Board should be set up to work in co-operation with the local authorities and deal with all branches of housing and slum clearance, and reconditioning, for those tenants for whom private enterprise cannot afford to cater. The Board would raise capital on the lowest rate of interest in order that the rent may be such as the poorer sections of the people can pay; it would make no profits but meet the interest. It would work through local public utility societies, not displacing local authorities, but co-operating with them. It would also work through and seek the assistance of all branches of the building industry, and seek to bring about a great improvement in the housing of the poorly-paid members of the community.

STRUCTURAL ENGINEERS AT DINNER

Over 550 members and guests attended the annual dinner of the Institution of Structural Engineers, held at the May Fair Hotel, London, on Friday last. Major E. C. P. Monson, T.D., F.R.I.B.A., occupied the chair. The toasts (excluding that of the Royal Family, given by the President) were proposed and responded to as follows:

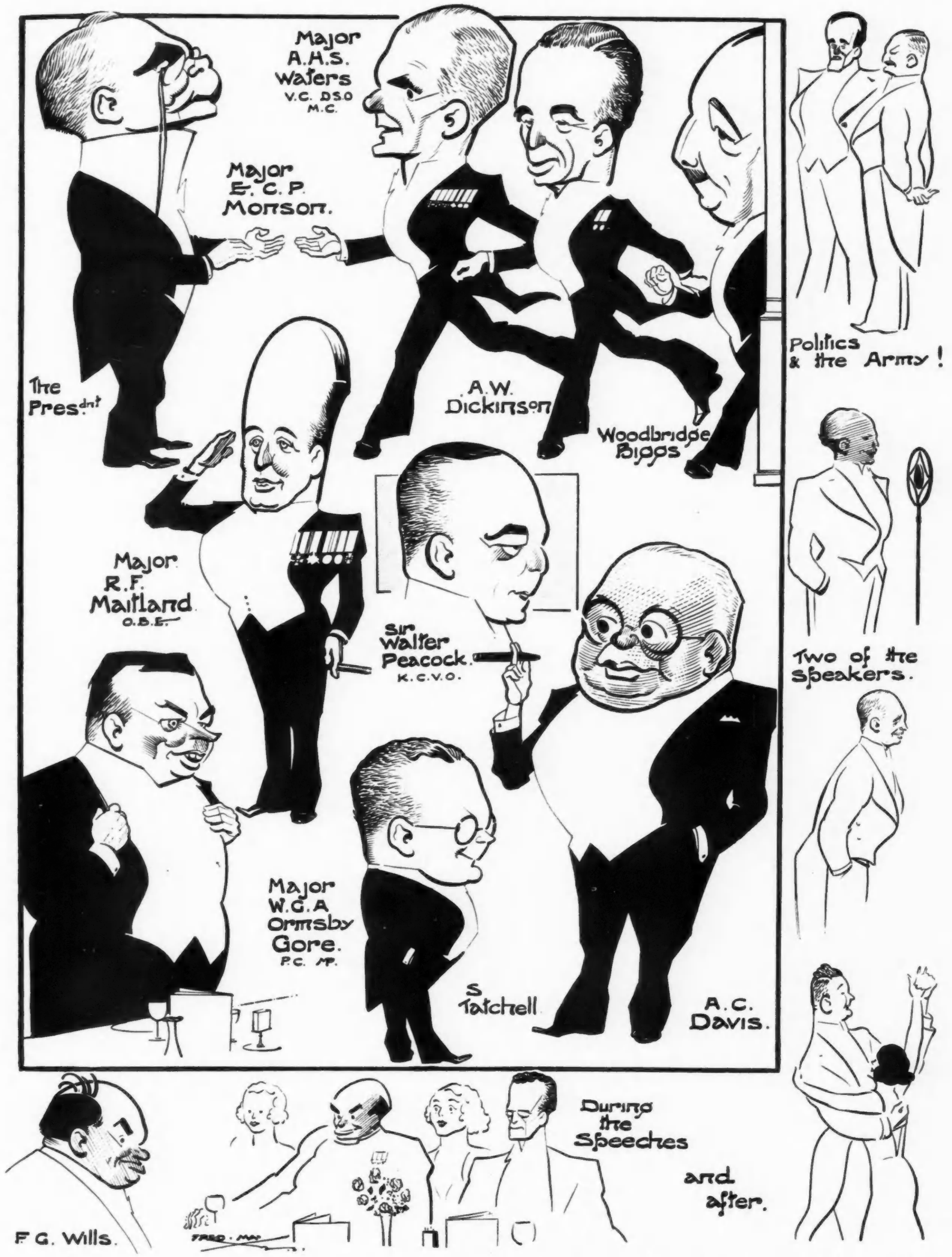
"THE INSTITUTION." Proposed by Major The Rt. Hon. W. G. A. Ormsby-Gore, P.C., M.P. (H.M. First Commissioner of Works), and responded to by Major E. C. P. Monson.

"THE GUESTS." Proposed by Mr. A. H. S. Waters, M.INST.C.E. (Vice-president), and responded to by Sir Frank Smith, K.C.B., C.B.E., D.SC. (Secretary to the Department of Scientific and Industrial Research) and Professor Sir Frederick William Keeble, C.B.E., SC.D.

Mr. Ormsby-Gore, discussing the necessity for co-operation between the architect and the structural engineer, said:

There are bound to be difficulties in drawing the line between what is the proper function of the architect and the structural engineer. Where both do their work with mutual goodwill, and comprehension of their respective proper functions, one should get the right type of modern building. Where either is unduly subordinated to the other the marriage cannot be a happy one! I wish I could feel that at some of our modern buildings there had been a better mutual understanding. In matters of taste everybody is, I believe, entitled to his own personal opinion, and there are some modern buildings where the structural engineer and the architect have attempted co-operation, and where, in my opinion, for what it is worth, the result is not altogether a happy one. If you ask me for an example, I would point to the new Lambeth Bridge. I know I shall be treading on corns, and that there will be many who will differ from my amateur opinion; but, when I look at that bridge it strikes me that whoever designed the main structure did the work extremely well, and produced a five-

THE STRUCTURAL ENGINEERS' DINNER


The Pres.dnt
Major E. C. P. Monson.
Major A. H. S. Waters V.C. D.S.O. M.C.
A.W. Dickinson
Woodbridge Biggs
Politics & the Army!
Major R.F. Maitland O.B.E.
Sir Walter Peacock. K.C.V.O.
Two of the Speakers.
Major W. G. A Ormsby Gore. P.C. M.P.
S Tatchell
A.C. Davis.
F G. Wills.
FRED · MAY
During the Speeches
and after.

On the facing page is a report of the annual dinner and dance of the Institution of Structural Engineers, which was held on Friday last. The above sketches are by Fred May.

arch steel bridge of extremely fine proportions and design. On the other hand, the architectural embellishments in granite that have been superimposed on the work of the engineers, while, no doubt, excellent in themselves as individual parts, do not appear to my eye to have improved the appearance of the bridge.

Regarding functional architecture, the young architects of my acquaintance all tell me that, in architectural style and taste, we are in a transitional period midway between a traditional and classic past and the ideal of the pure functionalism of the future. All success to the aims and aspirations of the functionalists, but I would enter a caveat—we are not constructing buildings and structures on a brand new planet, and the building or structure that aggressively disregards its neighbours, however right and good in itself, will not be really right if it is unneighbourly. At the Office of Works the efforts of my staff are directed to being up to date and modern in design without being unneighbourly.

One element in our modern make-up is going to be a great help to you, and that element is the sometimes popular, but more usually unpopular, word " economy." Your Institution is working on problems of greater economy in the cost of construction, and on getting the most efficient use of every ounce and poundsworth of material. That is right: for in a matter like this, progress and economy walk hand in hand, though I know there are people, including some architects in this country, who think that they are always mutually incompatible.

MODERN SCULPTURE

Mr. B. R. Gribbon presided over a meeting of the West Yorkshire Society of Architects held at the Leeds College of Art on March 16, when Mr. William Aumonier gave a paper on " Modern Sculpture."

He thought that the modern sculptor had risen bravely to his opportunities, and he considered that behind all modern work there was a terrific amount of thought. There could be no doubt that the modern sculptors were upholding the principles of simplicity and directness, and treated a block of stone as stone and as part of a stone building.

THE LATE C. R. MACKINTOSH

It is proposed to hold a memorial exhibition in Glasgow at an early date of the works of the late C. R. Mackintosh and of his wife, the late Margaret Macdonald Mackintosh. Any readers who own work of either of these persons, and are willing to lend it for the exhibition, or who think they can help those in charge of the matter to forward the proposed exhibition, should communicate with Messrs. Macdonald, Smith and Co., 100, West Regent Street, Glasgow, C.2.

LIVERPOOL SOCIETY

The Shakespeare Memorial Theatre was the subject of a lecture by Mr. G. A. Jellicoe, A.R.I.B.A., at a meeting of the Liverpool Architectural Society, held on Wednesday last.

From a landscape point of view, he said, some people were rather shocked by the size of the theatre when they first saw it. But when they got used to it they would appreciate its fine architectural form. Incidentally, thirty such theatres could be built for the same cost as the Paris Opera House.

R. I. B. A.

ARCHITECTURAL EDUCATION

We have received the following letter on the subject of architectural education, signed by Sir Raymond Unwin, P.R.I.B.A., and Mr. W. H. Ansell, F.R.I.B.A. (Chairman of the R.I.B.A. Board of Architectural Education):

The development of architectural education during recent years has been so rapid that it is very probable that the new facilities available are not sufficiently well known. The R.I.B.A. has done its utmost to encourage the foundation of schools of architecture in large centres of population throughout the country, and when these have become established and a sufficiently high standard attained has granted to their graduates who have taken a satisfactory three or five years' course exemption respectively from its Intermediate and Final Examinations for Associate-membership.

By this means any young man or woman can now qualify for practice at an Exempted School of Architecture, just as a medical student qualifies at a recognized Medical School The parallel is very close, because just as the medical student, during his five years' course, attends a hospital to obtain practical experience, so the R.I.B.A. requires that the architectural student for similar reasons shall go into an architect's office for periods amounting in all to twelve months.

The chief reason why schools of architecture have gown up during the last 20 years, and why both the central governing body of the architectural profession as well as its allied societies have fostered them is that the articled pupilage system, by which a young man was articled for three, five or even seven years to a single practising architect, has not been found equal to the exigencies of modern practice. In the substitution of schools of architecture for the older system of articled pupilage the architectural profession is only following the practice of other countries such as France and America, and indeed that of other professions like medicine and engineering in our own country.

The schools of architecture recognized by the R.I.B.A. for exemption from the Intermediate and/or Final Examinations are :—

Robert Gordon's Colleges (Aberdeen) ; Birmingham School of Architecture ; The Technical College, Cardiff; Edinburgh College of Art; Glasgow School of Architecture; Leeds College of Art; University of Liverpool; Architectural Association, London; University of London; University of Manchester ; Royal West of England Academy, Bristol ; University of Cambridge ; Leicester College of Arts and Crafts ; Northern Polytechnic, London ; The Polytechnic, Regent Street, London ; Armstrong College (University of Durham), Newcastle-upon-Tyne ; Nottingham School of Architecture ; University of Sheffield ; Municipal School of Arts and Crafts, Southend-on-Sea ; University College, Dublin ; University of Melbourne, Australia ; University of Sydney, Australia ; Sydney Technical College, Australia ; Manitoba University, Winnipeg, Canada ; McGill University, Montreal, Canada ; University of Toronto, Canada ; Sir J. J. School of Art, Bombay ; Auckland University College, New Zealand ; University of the Witwatersrand, Johannesburg, South Africa ; University of Cape Town, South Africa.

For some years now the R.I.B.A., by its Maintenance Scholarships scheme, has enabled promising students, whose parents or guardians have not the necessary means, to attend an approved course at one of the exempted schools of architecture.

Apart from offering professional training, an organized and successful school of architecture in a city forms a centre of architectural interest and does important work in leading public opinion to the appreciation of architecture as a subject of general culture.

WHERE LONDONERS LIVE

Is it better to live in a " conveniently equipped box " or in a badly-built house? In other words, should Londoners live in carefully-designed flats of standardized pattern, or should they continue to live in ugly, inconvenient and extremely expensive suburban houses?

This was the query raised on Wednesday last by Mr. A. S. G. Butler in his lecture on " Where Londoners Live," which formed the second of a series of public lectures on " How to Look at London," organized by the R.I.B.A. In this conflict between conservative " gentility " and practical commonsense Mr. Butler was emphatically on the side of commonsense.

He compared the average suburban homes of the typical Londoner, with all the drawbacks resulting from bad building and thoughtless planning, with the convenient and, on the whole, decent-looking blocks of modern flats and new and improved suburban houses.

FRANCO-BRITISH UNION OF ARCHITECTS

The thirteenth annual meeting of the Franco-British Union of Architects will take place at Caen (France) from Friday, June 2, to Monday, June 5.

Members who expect to be able to attend are asked to send their names to the Secretary-General (Lt.-Col. H. P. Cart de Lafontaine), 11 Suffolk Street, Pall Mall, S.W.1, as this will facilitate travel arrangements for which it is hoped to obtain special reduced rates.

STUDENTS' EVENING

On Tuesday of last week a Students' Evening was held in connection with the R.I.B.A. Exhibition of Architects' Working Drawings.

Mr. Joseph Emberton, Mr. Percy Thomas, Mr. F. Hyde (representing Messrs. Richardson and Gill), and Mr. C. Hutton and Mr. T. Haiseldon (representing Mr. C. H. Holden) attended and explained to the students the special points of interest in their respective drawings.

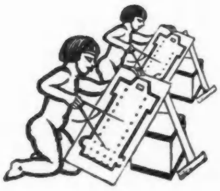
Change of Address

Mr. F. R. Gould Wills, F.R.I.B.A., architect and surveyor, has removed his offices to No. 16 Harpur Street, W.C.1. Telephone No.: Holborn 2594.

On the Air

The B.B.C. series of talks on "Other People's Houses" will be summed up by the Rt. Hon. Sir Edward Hilton Young, G.B.E., D.S.O., M.P. (Minister of Health) on Monday next, March 27, in the National Programme at 9.20 p.m.

COMPETITION



NEWS

SURBITON: NEW HOSPITAL BUILDINGS

In view of the large number of applications received, the Governors of the Surbiton Hospital have reconsidered their decision to hold a *limited* competition in connection with the new Hospital Buildings to be erected at Hill Manor, Ewell Road, and have decided to make it an *open* competition. Premiums of £125, £75, £50 and £25 are offered. Those desirous of competing must make application to the Assessor, Mr. C. Ernest Elcock, F.R.I.B.A., Adam House, 60, Strand, London, W.C., *before Saturday next, March 25.*

Competitions Open

March 24.—Façade to a newspaper office, in grey Cornish granite, for the Cornish Quarry Masters' Association. First Prize, £50. Conditions etc., were published in *A.J.* for Feb. 1.

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street, W.1, from whom full conditions are obtainable. Premium: £100.

April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

April 15.—Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in our last issue.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

BUILDING STRUCTURES

[By OSCAR FABER,
O.B.E, D.Sc., M.Inst.C.E.]

(Summarized from the Paper read before the Royal Institute of British Architects on Monday, March 20, 1933.)

ECONOMY of construction is a matter of paramount importance in these days. One reason is, of course, that with rents still largely determined by pre-war buildings, and post-war building being largely governed by costs of labour and materials of the order of twice pre-war, building developments are necessarily greatly restricted from financial considerations unless greater economy of construction can be achieved by special effort.

There are two main directions in which this economy can be obtained. One is by using ordinary construction with greater knowledge, which enables us to say where material can be reduced without reducing the general factor of safety, leaving untouched the places which were really the limiting considerations. The second is by investigating new methods of construction altogether, involving a development in the technique of building.

Under the ægis of the Steel Research Committee set up by the Department of Scientific and Industrial Research, tests have been carried out at the New Geological Museum at South Kensington under the supervision of the author of this paper.

These tests have been directed to checking the actual stresses in a full-scale steel frame for a building of four stories.

It should, perhaps, be mentioned here that in the design of steel frames of this character, it has been usual in the past to calculate the bending stresses in the stanchions on the basis of assuming the reactions of the beams to occur on the centres of the stanchion brackets. The eccentricity of this point from the centre line of the stanchion multiplied by the beam reaction in tons determines the bending moment in the stanchion.

This assumption would be correct if this were the only means of attachment between the beam and the stanchion, but obviously a building constructed in this way would have no resistance to lateral forces such as wind and earth tremors, and would be entirely unstable. To give it this necessary stability against lateral forces the joints are given stiffness by adding top cleats between the beams and stanchions as well as bottom cleats, and it has been clear to those who have given thought to the matter that this modification must inevitably modify the correctness of the assumption as to the position of the reaction previously referred to, increasing its eccentricity and the bending moment in the stanchion with it.

The question has been, whether this increase was material or not. The so-called practical man has been disposed to argue that the increase was theoretical and not reflected in the actual conditions on the site. Those, however, who have studied the matter most closely have held that the increase was important.

It was the object of the tests at the Geological Museum to ascertain, among other things, what the order of this increase was.

It should be remarked that the connections in this case were of the minimum degree of stiffness usual in practice. The top cleats were connected to the beams, which consisted of two 24-inch by $7\frac{1}{2}$-inch joists side by side, by only two $\frac{7}{8}$-inch bolts. In actual practice, as you are aware, connections of much greater stiffness are often employed, and there, of course, the effect would be even greater in proportion.

To cut a long story short, the general conclusion of this particular investigation has been to show that even with the comparatively light connection referred to, the bending stresses in the stanchions were practically doubled as compared with those calculated on the ordinary basis, and that an approximately correct estimation of the moment is obtained by adding to the moment ordinarily calculated one obtained by considering the top bolts to be stressed to eight tons per square inch in shear and multiplying the force so arrived at by the depth of the beam.

It would, of course, not be justifiable to assume that this would be correct under all conditions, and further tests are in progress by the Department.

I am obliged to the Department and to the Chairman of the Steel Research Committee for permission to refer to this matter at this stage, and a fuller account will be found in the Second Report of the Steel Research Committee which is shortly due for publication.

The next matter to which I propose to refer relates to the distribution of pressure under bases and foundations and the stability thereof arising from this consideration.

In the design of foundations it has been usual, and is still usual today, to assume that a concentrically loaded foundation exerts a uniform pressure over the area of the base, and that the stability may be determined by ascertaining whether the pressure so arrived at is one which gives conditions of stability in the soil at this particular depth.

In 1929 the author, with the assistance of Mr. K. Montgomery-Smith, B.SC., A.M.INST.C.E., and the collaboration of Mr. R. H. H. Stanger, PP.I.STRUCT.E., made a series of researches which may be of interest in this connection, as they give results very different from those normally assumed.

In practice the experiment was conducted by applying a certain load which could be measured on to the specimens. Extensometer readings were then taken, and the load calculated and reduced to tons per square foot.

The sand used in all these tests was dry Leighton Buzzard sand, as used for cement testing.

Fig. 1 shows the actual distribution obtained in one of the sand tests with no surcharge, i.e., with the foundation on the top surface, where the outer sand was free to escape without restraint in an upward direction.

It will be seen that the bottom curve corresponds to an average pressure on the base of 3·53 tons per square foot, but that the pressures at the edge of the base never exceed 1 ton to the square foot, while the maximum pressure at the centre reaches a figure as high as 9·4 tons to the square foot.

Fig. 2 shows a test with the surrounding material surcharged to 1·46 tons to the square foot, i.e., corresponding approximately to a foundation on sand at a depth of about 30 ft. below the ground.

In this case it will be seen that there is much less difference in pressure between that at the edge and that at the centre.

Without giving all the experiments in detail it may, perhaps, suffice to give the results of the sand experiments in general by stating that distribution of pressure where the foundation is near the free surface is approximately parabolic, and, where the foundation is at a considerable depth below the surface, the distribution is intermediate between parabolic and uniform.

Coming now to the clay tests, it should, perhaps, be explained that clay is a very difficult material to experiment on for a variety of reasons.

First, because it is by no means absolutely uniform in hardness, and secondly, because in a warm, dry laboratory it loses its moisture rapidly and changes its properties accordingly. The latter was prevented by covering the free surface of the clay with a very thin sheet of india-rubber, sufficient to prevent evaporation, but not sufficient to influence the results by altering the distribution.

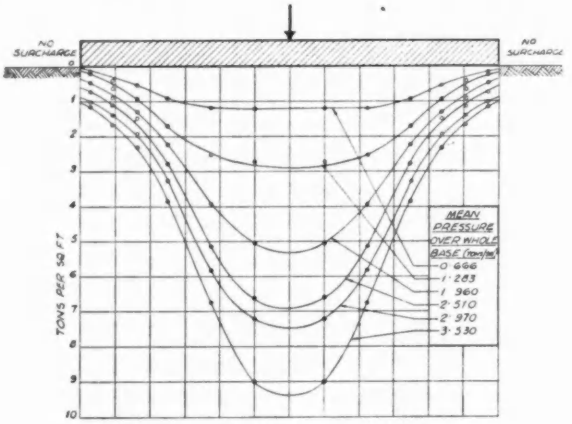


Figure 1. Sand test: no surcharge.

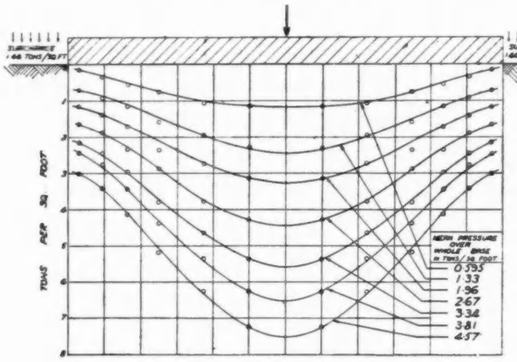


Figure 2. Sand test: surcharge 1·46 tons/sq. ft.

The effect of the surcharge appears to be less important with clay, as compared with its effect on sand.

In general it may be said, as the results of the clay experiments, that the distribution generally appears to approximate to one giving a maximum at the edge and a minimum at the centre, the mean pressure being two-thirds of the edge pressure and the distribution between the two being a curve which appears to approximate to an ellipse.

It is now, perhaps, of interest to consider some of the results which appear to follow from these facts.

In the first place, it becomes clear that from the point of view of the stability of the soil, a foundation on sand is going to permit a far higher average pressure than that based on considerations of stability of the sand at the edge of the base.

Foundations on clay, however, appear, on the contrary, to have a total stability less than the stability calculated from consideration of the safe pressure at the edge, and it would appear to be necessary in obtaining the total pressure on a base to multiply the safe pressure at the edge by a factor which may be of the order of two-thirds, in addition, of course, to any factor of safety which it may be prudent to require.

Added to this there is, however, another consideration when we come to the strength of a base itself.

Most bases are designed as cantilevers from the centre, and it will be seen that with the sand foundation the centre of gravity of the load comes nearer to the centre line than it did with uniform distribution, and the total bending moment is much reduced in consequence. The converse is true in the case of clay.

While on the subject of foundations, the author would like to offer a word of warning in connection with *piled foundations*, which often contain traps which are not always obvious.

There seems to be a popular belief that provided a pile gives the set required in accordance with a pile-driving formula corresponding to a particular carrying capacity, or if an individual pile will safely carry a certain test load, a group of similar piles may be assumed to carry the total load with safety *pro rata* to the number of piles. There are many cases where this is entirely untrue.

It sometimes happens that a group of many piles may only carry a small proportion of the load per pile which any individual pile tested singly would appear to justify, whether this test takes the form of a pile-driving formula or whether it is obtained by an actual loading test on the pile.

As a result of experience of many cases the author would submit the following propositions:

(1) The mere fact of a pile driving to a satisfactory set is no indication that a group of similar piles will safely carry any particular load, the accuracy of a pile-driving formula employed notwithstanding.

(2) The fact of a single test pile being loaded to a given load without subsidence is not in itself a guarantee that a group of many piles will carry this load per pile.

(3) Examination of the soil by bore holes will not alone give the information required any more than an examination of the soil with test piles, but the two taken in conjunction with each other often give valuable information.

Test piles should, as far as possible, be driven to a greater depth than it is proposed to drive the permanent piles.

(4) All the circumstances of the strata need to be taken into account in deciding what is a safe load per pile, and no pile-driving formula is in itself sufficient.

On the subject of economy in building a word should, I think, be said on the relative economy of constructional steelwork and reinforced concrete.

No one would suggest that there are not many cases where a steel-frame building is the correct solution to a structural problem. Nevertheless, there is, I think, no doubt that the advantages of reinforced concrete have been too long neglected in this country in cases where economy is an important consideration.

The author recently made a visit to several Continental countries and took the opportunity of studying building in these countries, and perhaps the most outstanding feature which struck him was the way in which reinforced concrete frames are used, almost to the exclusion of constructional steelwork, on the Continent generally, for buildings of many stories.

This has not been so in this country to the same extent, and the author believes the reasons are partly that the economies of this form of construction have in the past not been so necessary or so fully appreciated, and secondly, that reinforced concrete construction in this country has not been so organized as to give sufficiently rapid construction.

Dealing with the question of economy, the author recently prepared comparative designs for a steel and concrete column, each to carry 1,000 tons on a 14 feet story height, with concentric loading, the column being based in both cases on L.C.C. regulations.

The steel stanchion cased came out to £5·79 per foot run, and the reinforced concrete column to £3.39 per foot run, showing that the steel column cased is 1.71 times the cost of the concrete column.

The rates which were used in the calculations were submitted to a competent quantity surveyor, who approved them as being properly comparable.

Approximately the same relation as regards costs exists in regard to beams, as the quantity of concrete and shuttering is approximately common to both, but the amount of steel in the reinforced concrete beam is approximately one-third that required for a steel joist, partly because, owing to continuity, it has to be designed for a smaller moment, and partly because the concrete takes the compression and shearing stresses, and steel has only to be provided for the tension stresses, the rods being bent up towards the end to look after the shear in conjunction with the concrete of the beam.

The author has taken out the costs of the constructional work in a good many large buildings and compared the cost of a steel-frame building cased with that of a reinforced concrete frame building, and in all cases of buildings carrying several stories it is found that the cost in concrete is considerably less than that in steel, cased to meet the requirements of building authorities.

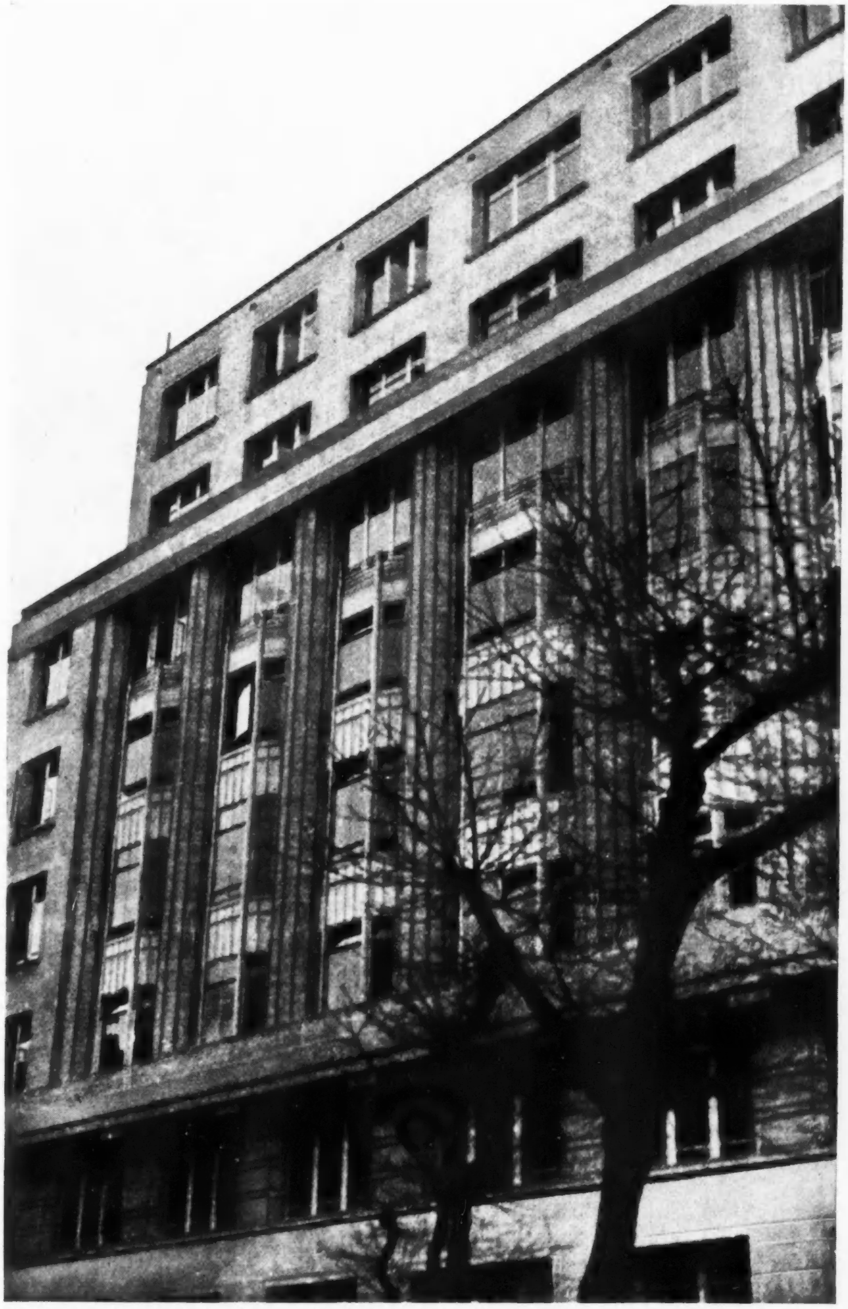
Apart from the use of concrete for the framework of buildings, it is also used in a more interesting manner in structures like the Horticultural Hall, and, more recently, in the new market buildings at Nairobi (Messrs. C. Rand Overy, F.R.I.B.A., and S. L. Blackburne, A.R.I.B.A., architects).*

In this building matters of particular interest included the provision against expansion and contraction due to tropical conditions which had to be specially guarded against.

The author is of the opinion that if architects and engineers were to combine in the development of this kind of construction, such economies might be achieved in building as would open up a new field justifiable financially in spite of the difficult conditions which present themselves today.

* [*See frontispiece to this issue.*—ED. *A.J.*]

ST. HELEN'S COURT, E.C.



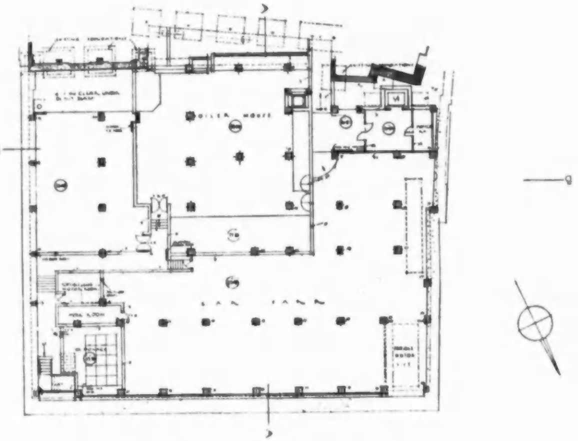
DESIGNED BY MESSRS. JOSEPH

The building illustrated on this and the two following pages, and also in a supplement to this issue, is an extension to the headquarters of the Anglo-Saxon and Asiatic Petroleum Companies. Reference to the plans will show how the problem of connecting up to the existing building, St. Helen's Court, E.C., has been overcome; a number of light and air agreements added to the difficulties of design.

The building is steel-framed, and, while the elevation to Great St. Helen's, illustrated above, and by the drawing on page 395, is of faience tile slab and block construction, that to Crosby Square is of Portland stone. Heating is by low-pressure hot water radiators, the water being heated by oil-fired boilers situated in the sub-basement. The offices are ventilated by warmed and cleaned fresh air, which is pumped into the building by fans situated at roof level.

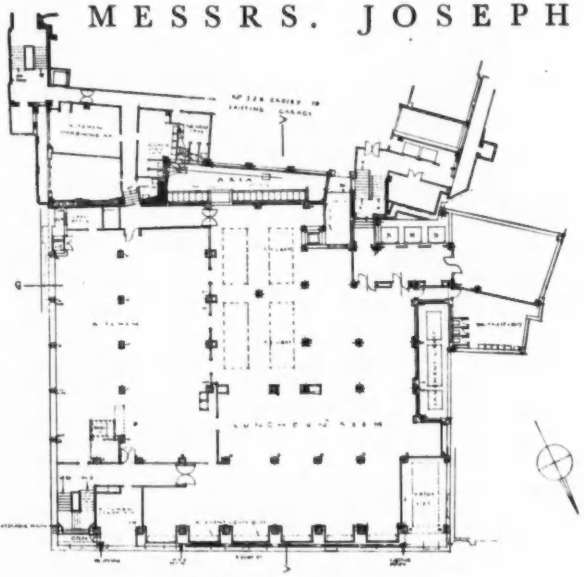
The accommodation includes a garage in the sub-basement, served by a lift from Great St. Helen's. A staff restaurant, with necessary kitchens, etc., occupies the basement, and the remainder of the building, consisting of lower ground and seven floors over, is given up to offices partitioned as required by each department.

ST. HELEN'S COURT: BY MESSRS. JOSEPH

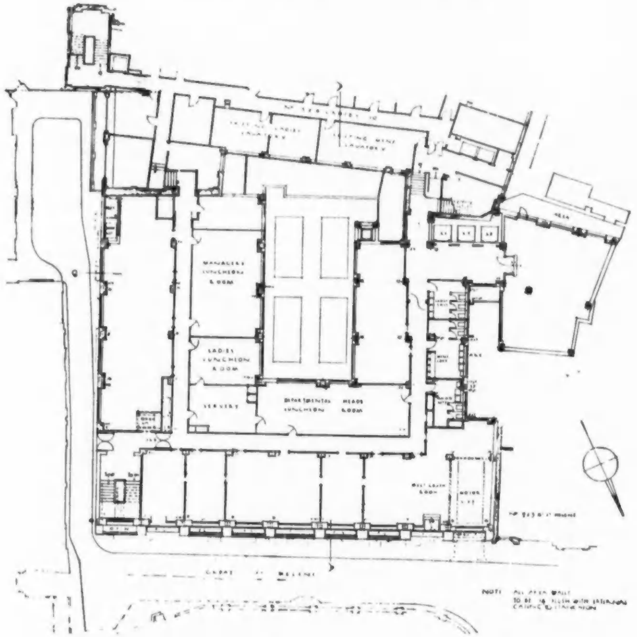

BOILER HOUSE

Plan of sub-basement.

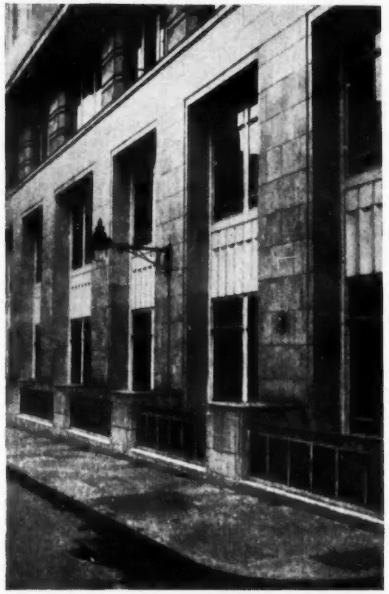
Upper corner of Crosby Square front.


KITCHEN
AREA
LUNCHEON ROOM

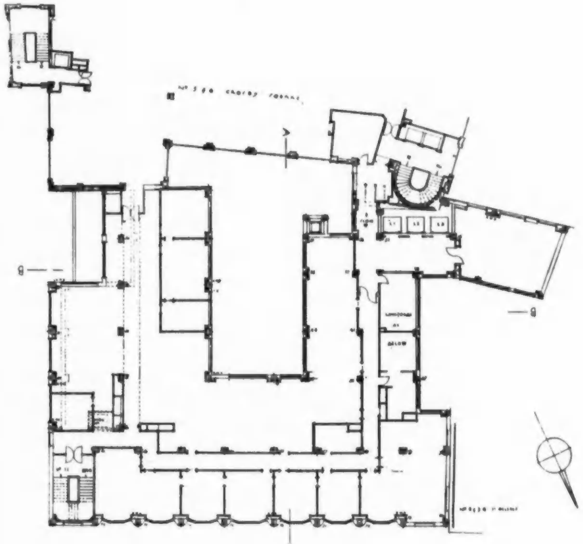
Plan of basement.


MANAGERS LUNCHEON ROOM
LADIES LUNCHEON ROOM
SERVERY
DEPARTMENTAL HEADS LUNCHEON ROOM

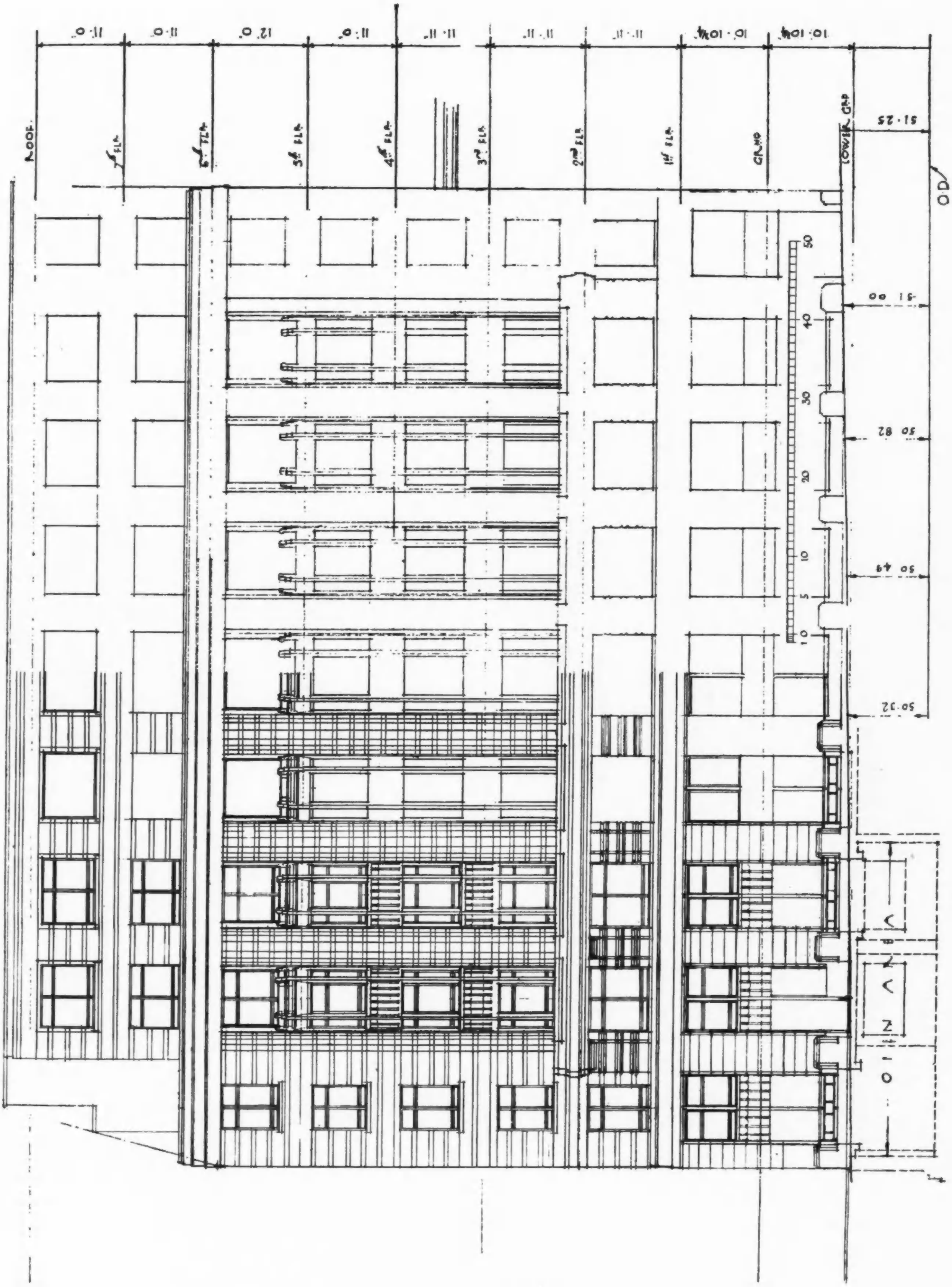
Plan of lower ground floor.



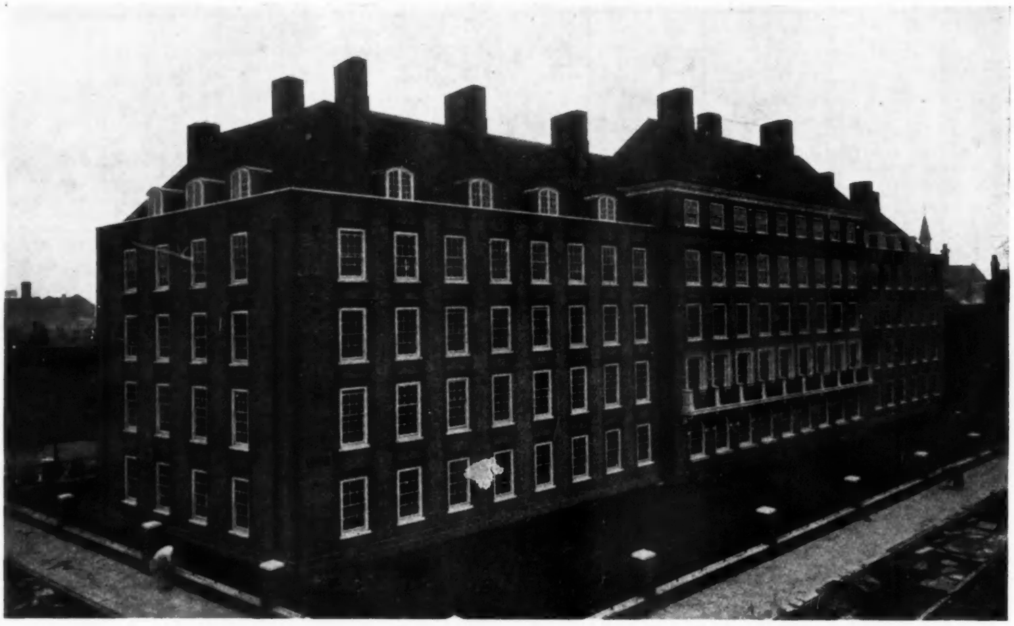
Lower stories of Gt. St. Helen's front.



Plan of typical floor (third).


11'0"
11'0"
12'0"
11'0"
11'11"
11'11"
11'11"
10'10½"
10'10½"
ROOF
7th FLR
6th FLR
5th FLR
4th FLR
3rd FLR
2nd FLR
1st FLR
GRND
LOWER GRD
51·25
51·00
50·82
50·49
50·32
OD
0 5 10 20 30 40 50

L.C.C. HOUSING : PILGRIM



Pilgrim House, Law Street, Southwark, represents the first section of the Tabard Garden Estate to be taken in hand, and is designed to afford a total of 60 dwellings containing 174 rooms. As seen from the above illustration of the first contract, the block is of five stories, built in brick and roofed with tiles. It is of the Council's normal type of rehousing accommodation except that 20 of the dwellings in the second contract, indicated on the plan on the facing page, were completed with a reduced standard of finish with a view to their being let at specially low rents. The scheme, which is by G. Topham Forrest, architect to the L.C.C., also included some workshops, perambulator sheds, costermongers' barrow sheds, and open sheds for lorries.

LETTERS *FROM* READERS

R. COPPOCK
(Secretary, National Federation of Building Trades Operatives)

L. J. REDGRAVE CRIPPS

[*The week's post has brought us many interesting letters; at the same time, part of our limited space was already earmarked for Mr. L. J. Redgrave Cripps. In view of the immediate importance of Mr. Coppock's letter we are reluctantly compelled to hold over several others.*—ED., "*A.J.*"]

The Housing Bill

SIR,—The Housing Bill which has just passed through the House of Commons is causing grave discontent and dissatisfaction. The Bill has completely reversed the policy of this country in respect of housing.

The 1919 Addison Act wrote into the constitution of local authorities the principle that they would be responsible for working class housing. Local authorities were made legally and morally responsible for the housing of the working classes. The present Bill, however, has taken that responsibility, which was a statutory right of every citizen, out of the constitution of Great Britain.

The descent of the economy axe will undoubtedly mean greater and greater unemployment in the building and subsidiary industries. I do not know of more than three large building societies in this country prepared to make financial grants to speculative builders under the Bill which is about to become an Act of Parliament. It will not be possible for houses to be built for the working classes under this Bill.

As to the crying need for such houses take Leeds as an example. In Leeds 34,800 houses which were built before 1844 are still inhabited by working people. These houses are in long unbroken rows and narrow streets. The houses consist of two rooms with a cellar, usually unlighted, and have practically no provision for the storage of food. Personal and domestic washing has to be done in the living room. There are no inside w.c.'s. There is no storage for household refuse. Outdoor ashpits and w.c.'s are used for groups of houses. The houses themselves are crowded together, seventy to eighty to an acre.

Conditions similar to those in Leeds are to be found in Liverpool, Birmingham, Glasgow, Manchester, and, indeed, in most large towns in his country. There is no attempt, as a consequence of the negatory legislation just passed through the House of Commons, to abolish these insanitary, infested slums.

R. COPPOCK

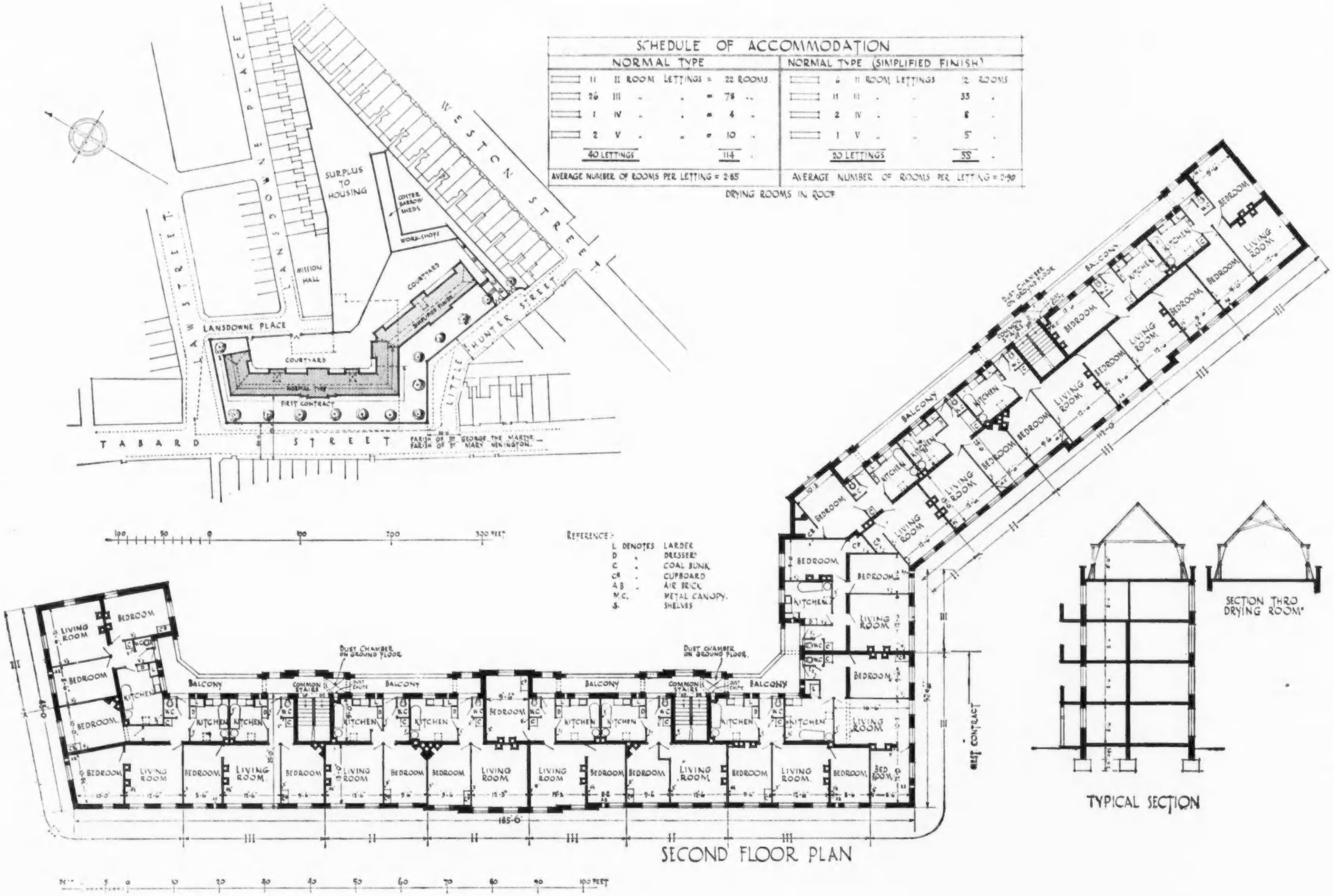
A Woman's Ideal Home

[*Below, Mr. L. J. Redgrave Cripps follows up his criticisms of last week under this heading*—ED., *A.J.*]

SIR,—My "ideal" plan is for a house of similar size and cost to that of Miss Elizabeth Craig, but except for size and cost there is certainly no similarity whatsoever between the two plans.

First, with regard to accommodation. By careful planning it has been possible to provide, within practically the same total area, a well-arranged scullery in addition to the kitchen; and a dressing room in addition

HOUSE : BY G. TOPHAM FORREST


WESTON STREET
LANSDOWNE PLACE
LAW STREET
TABARD STREET
HUNTER STREET
LITTLE
SURPLUS TO HOUSING
MISSION HALL
WORK-SHOPS
COSTER BARROW SHEDS
COURTYARD
NORMAL TYPE
FIRST CONTRACT
SIMPLIFIED FINISH
PARISH OF ST GEORGE THE MARTYR
PARISH OF ST MARY NEWINGTON
100 50 0 100 200 300 FEET
BALCONY
COMMON STAIRS
DUST CHUTE
DUST CHAMBER ON GROUND FLOOR
BEDROOM
LIVING ROOM
KITCHEN
W.C.
FIRST CONTRACT
185-0"
45-0"
SECOND FLOOR PLAN
100 FEET
TYPICAL SECTION
SECTION THRO DRYING ROOM

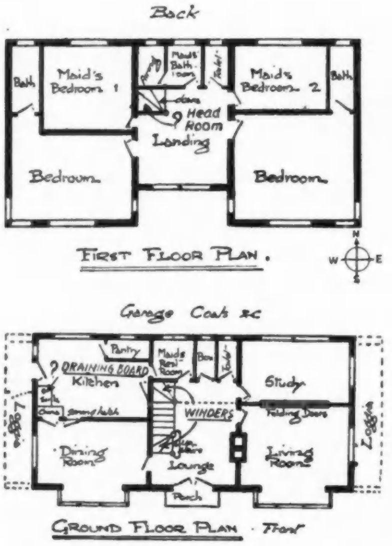
SCHEDULE OF ACCOMMODATION							
NORMAL TYPE				NORMAL TYPE (SIMPLIFIED FINISH)			
11	II ROOM LETTINGS =	22 ROOMS.		6	II ROOM LETTINGS	12 ROOMS	
26	III " " =	78 "		11	III " "	33 "	
1	IV " " =	4 "		2	IV " "	8 "	
2	V " " =	10 "		1	V " "	5 "	
40 LETTINGS		114 "		20 LETTINGS		55 "	
AVERAGE NUMBER OF ROOMS PER LETTING = 2·85				AVERAGE NUMBER OF ROOMS PER LETTING = 2·90			

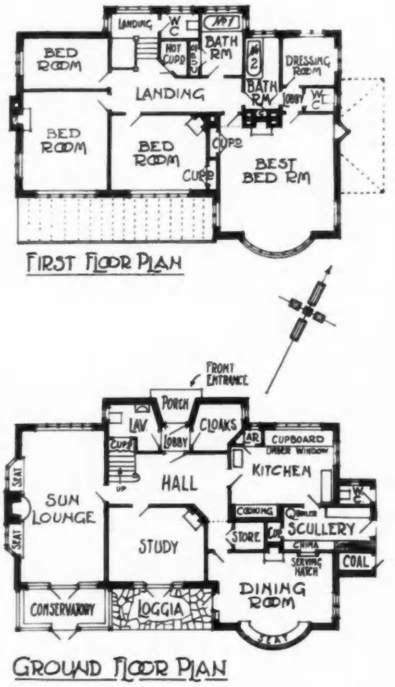
DRYING ROOMS IN ROOF

REFERENCE:-

L	DENOTES	LARDER
D	"	DRESSER
C	"	COAL BUNK
C^D	"	CUPBOARD
A B	"	AIR BRICK
M.C.		METAL CANOPY.
S.		SHELVES

C





(Above): Miss Elizabeth Craig's plans for an "ideal" home, recently published in "The Sunday Express"; and (right): plans of a house designed by Mr. L. J. Redgrave Cripps on parallel but workable lines. Both sets of plans are described by the author in the accompanying letter; he has also inserted certain queries on the reproduction of Miss Craig's plans.

to the four bedrooms. Also a number of built-in and concealed cupboards, and excellent cloak room and lavatory accommodation have been provided. Thus it will be seen that the accommodation in my ideal house is superior to that in Miss Craig's.

Then with regard to the two important considerations of correct aspect and the general convenience in the planning of the various rooms, both these considerations have been completely ignored by Miss Craig. Yet in any house that claims to be ideal, each and every room should be planned so that it has its correct aspect. Thus the kitchen and meals room should *not* be planned on the west side of the house as in Miss Craig's plan. They should be on the east side so as to get the morning sun. In my plan I have also contrived the principal rooms so that they not only have a southern aspect but also supplementary windows facing east and west, i.e., windows on *three* sides, so as to get the maximum sun.

Now let us turn to the general "labour-saving" convenience of my plan. First note the arrangement of the cloaks and the quite separate lavatory in relation to the front entrance and the hall, and note how these conveniences are secluded by means of the lobby and the two doors from the hall, thereby combining ready access with complete privacy. Compare this arrangement with that of Miss Craig's plan, where she has planned the small w.c. to open direct into the lounge!

Of course, the skill in house planning (as in cooking, at which Miss Craig is an expert) lies in *attention to details*, in getting the *small* points worked out successfully. It is all very well for Miss Craig to say "*I do not know where to place the central heating equipment, the coal store and log house*," and then jauntily to dismiss the difficulty with the remark that these must be put "*somewhere on the back of the house*." In point of fact there is *nowhere* on the back of Elizabeth Craig's house for tacking on *anything* without blocking out one or more of her numerous north windows, of which there are no fewer than thirteen shown. In any case, the "somewhere on the back" would mean that Miss Craig's poor unfortunate maid would have to go out in the wind and rain, right round from the kitchen on the west to the "somewhere on the north," whenever she had occasion to get in any coal or attend to the boiler. All these small difficulties must be faced up to and properly thought out and solved *beforehand*—so that such items as the small central heating boiler, the coal store, the outside w.c., etc., may all be grouped together in the most convenient and economic position—if possible all under the main roof as an integral part of the house. This has been done in my plan.

Of course, anybody can get the *main* points of a house more or less right if he (or rather she) neglects the small but none the less essential points. Unfortunately, Miss Craig not only fails with the *small* points in her planning but she fails even more lamentably with the *main* points. Thus, although with characteristic confidence she describes her staircase as being a "*gracious affair*," yet, in point of fact, it fails in every essential requirement of a good staircase. It is steep; it is in one flight instead of two; it has dangerous winders (at top *and* bottom); and, not content with all this, it is so planned that it would be quite impossible for either Miss Craig herself or anyone else to get up or down it unless she crawled on her hands and knees—and even then she would be lucky if she escaped bumping her head! Yet this is the "gracious" staircase of the ideal "dream" home of Miss Elizabeth Craig! On the other hand, although the staircase in my plan does not make any great pretensions, it is at least of reasonable pitch; it is planned in two easy flights with a convenient half-space landing; it has no winders; and there is ample headroom.

Then with regard to the planning of the kitchen quarters. In a house of this size it is useless trying to compress all the essential domestic conveniences and equipment into one small apartment, the kitchen. Miss Craig attempts this impossible feat, with the result that in her kitchen there is no space for even a draining board to the sink! Yet what earthly use is a kitchen sink *without* a draining board? I tremble to think what any client of mine would say if I tried to palm off on her an "ideal" house so ill-planned that it was impossible (for lack of space) to fix a draining board to the kitchen sink. Miss Craig not only makes no provision for a draining-board but she likewise leaves practically no space for any adequate kitchen cupboards; nor does she indicate by what means any cooking is to be done in her "ideal" kitchen—she has apparently forgotten such an unimportant detail as the cooking stove and the necessary flue. On the other hand, in my ideal house I have most carefully studied the planning of the kitchen quarters so that there shall be a definite and convenient place for all the necessary equipment—and the provision of a small scullery not only keeps all the dirtier work away from the kitchen but it acts as a cut-off lobby between the kitchen and the tradesmen's entrance, and also between the kitchen and the service hatch to the dining room. Furthermore, my plan provides not only for ample cupboard accommodation in the kitchen and scullery, but also for a really good sized and most useful private store adjacent to the dining room.

Another feature in the planning of my house is that of having the best bedroom planned *en suite* with its own private bathroom, w.c. and dressing room—all quite self-contained and independent from the rest of the house and from the other bathroom and lavatory accommodation.

I think I have now demonstrated that we men architects are really not such incompetent fools at our work as our feminist friends would make out. If Miss Craig's attempt at house planning has done nothing else it has at least demonstrated the truth of the old saying that "a little knowledge is dangerous." It is certainly most highly dangerous where the planning of "ideal homes" is concerned, and if anybody is foolish enough to attempt to take Miss Craig's plans as a model, she (it is not likely to be a *he*) will only have herself to blame. My house has actually been built.

L. J. REDGRAVE CRIPPS

A NEW EXHIBITION

BRITISH ART
for
BRITISH INDUSTRY

SIR Francis Goodenough, C.B.E. speaking at a luncheon held by the organizers of the forthcoming Exhibition of British Industrial Art in Relation to the House, at Gatti's Restaurant, London, on Thursday last, said:

We are proud of our great achievements in applied design in the past, but in recent years a revolution has taken place. New needs, new materials, new standards of beauty and fitness have derived not, as hitherto, from the skilled craftsman, but from the perfected machine.

Other countries have been quicker to recognize the opportunity afforded to their manufacturers and designers. England has been less active in the production of modern designs—or, at least, in making them widely known—and, consequently, is in danger of being regarded by overseas customers as, in this respect, a back number; the home of Shakespeare and all that, of course, but not the home of progress. There is some justification for this accusation, if we compare much of our domestic design to, say, that of our cars, aeroplanes or sports gadgets. They are famous the world over. We have got to make our furniture, our fabrics, our pottery as famous, by making more of them as well-designed in their own sphere and then by bringing them effectively to the public notice. We have to *market* as well as *make*.

The position got so serious that the Board of Trade set up a Committee, under Lord Gorell's Chairmanship, to see what should be done to remedy this apparent inertia. The report was issued a year ago; the Committee emphasized that:

> This is the psychological moment, while world trade is depressed, for making a special effort to improve Industrial Art, for, in a period of slack trade, time can most profitably be spent in careful planning and preparation for the future.
>
> For the sake of national self respect, as well as profit, the aim must be to use to the full the great artistic genius of the nation and to beautify our products until they *surpass* those of every other nation. *The national aim cannot be too high.*

That was well said.

It is not uninteresting to point out—and it is natural that I should point out—that another Government Committee, that on Education for Salesmanship, devoted a chapter in their final report to the subject of Commerce and Education in Art—a chapter I would like all interested in the improvement of design in industry to read. The attitude of the Committee to the subject can be indicated by one quotation:

> The principles of art are eternal, and the making of things which are useful and at the same time pleasing in form and colour can only be assured by the adoption of such principles, and the carrying on of the traditions of the centuries, while adapting them to the practical requirements of our time. The real progress of a people cannot be better expressed than by the production of good things, practically and artistically. It is by such means that happiness and contentment to the craftsman can be assured and the moral and intellectual progress of a people, which is progress in its best sense, can be maintained.

The policy recommended by the Gorell Committee to achieve their and my Committee's aim was the organization by the Government of a series of Industrial Art Exhibitions; and ultimately the establishment of a permanent exhibition.

Unfortunately, the economy campaign opened as soon as the report was published, and State action tarries.

It was now that the promoters of the present exhibition came forward to help the Board of Trade out of a rather equivocal situation—if Sir Edward Crowe will forgive my saying so. The promoters felt truly enough that the need was urgent, and that they must act quickly. The project had already taken shape. Public-spirited guarantors had given it their backing—among them Mr. Samuel Courtauld, Sir Philip Sassoon, Mr. Israel M. Sieff, Sir John Latta, and some of the great City companies.

So the plan was put before the Government, and they backed it too. H.R.H. Prince George has been so good as to consent to be Patron, and is to open the exhibition; Mr. Runciman and Lord Irwin are Vice-Presidents, and Lord Gorell—who should be speaking to you now only he is furthering the good work in America—has linked the exhibition to Government policy by becoming President of the Committee.

It can be said at once that, so far as manufacturers are concerned, the demand for an exhibition of this type was proved immediately it became known. The demand for space was instantaneous, and I feel confident that, when the exhibition opens next June in Dorland Hall, Regent Street, you will be amazed—and proud—of what British manufacturers and designers are doing. And you will not have seen an exhibition of this kind before in England.

It is not aiming at size. But everything in it will have been selected because it is the best of its kind, and the aim is to show the fine products of industry in the settings in which we use them. Some of the most brilliant of the younger generation of designers—for it is essentially an exhibition of youth—will have devised typical rooms in which the things of today—furniture, pottery, glass, lights, textiles, books, kitchen equipment, heating appliances, clocks, silverware, and so on—will be included. In addition, galleries will be devoted to each industry, but all arranged in an original and striking way.

We hear a lot nowadays about planning agriculture, towns, even finance; this exhibition is a great step in the direction of planning our homes. It is not a rich man's show; but it will show how all of us can be rich in beauty wedded to utility in our homes. It will set a new standard of values.

ADELPHI ESTATES BILL

[*By our Special Parliamentary Representative*]

BY 64 votes to 27 the House of Lords last week gave a second reading to the Adelphi Estates Bill. This does not mean, however, that the measure will eventually become law. It only ensures its thorough examination by an impartial Committee. Even should the Committee approve the Bill it will have to come back to the House of Lords for third reading before passing through the House of Commons.

In moving the second reading, Lord Newton said that the objects of the Bill were to remove restrictions on the height of buildings, to widen the street, and to construct two new roads at separate levels. It was proposed that one of these roads should pass along Adelphi Terrace. It was on the last point that the real opposition to the Bill arose. The promoters of the Bill had handed over 800 square feet of their property to the public, and the proprietor of the Adelphi Estate asked to be allowed to do what his neighbours had been allowed to do, but he was told that in no circumstances could that be permitted because his property contained buildings of artistic value. Surely he had a right to put his case before an independent tribunal in the shape of a Parliamentary Committee.

He (Lord Newton) had recently constantly visited Adelphi Terrace and on not one occasion had he seen anyone there in search of amenity. When one got to the Terrace it was quite impossible to see the river. All that could be seen was a flat muddy space covered with rubbish and dotted about with ignoble buildings.

He had no fault to find with the interior of the Terrace buildings. There was no reason, however, why the chimney-pieces and even the ceilings should not be preserved and utilized in some other buildings.

He would remind the opponents of the Bill that it was purely an enabling measure. He had no particular enthusiasm for the Bill but he felt that the promoters had a right to state their case.

Lord Esher moved the rejection of the Bill. He said that under the Bill the central block would be pulled down. Adam Street, John Street and Robert Street, instead of being the charming streets they were now, would have low eighteenth-century buildings on one side and high modern buildings on the other; the elevation of these three streets would be entirely ruined. When the block behind was pulled down the promoters of this Bill proposed to build in its place a still larger block, which would come out right over the present Terrace and over the foreground in front; the present Terrace would be a tunnel underneath. They had not been told what kind of building it was proposed to erect, and if this Bill was passed the House would be voting for a pig in a poke. The whole lay-out of the Adelphi was a delightful and charming piece of eighteenth-century town planning. The Town and Country Planning Act came into force in April, and this seemed to be just one of those areas to which the Act should apply. If the restriction on the frontage were removed the effect would be to advance the building line. The Government were not allowed to advance the building line when they proposed to erect new buildings in Whitehall; why should a private citizen be allowed to do so?

The Archbishop of Canterbury said that the block of buildings involved was the crowning achievement of the famous brothers Adam—the last of the beautiful eighteenth-century buildings in London. Let them destroy it not, for there was a blessing in it.

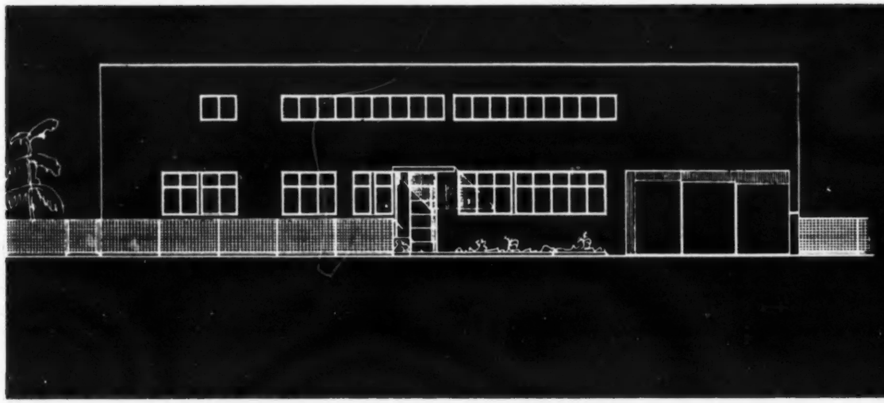
Lord Jessel said that the only way to preserve the Adelphi buildings was to secure their purchase by some of the learned societies interested in the matter.

Lord Olivier said he had always been impressed with this little oasis in London as a tremendous relief from the vulgarisation that was going on.

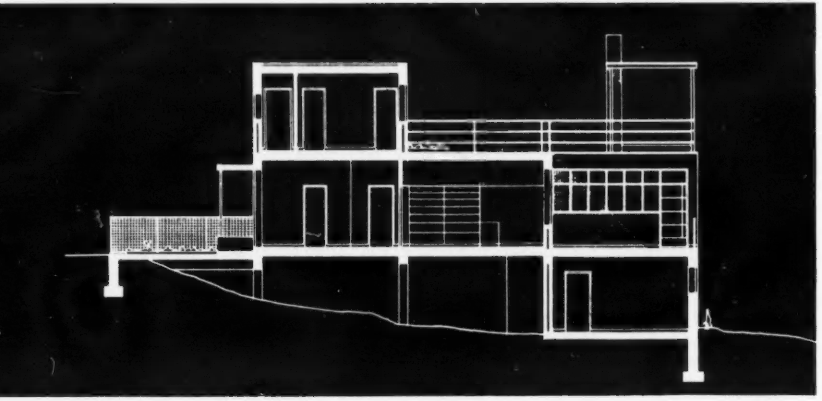
Lord Dickinson, who also opposed the Bill, said that the whole line of buidings to Charing Cross would be affected if permission were given to bring forward the building line of the Adelphi. The scheme for a new Charing Cross bridge might also be seriously affected.

Lord Halsbury, however, thought that the Bill should go to a Committee in order that the whole question might be examined, and this advice was ultimately followed.

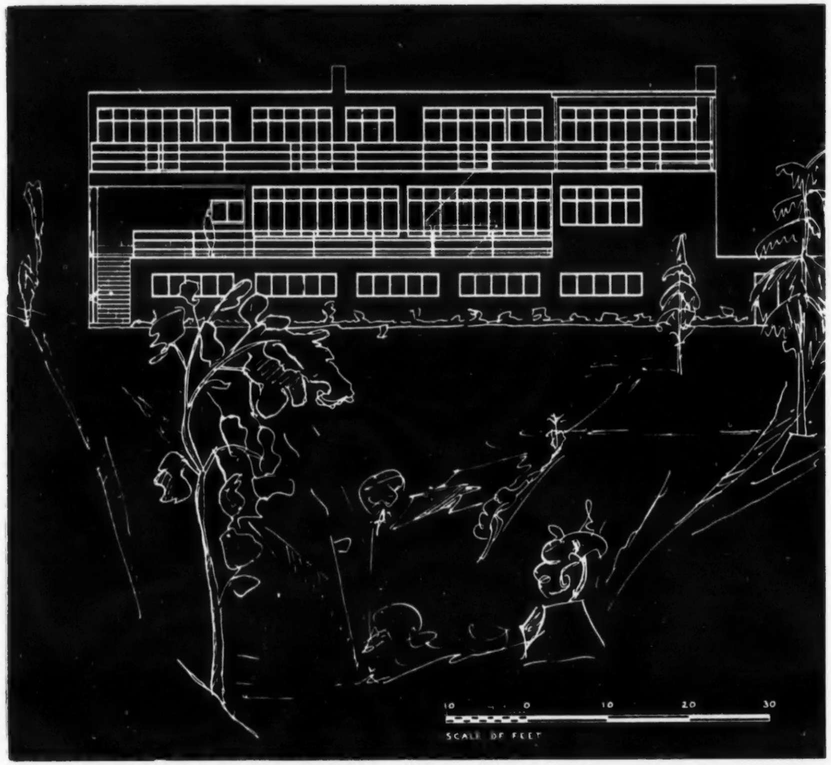
HOUSE IN INDIANAPOLIS : BY COLIN T. PENN



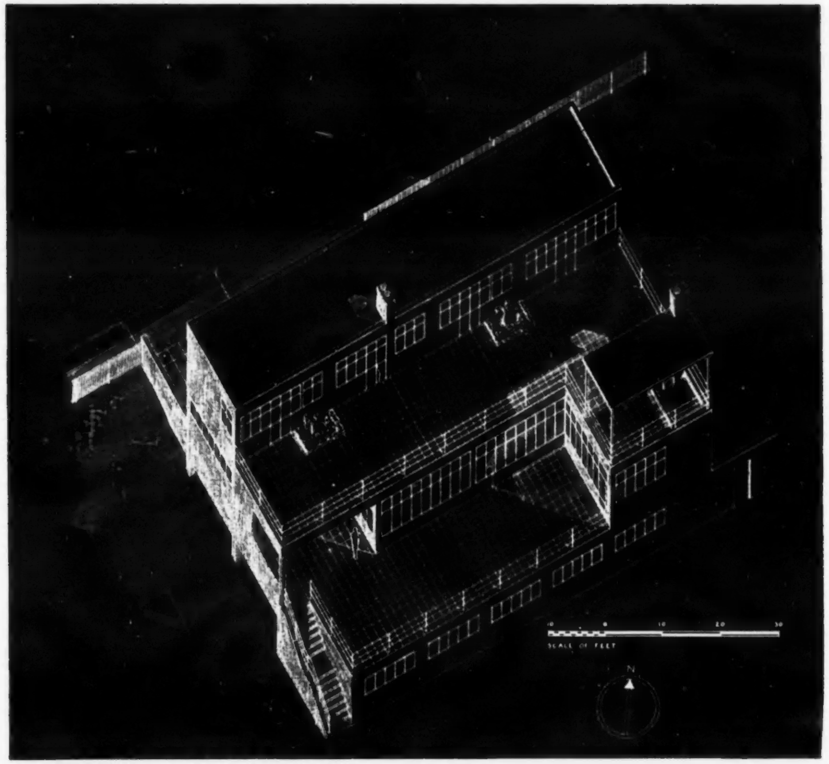
ELEVATION TO ROAD



SECTION


10 0 10 20 30
SCALE OF FEET

ELEVATION TO GARDEN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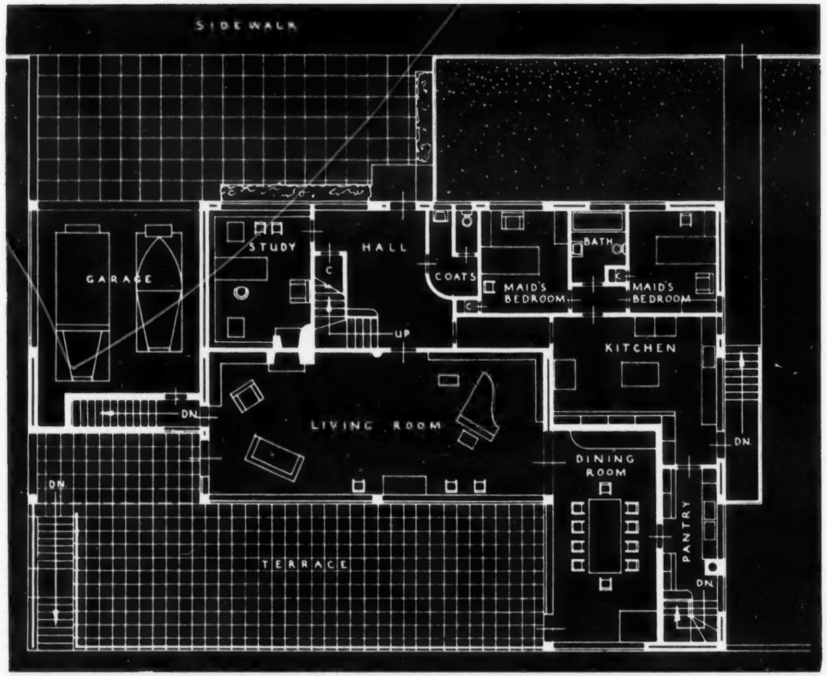
ISOMETRIC PROJECTION

SCALE OF FEET

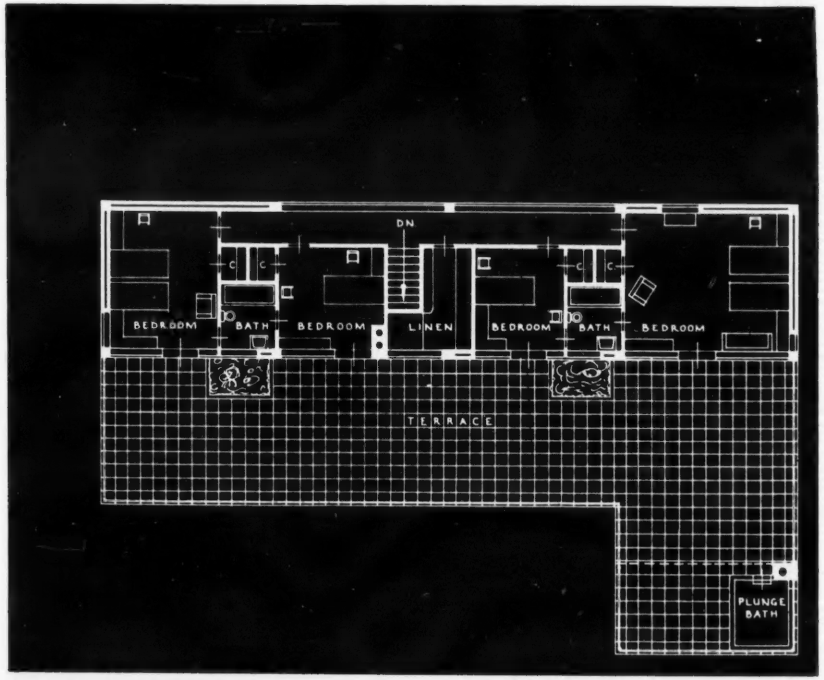
ELEVATION TO GARDEN

ISOMETRIC PROJECTION



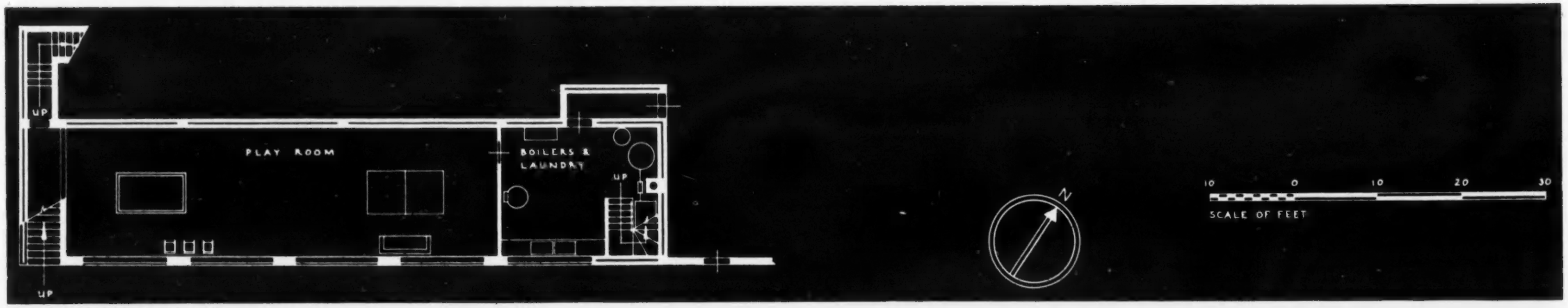
SIDEWALK
GARAGE
STUDY
HALL
C
COATS
MAID'S BEDROOM
BATH
MAID'S BEDROOM
C
UP
KITCHEN
DN
LIVING ROOM
DINING ROOM
PANTRY
DN
DN
TERRACE
DN

FIRST FLOOR PLAN



DN
C
C
C
C
BEDROOM
BATH
BEDROOM
LINEN
BEDROOM
BATH
BEDROOM
TERRACE
PLUNGE BATH

SECOND FLOOR PLAN



UP
PLAY ROOM
BOILERS & LAUNDRY
UP
UP
N
10
0
10
20
30
SCALE OF FEET

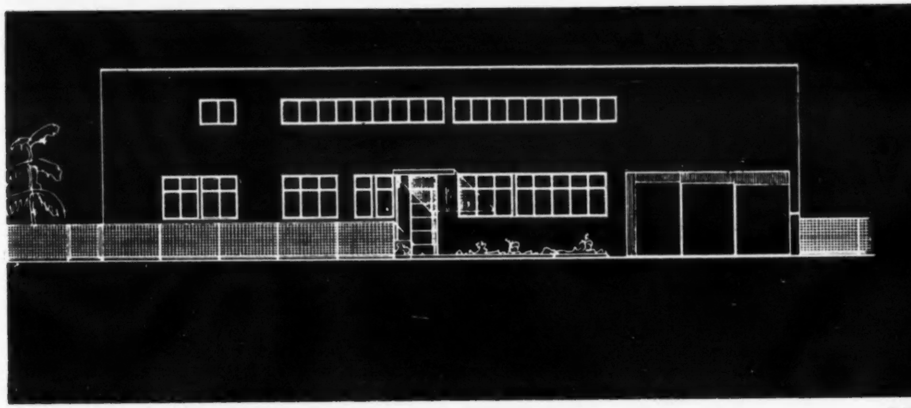
BASEMENT PLAN

The site was at the head of a steep, rocky ravine, with fine views to the south and south-west. The client was a university professor, and, though the accommodation required was fairly extensive, the cost had to be kept down to a minimum.

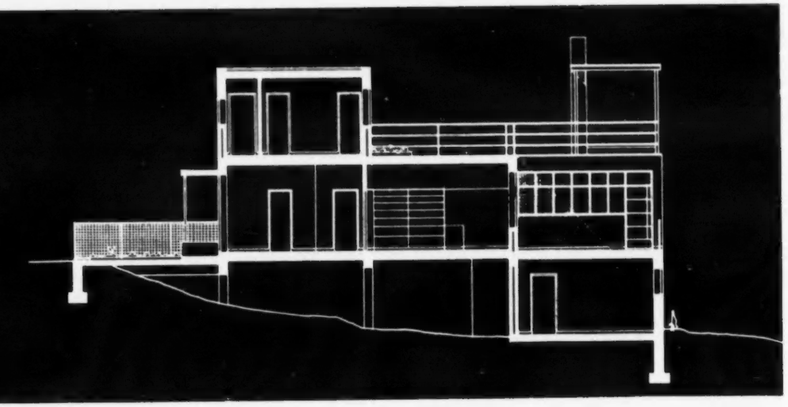
It was accordingly decided that the house should be steel-framed, and kept clear of the ground except for the basement. The columns are all evenly spaced, on 16-ft. and 19-ft. centres. External walls consist of a 4-ins. outer skin of hollow tiles, stuccoed, a 4-ins. air space, and a 4-ins. stud partition, offering high resistance to rain, heat and sound. Internal partitions are of 4-ins. studding, plastered on wallboard. Floors and roofs are of concrete, plastered beneath, on wallboard suspended from the beams. Roofs are insulated with three inches of cork, and, where used as terraces, paved with quarries on asphalt.

Points to be noted on the plan are: the study placed near the front door for interviews, etc.; the proximity of the maids' bedrooms to the kitchen, thereby saving a sitting room; the dining room in which 20 persons can be accommodated; and the large playroom in the basement. On the bedroom terrace there is a curtained sunken plunge bath, under cover of a roof.

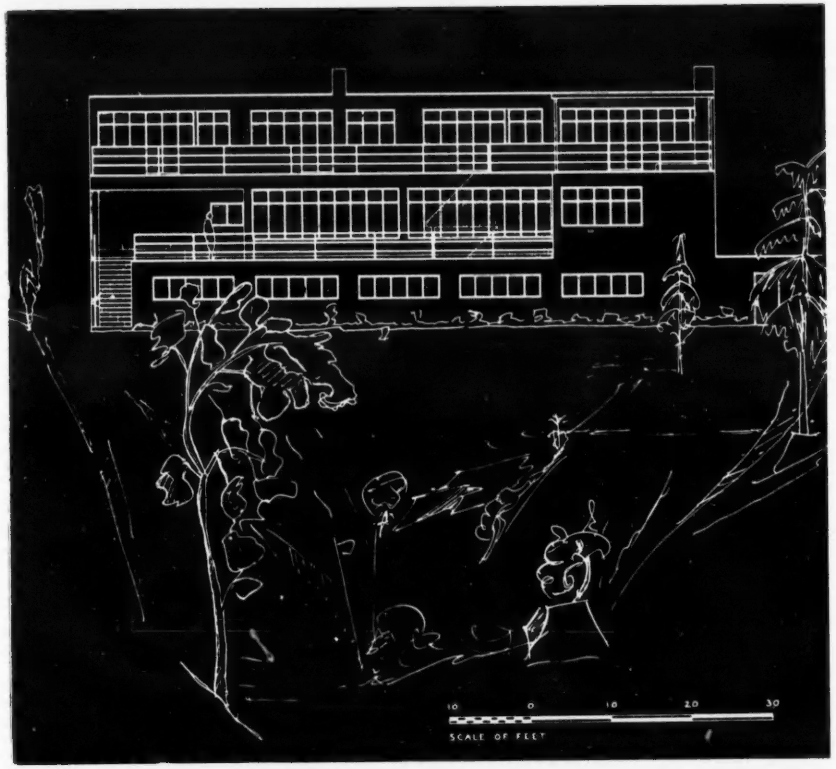
HOUSE IN INDIANAPOLIS : BY COLIN T. PENN



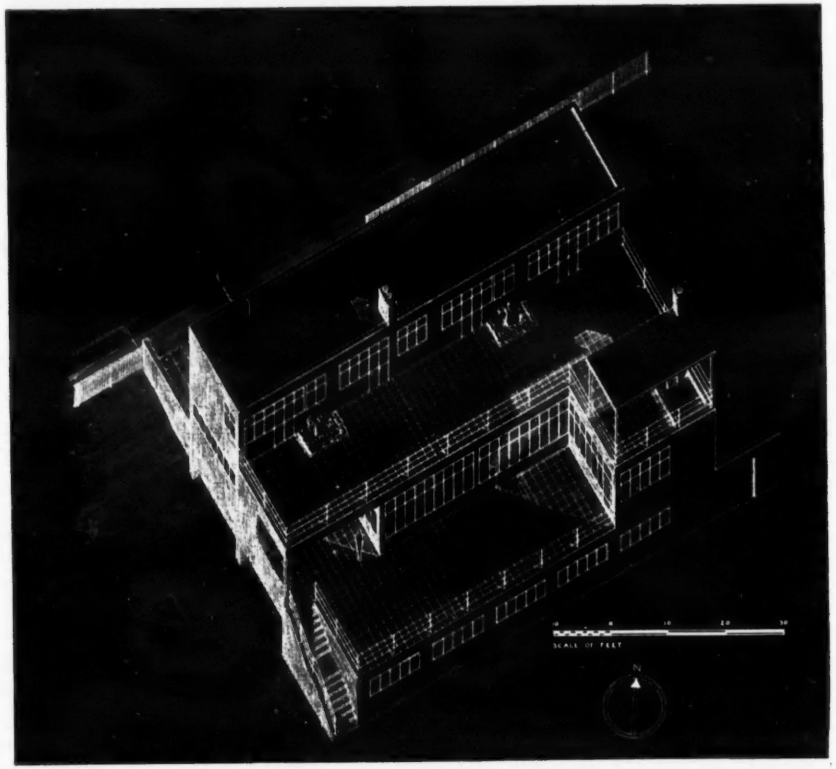
ELEVATION TO ROAD



SECTION


10 0 10 20 30
SCALE OF FEET

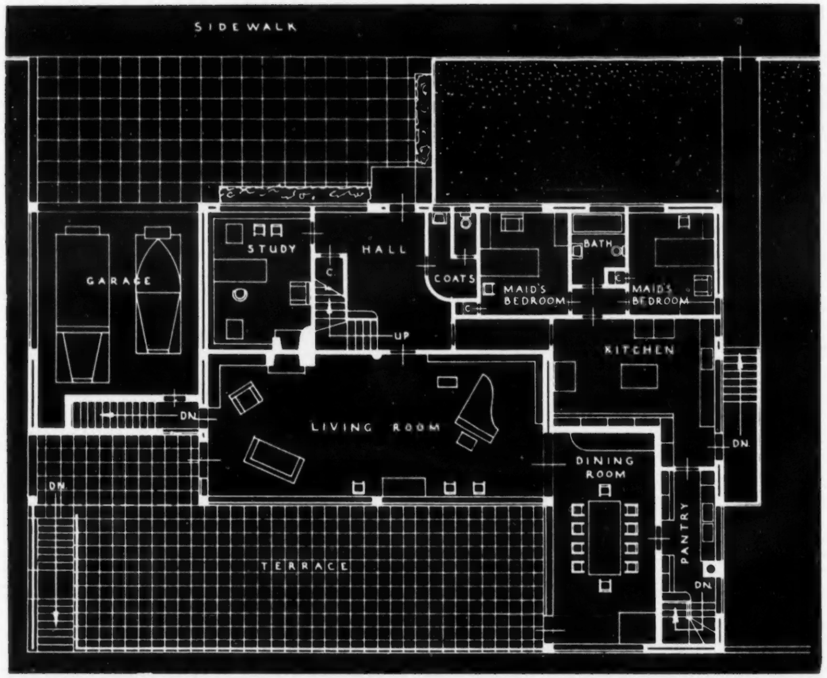
ELEVATION TO GARDEN


10 0 10 20 30
SCALE OF FEET
N

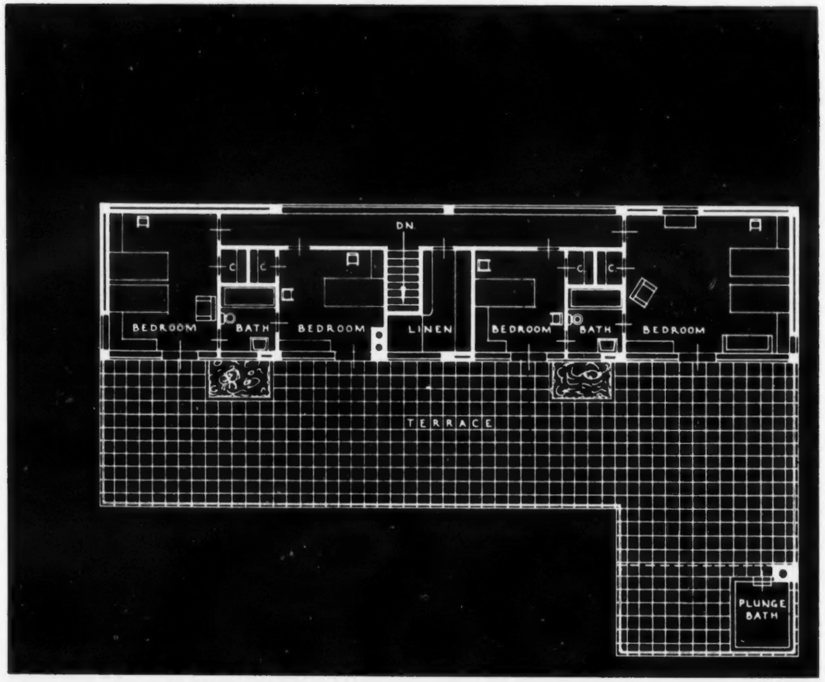
ISOMETRIC PROJECTION

ELEVATION TO GARDEN

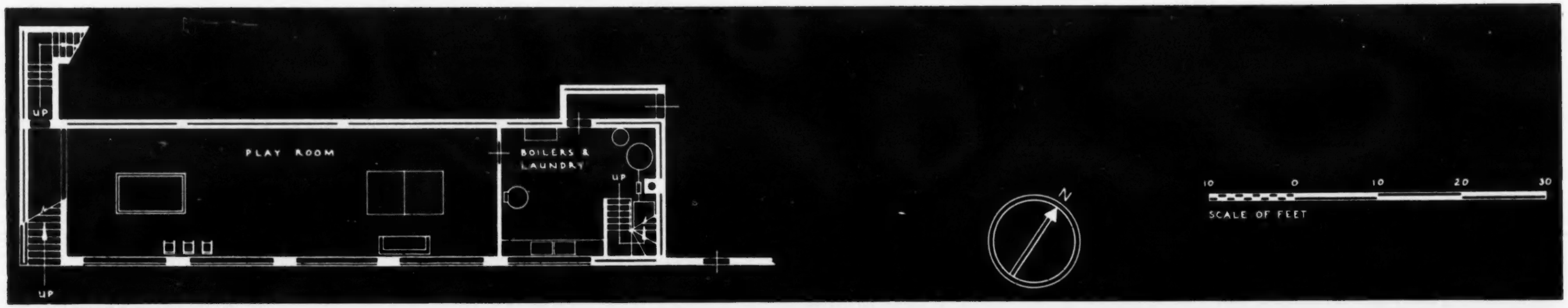
ISOMETRIC PROJECTION


SIDEWALK
GARAGE
STUDY
HALL
C
COATS
MAID'S BEDROOM
BATH
MAID'S BEDROOM
C
UP
KITCHEN
LIVING ROOM
DN
DINING ROOM
PANTRY
DN
DN
TERRACE
DN

FIRST FLOOR PLAN


DN
C
C
C
C
BEDROOM
BATH
BEDROOM
LINEN
BEDROOM
BATH
BEDROOM
TERRACE
PLUNGE BATH

SECOND FLOOR PLAN


UP
PLAY ROOM
BOILERS & LAUNDRY
UP
UP
N
10
0
10
20
30
SCALE OF FEET

BASEMENT PLAN

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LITERATURE

THE PENN COUNTRY

The Penn Country of Buckinghamshire. Published for the "Penn Country" Branch of the Council for the Preservation of Rural England by Evans Bros., Ltd. Price 5s. net.

BUCKINGHAMSHIRE is without doubt one of the loveliest counties of England, and the Penn Country—the subject of this volume—shows it in its loveliest moods. Its gently swelling hills, beech-clad slopes and evergreen valleys have countless associations with history, letters and religious endeavour. Here lived Hampden, Disraeli, Burke and Milton; here Gray wrote his Elegy, and here too Penn and the Quakers found a home.

While this volume has as its first aim the furtherance of the principles for which the C.P.R.E. stands, it is also a serious contribution to topographical literature. All the writers who have collaborated in its production are prominent in their respective spheres.

The Rt. Hon. J. Ramsay MacDonald, in his foreword, writes:

> The heritage of rural beauty and historical treasure remain largely unimpaired. The Penn Country is one of the many corners where for one cause or another the face of the land has not been greatly spoiled, and whose life remains as the possession of all who have eyes to see and minds to love. And it rests with the people of this country whether the inevitable "development" of our land shall spell despoliation, or whether by ordered planning and national preservation these chosen spots shall continue to be a source of healing and refreshment to us and our children.

Other contributors include the Rt. Hon. H. A. L. Fisher, the Hon. Sir Frank Mackinnon, Major Coningsby Disraeli, and Messrs. Guy Dawber, A.R.A., Clough Williams-Ellis, F.R.I.B.A., C. H. Biddulph-Pinchard, F.R.I.B.A., and G. Langley Taylor, F.R.I.B.A.

Mr. G. Langley Taylor, in his article entitled "House Design: Some Things to Avoid," writes:

> The grouping of houses, especially for a large scheme, is vital. If an architectural effect is to be produced then the whole must be visualized and set out so as to give a pleasant perspective. Every case must, of course, be considered on its merits, but generally such grouping as will allow open spaces to be provided is better than simply dividing an acre of land up into so many plots of equal size according to the number allowed to the acre under the Town Planning regulations.
>
> For instance: Fig. 1 shows an uninteresting scheme of houses in two straight lines. The same net number of houses is shown in Fig. 2, which, besides giving scope for grouping and good perspective effects, also provides a considerable saving in road-making charges. The comparable cost per house is in Fig. 1, £52, and in Fig. 2 £30 (based on a road-making charge of £9 per lineal yard as given in the Ministry of Health's Housing Manual, 1927, from which these examples are quoted). If a narrow carriage-way is adopted for the scheme shown in Fig. 2 the saving per house may be £30, or roughly £1,040 on the scheme.
>
> In many cases, the small houses are the chief offenders, but this is by no means always so. Often houses costing quite a good sum are hideous in the extreme, and a disgrace to the owner and the builder.
>
> The junction between roof and walls is another important and often mutilated spot. The cost of making an interesting eaves is not great, and the value of the shadow cast by the overhanging is incalculable. It is held that one of the important matters in design is to make your building "sit" on the ground, or look as if it grew out of it. Keeping the roof down and having a good, deep shadow will greatly help to do this. The sprocket is not expensive. The rafters' feet should be cased in and the soffit and fascia may be in elm, and so save the cost of painting. The presence of the sprocket will give the lower part of the roof a flatter pitch, and help considerably in its appearance, as shown in Fig. 3.
>
> If the walls are plastered the soffit may be treated in the same way.
>
> The effect produced by the eaves is often spoilt by the size of the rain-water gutter. It should not be mean: 4½ in. or 5 in. looks better than 4 in. One way not to construct the eaves of a roof is shown in Fig. 4.

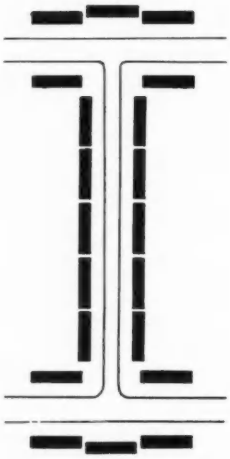


Figure 1.

A BUILDERS' PRICE BOOK

Laxton's and Lockwood's Builders' Price Book. London: Kelly's Directories, Ltd. Price 7s. 6d. net (post free).

THIS book has now reached its one hundred and sixteenth edition. No drastic alterations have been made in the matter contained in the 1933 edition, but minor rearrangements have been carried out to make the information more accessible.

A special feature is the scale of day work charges recently agreed upon between the Chartered Surveyors' Institution and the London Master Builders' Association, besides, of course, the standard rates of wages in the Building Trade in England and Wales, which came into force on February 1, 1933. The prices given in the book include 15 per cent. to cover builders' profit and overhead charges, except where it is more convenient to quote net prices, in which case it is clearly stated.

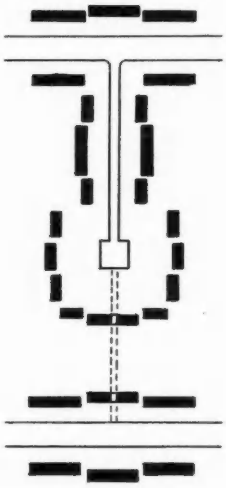


Figure 2.

The London Society

Sir George Truscott presided at the twenty-first annual meeting of the London Society, held at the Mansion House, E.C., on Tuesday of last week.

The Earl of Crawford and Balcarres, in moving the adoption of the annual report and accounts, said we had the power to see the Thames broadside from only one high-level spot in London—the Adelphi Terrace. He hoped that if and when any reconstruction of that historic and very beautiful area became necessary, the frontage over the river and the magnificent view might be preserved. It was the only view of its character which was left; it was all the

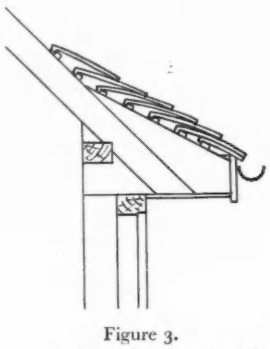


Figure 3.

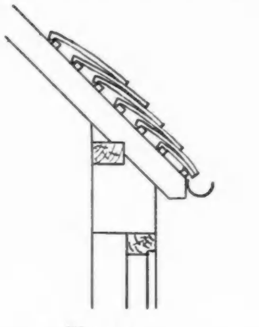


Figure 4.

The figures on this page are from THE PENN COUNTRY OF BUCKINGHAMSHIRE.

more precious and therefore all the more worthy of being preserved. The view belonged to him as much as the houses belonged to their proprietor.

Sir William Llewellyn said all new planning and rebuilding should be carried out under a controlling authority, who would see that important old buildings were preserved with sufficient space around them so that they could be seen at a distance.

Architecture, more than any other art, he continued, needed the stimulus of public opinion, but that opinion must have knowledge and sympathetic interest at its back. The future of London concerned us all. The matter had become one of extraordinary importance, and, failing the setting up of a controlling body or the adoption of a definite development plan, the London Society might co-operate with other important bodies to form an organization that would be in a position to obtain information and to act quickly before it was too late.

Sir Raymond Unwin, referring to the menace to Adelphi Terrace, feared that the erection of high buildings in front of it might be tolerated because of the open space. The owner of property facing an open space had probably far less right, he said, to increase the height of buildings than those whose land lay farther back. Unless this was realized London would be surrounded by a wall of lofty buildings shutting off light, fresh air and outlook from the public, which had by long use acquired a property right in them.

Architectural Sculpture

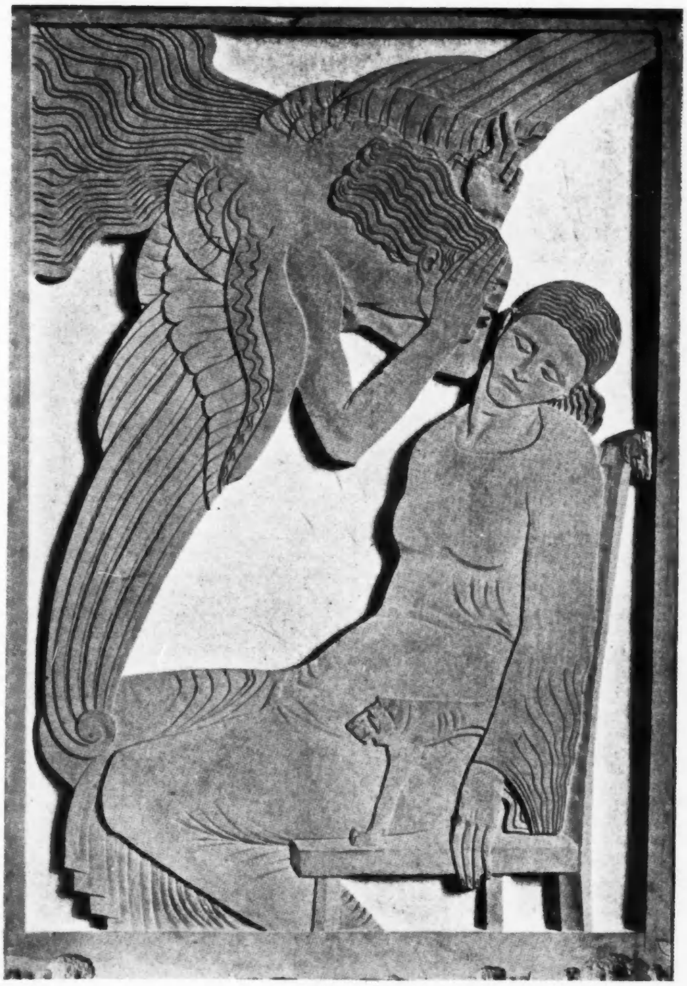
On Tuesday of last week Mr. William Aumonier lectured to the Incorporated Association of Architects and Surveyors on "Modern Architectural Sculpture." During the course of the lecture Sir Alfred Gilbert, the sculptor of the Queen Alexandra Memorial, London, here illustrated, walked out of the hall after protesting at some of the lantern slides which were being shown, one of which, "The Annunciation," by Ivan Mestrovic, is also reproduced on this page.

Mr. Gilbert Bayes, who presided, describing the incident, said: "Twice, or possibly three times during the lecture Sir Gilbert rose and asked: 'Are we expected to take all these things seriously?' Frankly, I sympathized with his protest. Some of the photographs we were shown undoubtedly merited that question. It was a protest which was perfectly justified."

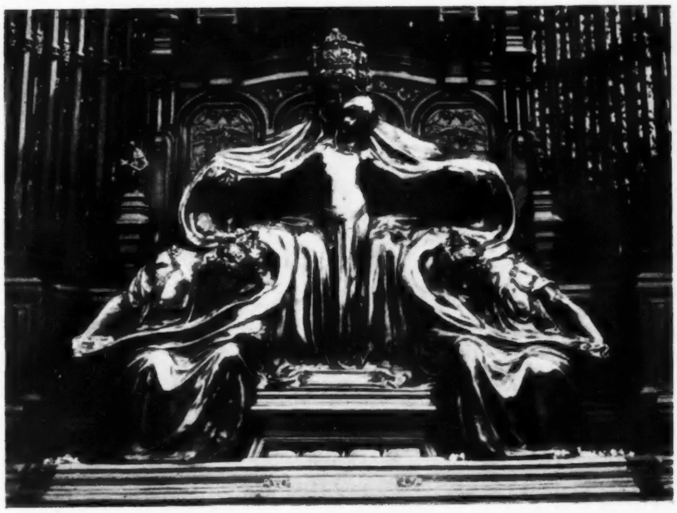
Mr. W. Aumonier has made the following statement:

It stands to reason that in giving a lecture on a subject like this one naturally selects illustrations with a "punch" in them; it does not, however, follow that I personally approve everything I show, especially some of the Continental examples. But for the purpose of a lecture I think it is extremely interesting to see what is being done at home and abroad in modern sculpture.

ARCHITECTURAL SCULPTURE

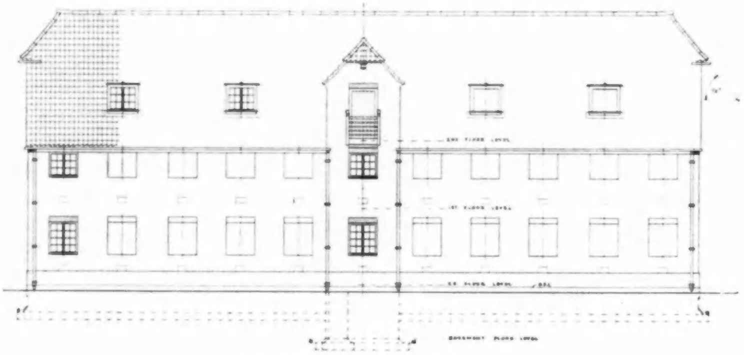


[*From* MODERN ARCHITECTURAL SCULPTURE.

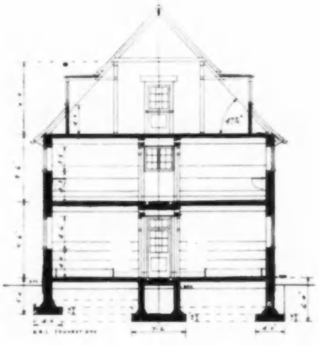


Above: The Annunciation. By Ivan Mestrovic. Below: The Queen Alexandra Memorial, London. By Sir Alfred Gilbert. (See note on this page.)

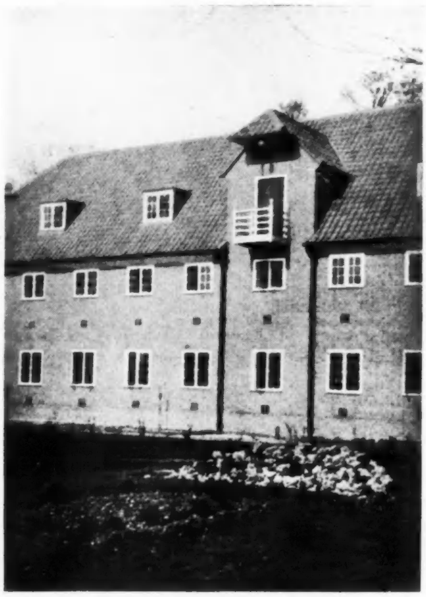
ANIMAL HOUSE, FARM LABORATORIES,



SOUTH ELEVATION



SECTION AB



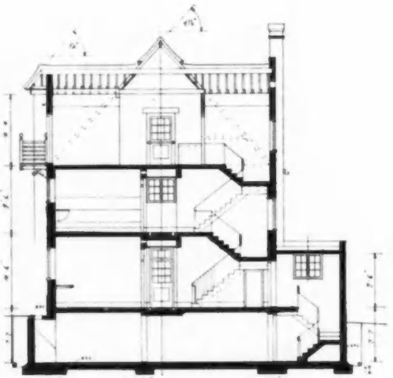
The purpose of this building is the breeding of absolutely normal and healthy guinea pigs, rats and mice. Accommodation was needed for approximately 1,600 guinea pigs, 2,000 rats and 5,000 mice, with room for future expansion. Among the requirements were a steady temperature of about 65 degrees, a constant change of air without draughts on the animals, construction allowing regular and frequent washing down with lysol and water, an efficient steamer for sterilizing cages, dishes, etc., storage room for large quantities of fodder and accommodation for a daily staff of eight.

Walls are of brick—external sand-faced; internal, smooth sand-lime facings, distempered ivory. The roof is covered with pantiles on battens, felt and boarding. Windows are metal casements in stout wooden frames, all painted broken white. External doors are bright green; frames, broken white. A hand-hoist is provided for stocking the loft, with fixed handrail.

Foundations, floors and staircase are of reinforced concrete. Ground and first floors are laid to falls and paved with special hard asphalt, designed neither to develop germ-harbouring cracks nor to be easily indented with the temperature at 65 deg. These floors are drained by channels along central corridors, covered with movable galvanized gratings.

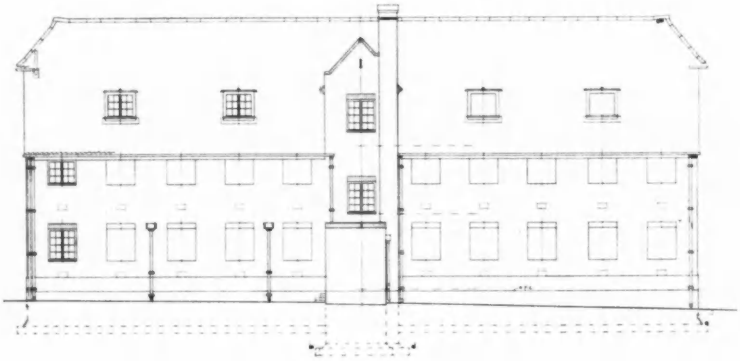
Ventilation is by inlet gratings under windows (behind radiators), and extract gratings near ceilings, leading to ducts above sub-ceilings to corridors. Extraction is by electric extract fan in a dustproof chamber in the loft.

The building was planned on the system of a large number of small rooms for two reasons: to enable an outbreak of disease to be more easily isolated; and to provide a large wall area for shelving for cages. All shelving, working tables, benches and sinks are cantilevered from walls to leave floors clear for washing down. The shelving is constructed with light steel angles and flat sections, in skeleton form, bitumen painted. Working tables, benches and sinks are constructed in teak.



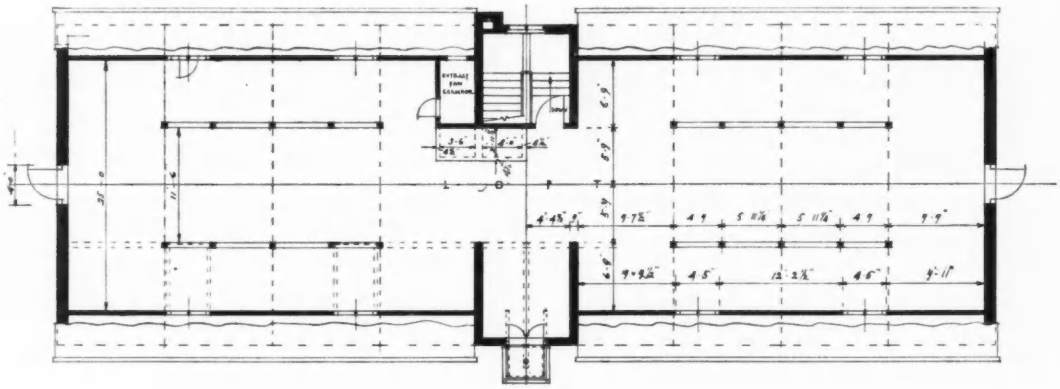
CENTRE CROSS SECTION

SCALE OF FEET

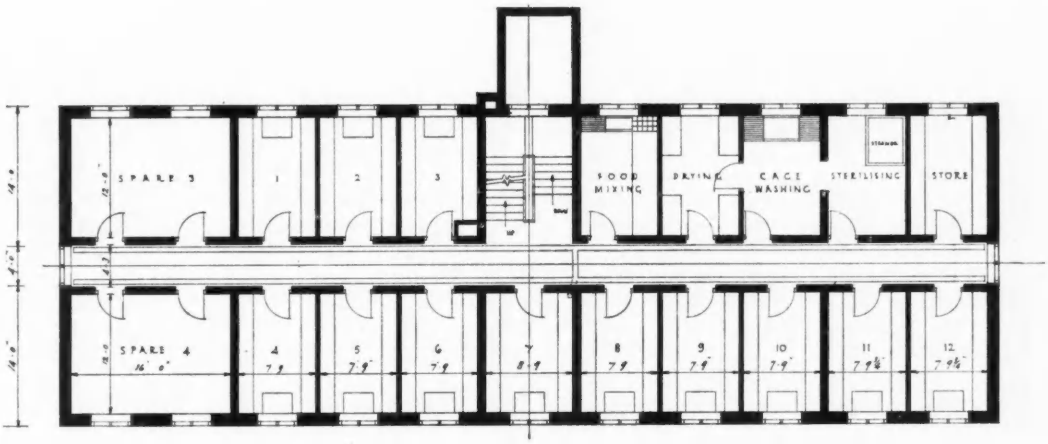


NORTH ELEVATION

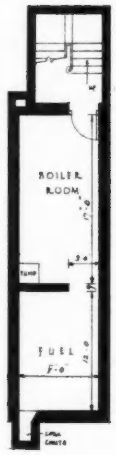
MILL HILL : BY THEOBALD AND SKURRAY


EXTRACT FAN CHAMBER
DOWN
35' 0"
11' 6"
6' 9"
8' 9"
9' 7½"
4' 9"
5' 11½"
4' 9"
9' 9"
9' 9½"
4' 5"
12' 2½"
4' 5"
9' 11"

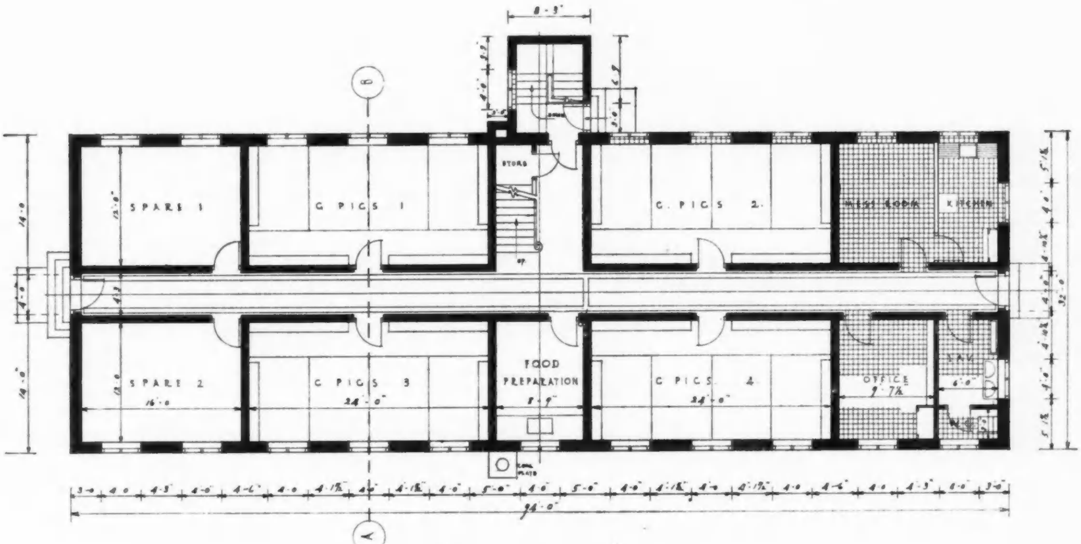
SECOND FLOOR PLAN


SPARE 3
1
2
3
UP
DOWN
FOOD MIXING
DRYING
CAGE WASHING
STERILISING
STORE
SPARE 4
16' 0"
4
7' 9"
5
7' 9"
6
7' 9"
7
8' 9"
8
7' 9"
9
7' 9"
10
7' 9"
11
7' 9½"
12
7' 9½"
14' 0"
4' 0"
12' 0"

FIRST FLOOR PLAN


BOILER ROOM
FUEL
5' 0"
12' 0"
3' 0"

BASEMENT


8' 9"
B
STORE
UP
SPARE 1
G. PIGS 1
G. PIGS 2.
MESS ROOM
KITCHEN
SPARE 2
16' 0"
G. PIGS 3
24' 0"
FOOD PREPARATION
8' 9"
G. PIGS 4
24' 0"
OFFICE
9' 7½"
LAV.
6' 0"
W.C.
14' 0"
4' 0"
32' 0"
94' 0"
A

GROUND FLOOR PLAN

SCALE OF FEET
5 0 10 20 30 40 50

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright Reserved.

Sound Insulation

¶ *WITH a view to reducing the transmission of sound between two adjacent houses, and particularly the noise from wireless loud-speakers, the party wall had been built in cavity construction. But this had not been found entirely effective. The builder proposed erecting other houses of similar design, and he asked whether the use of of a light breeze concrete filling, poured into the cavity, would improve the insulation of the wall.*

There are two principal methods by which sound may be transmitted through a party wall. These are :—

1 : The passage of air-borne sound through openings in the wall and through the interstices of the material itself.

2 : The formation of a secondary source of sound due to the vibrant action of the wall.

There is in addition a third possible method —i.e., conduction along carcase walls common to both houses. Though not entirely ruling out this method, since it may be a contributory factor, less importance is attached to it in the case of a small domestic structure, for it is well known that less sound is conducted in this way along a wall which is heterogeneous, such as one constructed of bricks in lime mortar, than along homogeneous fabrics.

To combat the first method of penetration, i.e., by way of passages in the wall and through interstices in the walling material, it is important that the wall should be as air-tight as possible, a condition which implies a high standard of construction. The sound-proofing efficiency of a badly-built wall with open joints would be less than that of a solidly-built wall of the same thickness. Again, the efficiency of a normal 9 ins. solid wall or an 11 ins. cavity wall would be seriously impaired if pierced by floor joists. It is important, therefore, that where this is unavoidable the openings should be completely closed up with cement mortar.

Referring to the second case, in which a secondary source of sound may be created by the wall itself actually vibrating, this action is analogous to the vibration of any very thin membrane. It is evident that the factors governing this vibrational action are the mass and rigidity of the wall section. In other words, a wall which is heavy and reasonably thick, such as a 9 ins. brick wall, would be less liable to transmit sound in this manner than a partition built of lighter membranes, which would be liable to vibrate in sympathy with any given sound, and thus re-transmit the sound to any adjoining room.

Considering now the case of the cavity wall, there is no doubt that considerable increase in sound-proofing efficiency would be gained by the use of two separate solid walls, having only a small air space in between, provided the two walls are entirely independent and unconnected. This advantage is, however, nullified in practice by the connection afforded by the metal ties necessary for structural reasons, since the sound is conducted along the ties, transmitting sound waves from the first to the second leaf and resulting in the vibrational action above mentioned.

With regard to the suggestion to fill the cavity with fine clinkers and cement, apart from the danger if unsound clinker concrete is used for this purpose, owing to the risk of corrosion to the wall ties, it is doubtful whether any significant improvement would be gained by the use of a light filling of this character ; its presence in the cavity would not, so far as can be seen, result in any fundamental change in the structure of the wall, which would still function in respect of sound transmission as a cavity wall. It is probable, however, that if, instead of using a light concrete filling, the cavity was filled with a good, dense, fine concrete, well tamped to ensure consolidation, a definite improvement would result. The effect in this case would be to change the wall structure from that of a two-leaf cavity wall to a solid 11 ins. wall, thereby climinating all vibrational effect of the separate 4½ ins. leaves and at the same time obtaining the additional sound-proofing efficiency which results from increased mass and rigidity.

Should this not prove entirely effective, the only alternative (apart from two separate 9 ins. walls) would seem to be to construct a 13½ ins. solid wall, for though a well-built 9 ins. wall should offer sufficient obstruction to the transmission of conversational sounds, it seems probable that the intensities and frequencies of the sound in this case may be such as to necessitate the use of a thicker wall.

Wall Finish to Withstand Rough Usage

¶ *AN architect sought information regarding any efficient substitutes for wallboarding on cement rendering that would be suitable for rooms in a hostel and less liable to be damaged by rough usage.*

It is assumed that glazed bricks or glazed terra-cotta blocks would be unsuitable for the purpose mentioned. Ruling out materials of this type, it is somewhat difficult to suggest an alternative which would not be damaged by rough usage, but the following are perhaps worthy of consideration :—

1 : A sprayed cement finish applied over a cement rendered background. This type of finish can be obtained in a fairly wide range of colours by the incorporation of suitable colouring pigments in the white cement base ; there are a number of such proprietary finishes on the market.

2 : Decorated, metal-faced plywood. This material is obtainable in a number of plain colours and marbled finishes and should make a durable lining, though the decorative finish would, of course, be liable to be scarred by rough treatment.

3 : Stout linoleum with a glazed finish, cemented to a smooth rendered background. A lining of this type would not, it is thought, be easily damaged and should not require any periodical maintenance other than ordinary cleaning. The walls and rendering should, of course, be thoroughly dry before the linoleum is applied, and it is recommended that the fixing of the linoleum should be done by a firm who specialize in this work.

Heat Emissivity of Painted Radiators

¶ *AN architect required information on the heat emission of variously painted radiators.*

The nature of the surface of a radiator can only affect that part of the total heat output which is due to the direct radiation of heat to cooler surfaces; the amount of heat given up to the air is independent of the surface. In Food Investigation Special Report No. 9 by Griffiths and Davis (published by H.M. Stationery Office, price 1s. 6d.), the following relative figures are given for the radiant efficiencies of various surfaces :—

Surface	Radiant efficiency
Dead Black	1.0
Black Paint	1.0
Black Enamel	1.0
Dark Green Paint	1.0
White Paint	1.0
White Enamel	1.0
Aluminium Paint (1 coat)	0.7
,, ,, (2 coats)	0.5 to 0.7
,, ,, (rubbed with fine sandpaper)	0.8
Dull Copper Surface	0.15

It will be seen that for all non-metallic paints the radiant efficiency is constant, irrespective of their colour or degree of gloss. Aluminium paint has a lower efficiency, and this property is common to all metallic paints, which, though variable in efficiency, depending upon the amount of binder present, in general may be taken as definitely inferior in emission to black and coloured paints.

For the relative amounts of heat emitted by radiation and convection from various types of radiator under various conditions reference should be made to Dr. Margaret Fishenden's book on *House Heating* (Witherby, 1925, p. 253, *et seq.*). Assuming that 13 per cent. of the heat of a cast iron sectional radiator at 160° F., coated with ordinary paint, is due to direct radiation, repainting the radiator with one coat of aluminium paint would, from the above figures, reduce the amount of radiated heat by 30 per cent. and the total heat output by 4 per cent.

[Owing to pressure on space, we are reluctantly compelled to hold over part of this section till next week. ED.—*A.J.*]

SOCIETIES AND INSTITUTIONS

FLOODLIT BUILDINGS

FLOODLIGHTING. By H. Lingard, A.M.I.E.E. At the Lighting Service Bureau, London, March 15.

Superficially it would seem that the best type of floodlighting for any exterior would be that simulating daylight conditions, but, while this may be true for buildings of classical design, much greater variety and flexibility is obtained on buildings of modern design when an alternative is adopted: it is not too much to say that by carefully planning the mouldings and projecting surfaces on a building, it is possible to produce almost any effect of light and shade by skilfully-placed floodlighting apparatus.

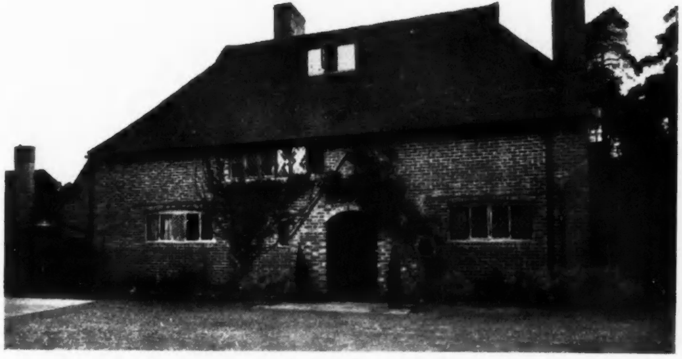
One of the most important points in connection with the satisfactory design of floodlighting installations is the concealment of the projectors. It is of paramount importance that this point must be carefully considered by the architect when planning a building which may have to be floodlighted at some time. It should be impossible for the observer to see where the light is coming from.

EDINBURGH ARCHITECTS

At the last meeting of the Council of the Edinburgh Architectural Association the secretary reported that the revision of the general conditions of contract affecting building works in Scotland had now practically been completed by the Joint Committee of Architects, Surveyors and Contractors.

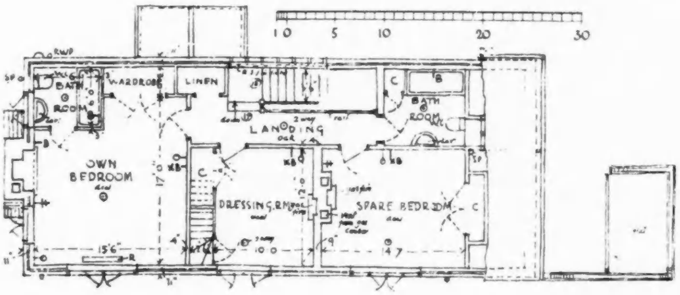
Nominations were received for the Scottish Architecture Medal 1927–32, while arrangements were intimated as to the annual Convention of the Royal Incorporation of Architects in Scotland to be held in Edinburgh on June 2 and 3. The following members were elected: Associate: Mr. Basil Spence; Students: Messrs. F. R. Stevenson and John Ogilvie.

A HOUSE AT BYFLEET

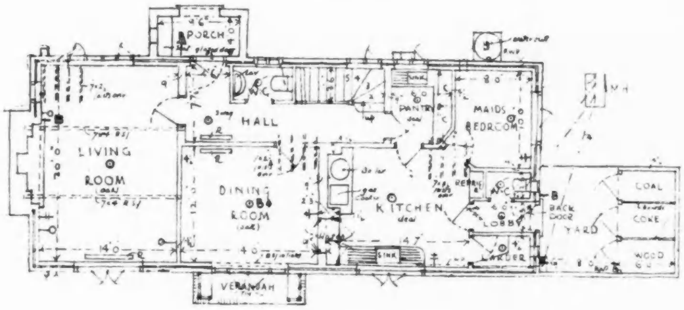


DESIGNED BY IMRIE AND ANGELL

The external walls are 11 ins. hollow, the outer face being built with Surrey facing bricks. The oak window frames are filled in with steel casements and leaded lights; and the roof is covered with hand-made sand-faced tiles. The floors to the living room, dining room, hall and landing are in oak, and the porch is paved with quarry tiles. The staircase also is in oak.



FIRST FLOOR PLAN

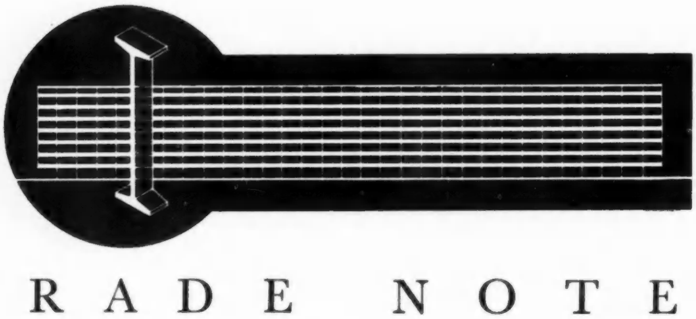


GROUND FLOOR PLAN

BRIXTON SCHOOL OF BUILDING

Mr. F. E. Drury, Principal of the Brixton School of Building, speaking at the annual exhibition of work and distribution of prizes on March 10, said the present position of the industry was difficult and there were many young men and women unemployed. He was convinced, however, that it would not be long before we had a definite improvement.

Prizes were distributed by Major A. D. S. Rice, President of the London Master Builders' Association; and Mr. H. D. Searles-Wood, F.R.I.B.A., presided.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

¶ Though Trade Notes has been a useful feature of this JOURNAL for many years, it has been felt for some time that a direct approach to the manufacturer through the medium of an architect of recognized standing might increase the value to the reader, since only an architect can realize the exact nature of the information that is required by other architects.

We have therefore arranged to enlarge the scope and point of these notes by placing the selection of products to be reviewed in expert hands, and we have been fortunate in obtaining for this purpose the services of Mr. F. R. S. Yorke, who, besides being well known as one of the most progressive of the younger architects, has a unique knowledge of materials and is in close contact with the work of British manufacturers.

We hope that architects and manufacturers will find this new development useful, and their co-operation in providing information or suggesting lines of approach will be much appreciated.

It is more important than ever today that manufacturers and architects should be kept in close contact with each others' work and aims. ED.—*A.J.*

ONE of the most important functions of the architect is the exercise of that indefinable quality of taste in the selection of materials—a problem becoming more difficult with the incessant invention and marketing of new and unprecedented products, which offer innumerable possibilities and a rare right solution.

Apart from having a general textbook knowledge of structural elements—the size of a brick, the correct proportions of sand to cement, and so on—the architect usually knows little about materials. The manufacturer is in a position to supplement the textbook by introducing the things he makes in an intelligent manner, but, at present, new products are rarely introduced even attractively : the appeal is too often made in the wrong direction, and products which deserve attention are sometimes overlooked by those in whose hands they might be used with understanding, and remain in obscurity, or are employed with no consideration of fitness for purpose, and are so misused that they fall into disrepute before their portent is appreciated or their full resources have been exploited.

I intend to devote these notes, week by week, to a review of building products, not always new ones, but occasionally those that may have escaped notice in the past. My object will be to give the information that is required by the architect, uses and limitations, methods of handling and fixing, measurements, and other data, and, wherever possible, approximate or relative prices.

I shall be grateful to architects and manufacturers who send specifications and illustrations of intelligently-produced materials and fittings, and I particularly want to receive details of new standardized building equipment.

BECAUSE I hope these notes will not be disregarded by manufacturers, I take the present opportunity to mention trade circulars : one of the few subjects upon which architects hold views in common.

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A few trade circulars give well presented and significant information, and illustrate a product in such manner that its portent is immediately apparent. The others, because they do not fulfil their quite simple function, generally through over-ambition, are useless ; their production and distribution wastes the money of the manufacturer and the time of the architect. I cannot understand why the former fails to realize that 99 per cent. are destined to go to the waste-paper basket, without receiving even casual perusal. An impression is gained at a glance, and I imagine that a representative spends much of his firm's time endeavouring to dissipate impressions created by its literature.

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It should be remembered that the architect is, in normal times, a busy man, and at any time has something more interesting to do than puzzle through a jumble of irrelevant facts and over-statements.

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A circular, to be of use to the architect and of profit to the manufacturer, should state precisely and concisely the purpose of the product in question, and should give a brief but complete specification, and when necessary an illustration, preferably a detail drawing, to scale or dimensioned.

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There is a tendency, too, for the manufacturer to take a first-rate finished product and proceed to "design" it, adding ornament that gives it a second-rate appearance and destroys all indication of its recent origin. Thus an innovation of importance may escape notice because it is prevented from expressing its purpose. This happens, for instance, when a new material is employed in the manufacture of a familiar object, or when a new process is brought to the solution of an old problem, as synthetic resin and metal alloys are used in the production of door furniture and similar fittings, or a new form of electric lighting or electric heating is placed on the market.

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One realizes that the majority of mass-produced goods will retain their present forms until the demand for something better is sufficiently great to justify a change, but the architect can assist in the enforcement of a new standard in industrial design by exercising greater care in selection. At the same time, when he is working in a new material that suggests a new form of treatment, the least the manufacturer can do, even in his own interests, is to consult an expert in design, who is conversant with present-day requirements, and who knows that "period," and "jazz" or "modernist" ornament are equally out-of-date. The manufacturer is inclined to design to suit his own taste rather than that of the consumer.

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My object in these notes is to deal with materials and accessories in so far as they are of interest to the architect. Accordingly I shall not confine myself to the latest inventions only, but I shall discuss developments of existing products, and, in certain cases, interesting devices that have been for some time available, but are possibly little known.

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I shall be pleased to answer questions that may arise, or give further information when it is required, and I shall welcome suggestions from architects and manufacturers.

Glass, a useful brochure

A brochure of the type that the architect will, I believe, keep for reference has recently been issued by Messrs. James Clark and Son, who have obviously been at some pains to discover just how much the architect should know about the material he is using.

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A short and sensible foreword is followed by a summary of the various kinds of glass, giving thicknesses, sizes of stock sheets, strength, and, in the case of opaque glass, a table of colours. Distinction is drawn between those colours always in stock and those requiring some weeks for delivery, and the more expensive types are marked by an asterisk.

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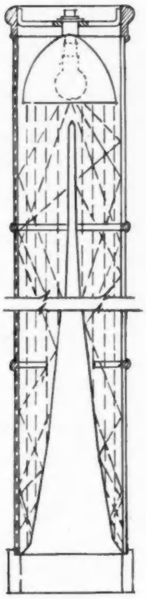
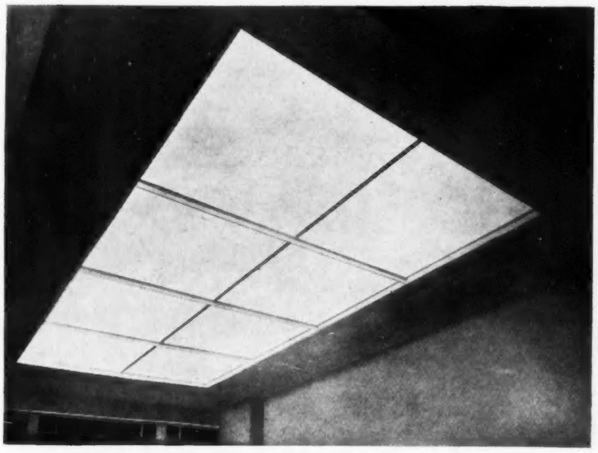
A section on the decorative treatment of glass deals with :—

Grinding and polishing,
Sand-blasting,
Acid etching,
Brilliant cutting,
Chemical deposition of metals,
Colour spraying,

and, finally, a page on fixing gives details of adhesive fixing, screw fixing, and wood and metal fillet fixing.





Above : A lay-light, 12 ft. x 6 ft., providing a floor illumination of 9 ft. candles, in a room 25 ft. by 20 ft., from one 300-watt lamp.

Left : A glass column 8 ft. 6 in. high, illuminated by a single 200-watt lamp.

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The telephone number of the enquiry department is printed clearly, and against it are the names of the men from whom information may be obtained.

Economical Cornice Lighting

Concealed lighting, in the form of cornice or lay-lights, is generally accepted as the most satisfactory means of providing artificial illumination, but is not generally employed because the multiplicity of bulbs, which must be small and closely spaced if an uneven effect is to be avoided, and the consequent high cost of maintenance and current consumption, makes the method expensive.

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Since the intensity of artificial light at its source is no longer the determining factor in planning illumination for a given area, and uniformity, extent of distribution, and elimination of glare are dependent upon reflection and diffusion, there should be considerable scope for the G.V.D. system of concealed lighting, directed towards the economical use of current, by which lay-lights, cornices and horizontal or vertical troughs, of considerable dimensions, may be evenly illuminated by a single ordinary lamp of moderate wattage.

By this system a lay-light, for example, 12 ft. by 6 ft. in a room 25 ft. by 20 ft. by 11 ft. high, will yield, from one 300-watt lamp, a floor illumination of 9 ft. candles—a good working light. The glass surface of the lay-light itself is evenly illuminated, though the lamp is arranged at one side, and because the light is diffused from so large an area the illumination in the room is practically shadowless.

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The heat generated by the single lamp is negligible and no special ventilation arrangements are necessary. A depth of about 12 in. between the lay-light and the underside of a structural floor is sufficient to accommodate the lighting equipment, which consists of two principal parabolic reflectors, and a number of other reflectors, working together to provide an even distribution of light.

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When the system is applied to cornice lighting a 200-watt lamp, placed at one end of a trough 9 in. square by 17 ft. long, which accommodates the reflectors, will illuminate a room 17 ft. by 12 ft. by 9 ft. high, and yield 4 to 5 ft. candles at floor level.

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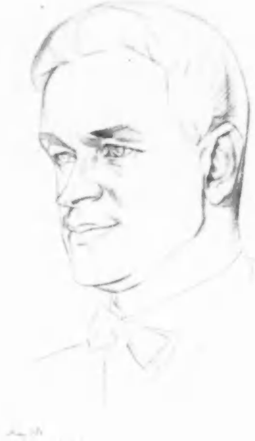
The accompanying diagram shows a glass column, 8 ft. 6 in. high, illuminated by this system from a single 200-watt lamp.



Reginald A. Cordingley, M.A., A.R.I.B.A., who has recently been appointed to the Professorship of Architecture and as Director of the School of Architecture at Manchester University, in succession to Professor A. C. Dickie. From 1929 to 1932 he was Master of Architecture and Head of the School at Armstrong College, Durham University. He was awarded the Rome Scholarship in 1923. The above sketch is by Robert Lyon, A.R.C.A.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

World Economic Conference

DURING a debate on the World Economic Conference, Mr. Boothby, a Unionist member, said that the cause of the world economic crisis was the fall in wholesale prices, and the remedy for that was to raise those prices by increasing expenditure, and particularly loan expenditure. He believed that if the Government would take their courage in their hands, the factor that would be most responsible for hauling this country out of the present depression would be expenditure in capital development on housing construction in the next three or four years. In Europe they were far ahead of us in slum clearance and in housing schemes. In Vienna, in Hamburg, in almost any German city, they would find better working conditions, so far as housing was concerned, than could be shown in any big industrial centre in this country. The irony of the business was that a large part of the money which went to create these new housing schemes came from the City of London. It would have been much better had that money been spent in this country, and the City of London would not have regretted it, because they would have had a safer and surer return on their money if they had lent it in this country.

Use of British Materials

Mr. Robinson asked the Minister of Health whether he was satisfied that local authorities were loyally observing the condition as to the use of British materials laid down in Circular 1060 of December, 1929.

Sir Hilton Young said he had no reason to think that local authorities were not generally acting in accordance with this Circular or that any further Circular was called for. Where a local authority applied for his sanction to a loan and he became aware that they proposed to use foreign materials, he satisfied himself as to the circumstances and conditions of the proposal before the loan was sanctioned. Consent to alterations in a specification had been given in a few cases where a Government grant had been sanctioned and good cause was shown for the use of foreign materials in place of British.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors and some of the sub-contractors for the buildings illustrated in this issue :

St. Helen's Court (for the Anglo-Saxon and Asiatic Petroleum Company), 4-12 Great St. Helens, E.C. (pages 393-395 and Supplement). General contractors, Higgs and Hill, Ltd. Consulting engineer, B. L. Hurst. Quantity surveyor, J. Sprague. Sub-contractors : Greenham Demolition Co., demolition ; Highways Construction, Ltd. (incorporating French Asphalte Co.), asphalt ; London Brick Co. and Forders, Ltd., Fletton bricks ; J. W. Gray and Sons, Ltd., lightning conductors ; Express Lift Co., Ltd., lifts ; Doulton & Co., Ltd., glazed ware ; Rchd. Crittall & Co., Ltd., heating and kitchen equipment ; F. H. Wheeler, electrical work ; Plumbing Guild, Ltd., plumbing ; Henry Hope and Sons, Ltd., windows ; Crittall Mfg. Co., Ltd., windows; South Western Stone Co.. Ltd., Art Pavements and Decorations, Ltd., and Fenning & Co., Ltd., Portland stone ; J. A. King & Co., pavement lights ; Kleine Co., Ltd., flooring ; W. N. Froy and Sons, Ltd., sanitary fittings ; Plastering, Ltd., plaster and grano ; Carter & Co , tiling ; Ragusa Asphalte Co., Ltd., asphalt ; Nicholls and Clarke, Ltd., glazing ; Rippers, Ltd., doors and frames ; Carron Co., Ltd., balustrading ; Marbolith Flooring Co., Ltd., composition flooring ; Wilmer and Sons, Ltd., iron staircase ; Roneo, Ltd., doors ; Braby & Co., Ltd., steel stairs ; Nettlefold and Sons, Ltd., ironmongery ; Parker, Winder and Achurch, Ltd., indicating bolts ; Shaws Glazed Brick Co., Ltd., faience ; J. Starkie Gardner, Ltd., area railings ; J. M. Pirie (London), Ltd., metal grilles ; Mather and Platt, Ltd., sprinkler system ; Carter and Aynsley, Ltd., door furniture ; Inlaid Ruboleum Tile Co., linoleum ; Paint and Cellulose Spraying Co., Ltd., spray painting.

Pilgrim House : First portion of the L.C.C. Tabard Garden Estate (pages 396-397). General contractors, J. E. Billings & Co., Ltd., and Gee, Walker and Slater, Ltd. Sub-contractors : William Smith and Evans, roof tiling ; London Asphalte Co., Ltd., and Ragusa Asphalte Paving Co., asphalt ; Girlings Ferro-Concrete Co., artificial stone ; A. Higginbotham and Sons, plumbing, painting and glazing ; S. W. Farmer and Son, Ltd., wrought iron work ; Dorman Long & Co., Ltd., steelwork ; W. J. Wheeler and Son, plastering ; The Cement Marketing Co., and The Auclaye Brickworks, facing bricks ; The Cement Marketing Co., cement ; The London Brick Co. and Forders, Ltd., flettons.

Animal House at Farm Laboratories, Mill Hill (pages 404-405). General contractors, E. H. Burgess, Ltd. Sub-contractors : Thomas Lawrence and Sons, external bricks ; Grovebury Sandlime Brick Co., Ltd., internal bricks ; British Reinforced Concrete Co., Ltd., reinforced concrete ; J. Jeffreys & Co., Ltd., heating and ventilation ; Tyler and Freeman, Ltd., electric lighting, etc. ; Henry Hope and Sons, Ltd., metal windows ; W. T. Allen & Co., Ltd., metal shelving and pens ; A. C. Golden, asphalt floors ; Lawford Asphalte Co., Ltd., asphalt basement tanking and flat roof ; Adrian Stokes & Co., ironmongery ; F. Braby & Co., Ltd., steamer and channel gratings ; Roberts, Adlard & Co., Ltd., pantiling ; Shanks & Co., Ltd., sanitary fittings ; Merryweather and Sons, Ltd., fire equipment ; Mander Brothers, Ltd., paint ; John Line and Sons, Ltd., distemper ; J. W. Gray and Sons, Ltd., lightning conductors.

House at West Byfleet (page 407). General contractors, Cummins, Ltd.

Other Trade Items

" Spend Wisely for Employment " is the keynote of a leaflet just issued by Messrs. W. H. Gaze and Sons, Ltd. The firm state that to relieve unemployment among skilled men they are offering special rates for any decorations, alterations or repairs put in hand before April 30. Further, they are prepared to defer the account for such work until the end of July. " Prices of materials are," it is stated, " particularly favourable at the moment. Thus by having that job done now you will assist employment and, at the same time, reap the benefit of lower cost."

*

Messrs. Dorman Long & Co., Ltd., request us to state that Mr. Edwin (Eddie) Davies, formerly employed by them in their London offices and previously by Messrs. Bolckow Vaughan & Co., Ltd., is in no way connected with the recent case of alleged forgery at Middlesbrough, in which another employee of the same surname was concerned.

We regret that in the particulars of Messrs. Beale's premises, Bournemouth, illustrated in our issue for March 8, we inadvertently omitted the fact that Mr. H. E. Hawker, of Bournemouth, was the architect for the South block, which was the result of a competition in 1910. Messrs. Hawker, Mountain and Bailey were the architects for the portion added on the West side in 1927. Messrs. Hawker, Mountain and Bailey, and Messrs. North Robin and Wilsdon were associated architects for the additional story over the South block and rebuilding of the North block in 1930.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at FRIERN BARNET: Nine houses, Friars Avenue, for Messrs. H. Ginn and Sons; lay-out of road and sewers, off Friern Park, for Mr. A. J. Spencer; six houses, Queens Avenue, for Mr. C. Haward; 31 houses, Bawtry Road, for Bateman Building Co.

The HAMMERSMITH B.C. has approved revised plans for closing and filling in the Creek at a cost of £13,232.

Plans passed by the LEWISHAM B.C.: Houses, corner of Duncombe Hill and Brockley View, for Messrs. Dunsmore Bros.; 43 houses, Butterfield Street, for New Ideal Homesteads, Ltd.; six houses, Como Road, for Messrs. Montague Holmes and Sons; 228 houses (drainage), Woodstock Road, for Mr. A. J. Butcher; premises, Downham Way, for Messrs. Seth-Smith and Monro.

Plans passed by the POPLAR B.C.: L.C.C. flats, West Ferry Road, for Messrs. Gee, Walker and Slater, Ltd.; L.C.C. flats, High Street, for Messrs. Rowley Bros., Ltd.; warehouse, East Ferry Road, for Mr. H. A. Bower; additions, 37, High Street, for Mr. W. J. Foster.

Plans passed at SANDERSTEAD: Four houses, Addington Road, for Mr. R. V. Tutte; two houses, Old Farleigh Road, for Mr. J. A. Lovell; two houses, Purley Downs Road, for Mr. P. Richardson; two houses, Court Hill, for Messrs. Thomas and Son.

Plans passed by the TOTTENHAM U.D.C.: Factory extension, Union Row, for Messrs. Woolf Bros.; alterations, factory, Vale Road, for Messrs. R. Rosenblatt and Son; bungalow, Commonwealth Road, for Mr. E. W. Allen; reconstruction "Salon Bal," Green Lanes, for Market Estates, Ltd.; three houses, Chandos Road, for Messrs. W. J. Stapleton and Son; alterations, "Plough" public-house, High Road, for Messrs. Truman, Hanbury, Buxton & Co., Ltd.; four houses, Leadale Road, for Messrs. A. and S. Faux; alterations, 165 High Road, for Mr. W. Phelps; factory extensions, Tavistock Road, for Power Flexible Tubing Co., Ltd.; amended scheme, Harringay Market, Green Lanes, for Stephens Amusements, Ltd.; revised plans, 42 houses, Oakdale Road, for Messrs. Walters and Blake, Ltd.; revised scheme, five houses, Northdene Gardens, for Messrs. A. and S. Faux; revised plans, seven houses, Commonwealth Road, for Messrs. C. J. Pilgrim and Sons.

Plans passed by the WESTMINSTER City Council: Frontage line, shops and flats, Marsham Street and Vincent Street, for Mr. G. H. Goldsmith; amended plans for buildings, site of 51-5 Strand, for Messrs. Val Myer and Watson Hart; frontage lines, 10-21 Grosvenor Square, for Mr. G. A. Codd; garages with flats above, Montpelier Terrace, for Messrs. T. P. Bennett and Son; flats, Curzon Street (site of Curzon House), for Mr. J. R. Mactaggart.

SOUTHERN COUNTIES

The BOURNEMOUTH Corporation has received sanction to borrow £13,525 for cliff protection works at Southbourne.

The BRIGHTON Education Committee has approved plans for the erection of extensions at the Whitehawk school, at a cost of £14,550.

Plans passed by the GRAVESEND Corporation: Two houses, Coombe Road, for Messrs. Barton and Burles; two houses, Singlewell Road, for Mr. T. Bennett; six houses, Milton Hall estate, for Mr. S. Bridger; two bungalows, Portland Avenue, for Gravesend Co-operative Society, Ltd.

Plans passed at HERNE BAY: Two houses, Albany Drive, for Messrs. J. Howell and Son; two bungalows, Mayfield Road, for Herne Bay Estates, Ltd.; four houses, Cobblers Bridge Road, and three houses, Greehill Bridge Road, for Messrs. Goodwin and Russell, Ltd.; two houses, Bognor Drive, for Mr. H. E. Puttock; four houses, Westcliff Gardens, for Mr. T. S. Pettman.

The SWANSCOMBE U.D.C. has obtained sanction from the Ministry of Health for the erection of 60 houses.

The WALLINGFORD R.D.C. reports that details have been submitted to it for the development of land at Didcot involving the construction of three new streets.

EASTERN COUNTIES

Plans passed by the CHELMSFORD Corporation: Nine houses, Crompton Street, for Mr. S. W. Stedman; office extensions, Broomfield Road, for Messrs. Christy Bros. and Co., Ltd.; six houses, Swiss Avenue, for Messrs. White and Howard; Catholic school, London Road, for Rev. M. J. Wilson.

The Herts C.C. has approved plans for the enlargement of the HILL END Mental Hospital, so as to provide for 287 extra beds at an estimated cost of £142,500.

The IPSWICH Education Committee proposes to proceed with the erection of the first portion of the new School of Arts and Crafts, at a cost of £11,000.

The Herts Education Committee has approved plans for the erection of a school for 434 children at Parkway, WELWYN GARDEN CITY, at a cost of £12,858.

MIDLAND COUNTIES

Plans passed by the KIDDERMINSTER Corporation: Four houses off Somerleyton Avenue, for Messrs. Towers, Wilson & Co.; alterations, 22, Vicar Street, for Messrs. W. H. Smith and Sons; 13 houses, Highfield Road and Chester Road, for Mr. W. Lindley; two houses, Russell Road, for Mrs. Joseland; four houses, Puxton Lane, for Mrs. R. Hill; two houses, Hurcott Lane, for Messrs. Humphries and Bowdler; alterations and additions, Stour Vale Ironworks, for Messrs. Baldwins, Ltd.

The SMETHWICK Corporation proposes to proceed with the erection of 216 houses on the Warley estate, at a cost of £64,354.

NORTHERN COUNTIES

The BIRKENHEAD Corporation has approved revised plans for the provision of chapels, and a crematorium, at Landican cemetery, at a cost of £20,675.

Plans passed by the BOLTON Corporation: Extensions, weaving shed, Holly Mill, for Messrs. Hill, Davison & Co., Ltd.; two houses off Seymour Road, for Mr. W. E. Yates; laundry, Chorley New Road, for Bolton Nursing Home, Ltd.; works extensions, Windley Street, for Messrs. R. E. Roberts and Son, Ltd.; six houses, Bradford Road, for Mr. R. J. Tyson; four houses, Kingwood Avenue, for Mr. A. S. Woods; four houses, off Green Lane, for Messrs. E. and S. Street, Ltd.; four houses, Old Kiln Lane, for Messrs. Samuel Main & Co.; extensions, Deane Road, for Messrs. E. H. Steele, Ltd.; 30 houses, Devonshire Road estate, for Messrs. A. T. Reynolds & Co.; two houses, Salford Road, for Mr. Maurice Welch; 19 houses, Belmont Road and Thorncliffe Road, for Messrs. F. and H. Douglas.

Plans passed at HYDE: Eight houses, Apethorn Lane, for Mr. H. L. Farrer; lay-out of land, adjoining Apethorn Fold, and the Railway, for Mr. H. L. Farrer; additions, Kingston Mill Yard, for Mr. Ashurst.

Plans passed by the MORECAMBE Corporation: 26 bungalows, Oxcliffe Grove, for Messrs. D. Hunt and Son; shop and petrol station, Lancaster Road, for Mr. J. E. Shaw; four houses, Brook Road, for Messrs. Brook and Kershaw; two houses, Fairfield Road, for Messrs. Swithenbank and Badell; two houses, Brantwood Avenue, for Mr. J. F. Shuttleworth.

The SHEFFIELD Corporation Estates Committee has approved a lay-out plan for the Wybourn Estate extension providing for the erection of 694 houses.

Plans passed by the TYNEMOUTH Corporation: Two houses, Billy Mill Lane, for Mr. J. S. Hurrell; 15 houses, Balkwell Lane, for Mr. W. K. Waite; 11 houses, Balkwell Lane, for Mr. J. F. Charlton; shop and house, Lynn Road, for Mr. W. Moore; 24 houses, Pineapple estate, for Messrs. H. D. Burton, Ltd.; six houses, Mast Lane estate, for Mr. A. E. Brannen; 10 houses, Mast Lane estate, for Mr. J. R. Wallace; alterations, 43-4, Nile Street, for Messrs. Fleming & Co.; 24 tenements, Howden Road, for Mr. A. K. Tasker, on behalf of Square Building Trust; conversion of premises to boxing saloon, Albion Road, for Mr. C. Brannen; 14 houses, Broadway estate, for Messrs. Beautyman and Gray; lay-out of Tynemouth Park estate, for Mr. J. R. Wallace.

The WALLSEND Corporation is seeking permission to complete the development of the Bewicke estate by the erection of a further 96 houses.

Plans passed by the WAKEFIELD Corporation: Alterations and additions, Primrose Tavern, Monk Street, for Messrs. J. Tetley and Son, Ltd.; shop, Stanley Street, shop, Back Mount Pleasant, and house, Balne Lane, for Mr. W. H. Ogden; two houses, Cambridge Street, for Mr. G. Lewes.

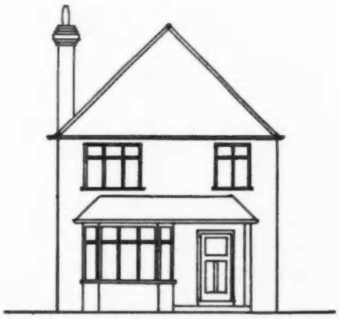


FIGURE 1.

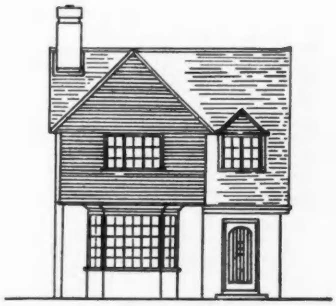


FIGURE 2.

Many houses have very ugly "bays" stuck on, and the roof of the bay is continued to form a shelter over the front door, with the result illustrated in Figure 1. There is a complete lack of balance in this. A suggestion that would cost no more and would provide extra room to the first-floor bedroom is given in Figure 2. The only loss is the protection by the roof outside the front door, and this is surely compensated for by the added attractiveness of the house, and the additional floor space in the bedroom. —G. Langley Taylor in THE PENN COUNTRY OF BUCKINGHAM, *reviewed on page 402.*

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B_3	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A_3	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B_2	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2¼	11
A_2	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LNCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A_3	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2½
General Labourer	,,		1	2½
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, Add	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, Sawn templates	,,	7	6
,, Paving, 2"	F.S.	1	8
,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green ,,	,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings, ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2'–14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"–23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"–23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"–11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		7
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
,, ,, 26 oz. ,, ,, ,,	,,					3¾
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	†3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

† *Ordinary glazing quality* ‡ *Selected glazing quality*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay . . . add	„		3	0
If in underpinning . . . „	„		5	0
Digging, return, fill and ram . . . „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1½" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	„	7	9	1 0	1 3	2 0	—
Boiler screws and unions	„	3 6	4 0	5 6	8 0	—	—
Lead traps	„	—	—	—	7 6	10 0	—
Screw down bib valves	„	7 6	10 6	12 6	—	—	—
Do. stop cocks	„	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

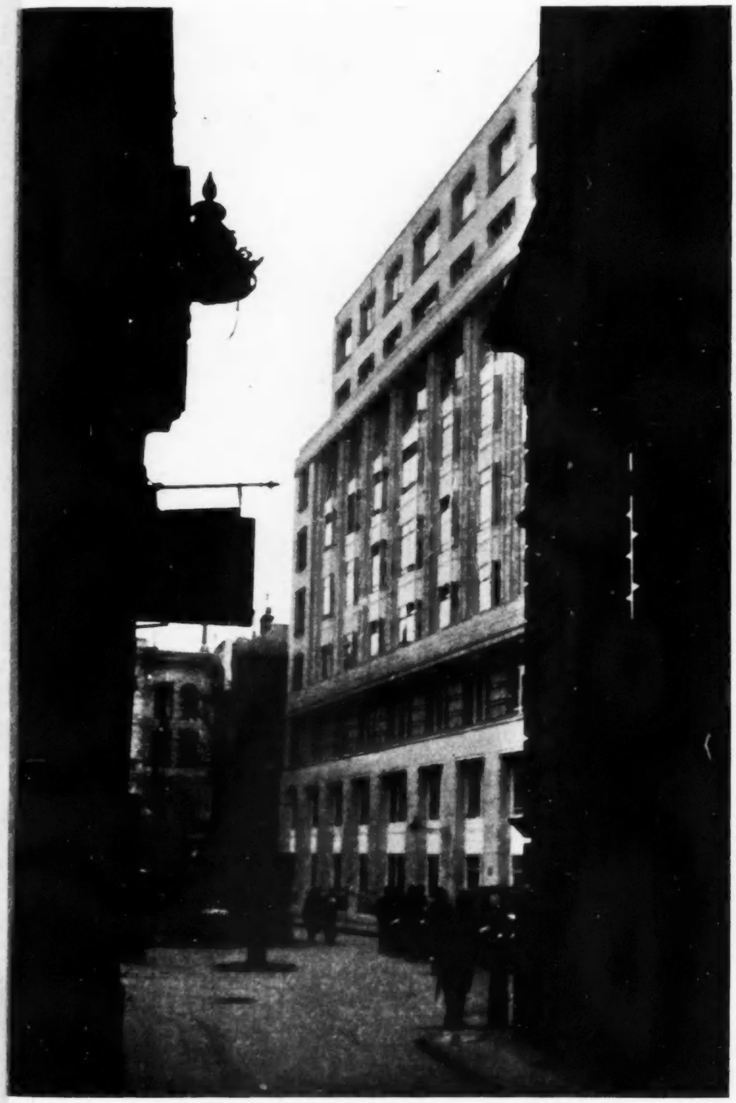
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

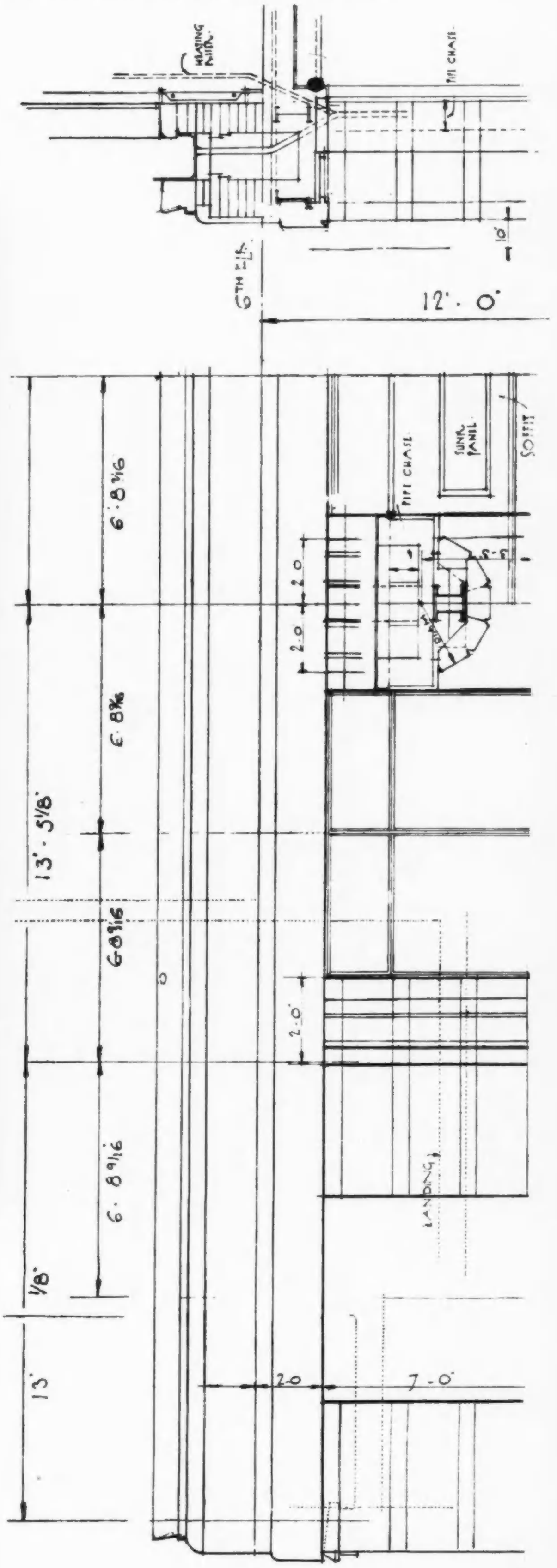
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	0
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	„	2	9

ST. HELEN'S COURT, E.C.

NEW EXTENSION : : BY MESSRS. JOSEPH



THE FRONT TO GREAT ST. HELEN'S

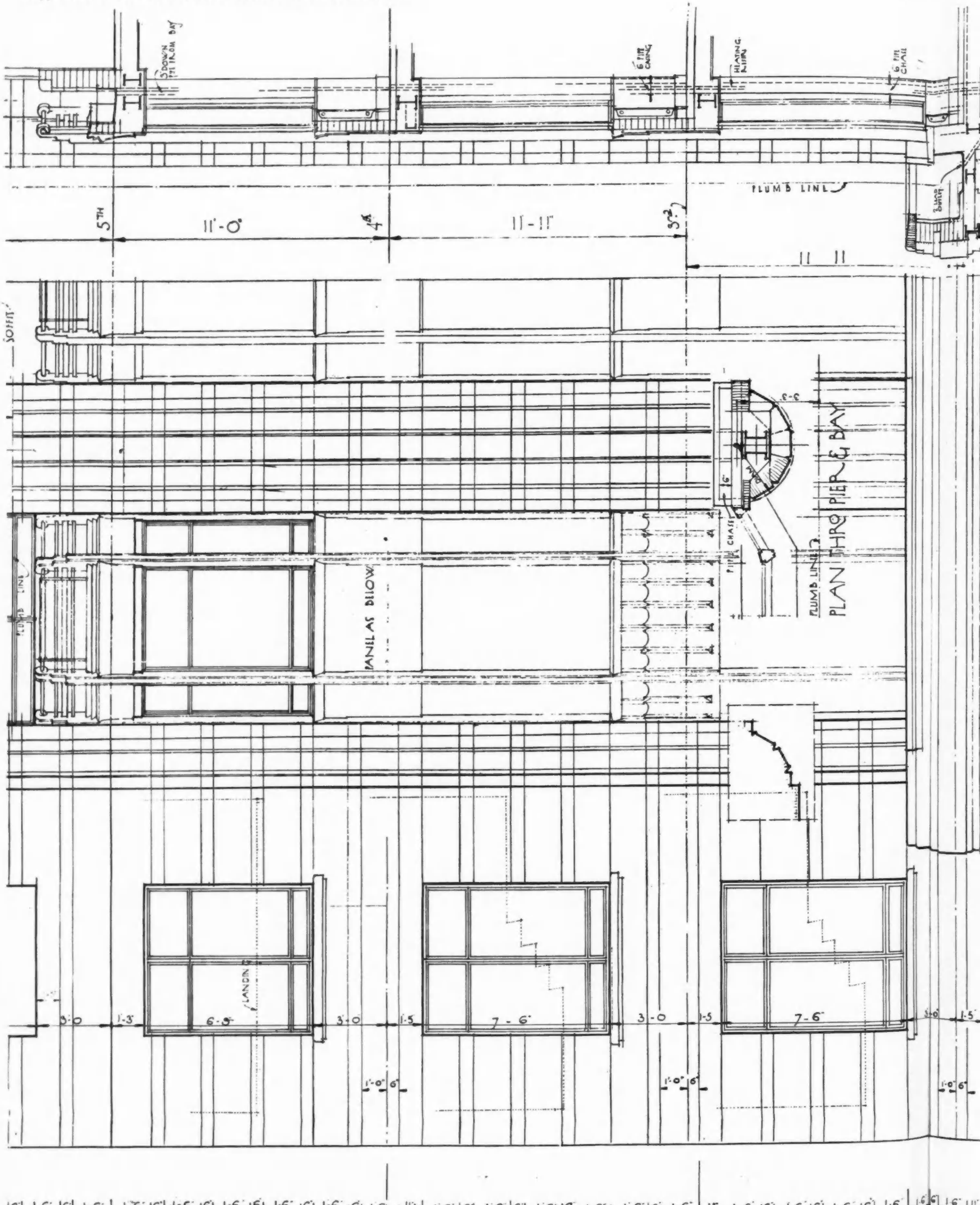

HEATING MAIN
PIPE CHASE
6TH FLR.
10"
12'·0"
PIPE CHASE
SUNK PANEL
SOFFIT
6'·8 9/16
6'·8 9/16
6'·8 9/16
6'·8 9/16
2·0
2·0
2·0
13'·5 1/8"
1/8"
13'
LANDING
2·0
7·0
6" 1·6 6" 1·6" 6" 1·6" 6" 1·6" 6" 1·6

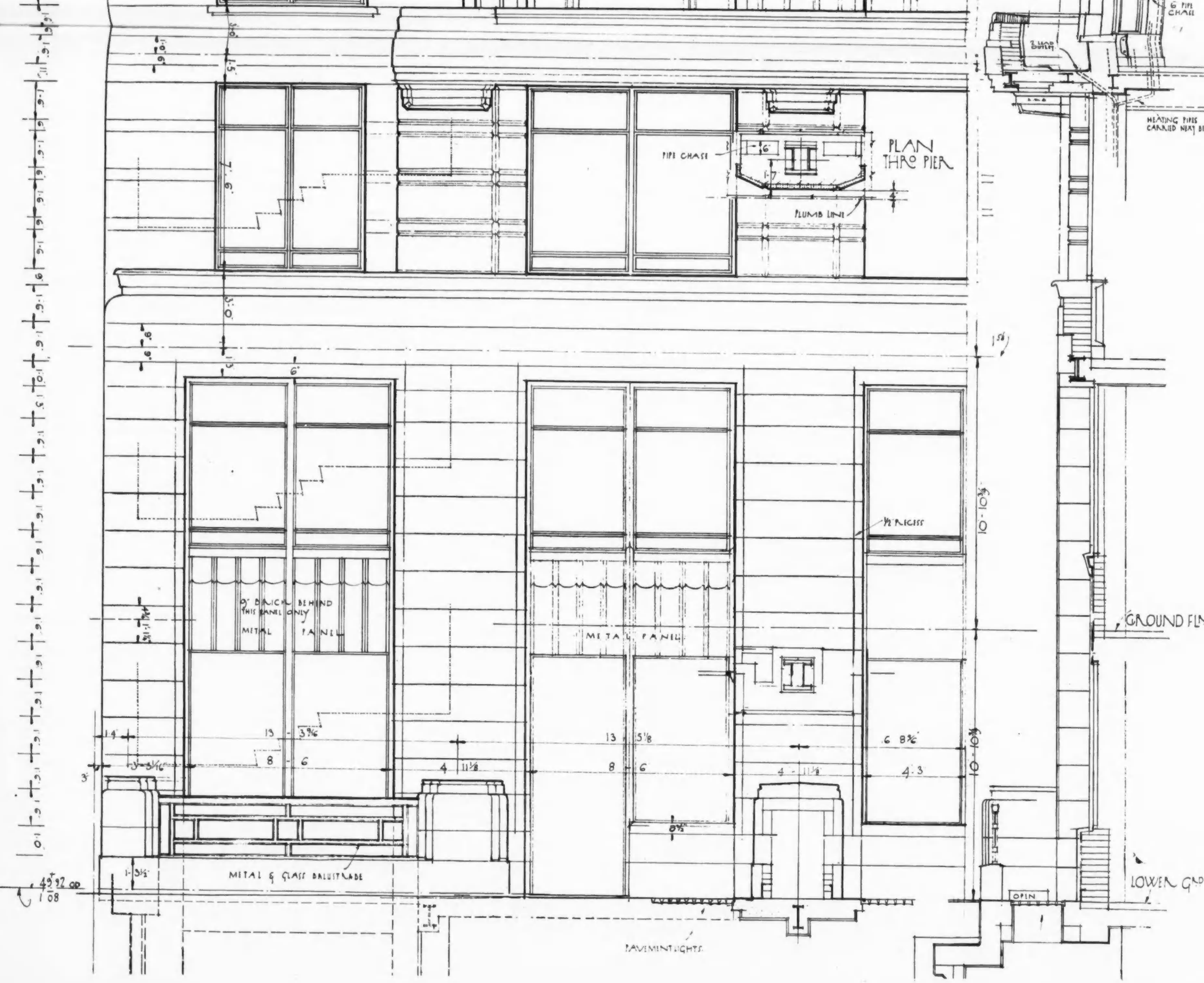
THE building illustrated in this supplement and on pages 393, 394 (plans) and 395 of this issue, is an extension to St. Helen's Court, the headquarters, in the City, of the Anglo-Saxon and Asiatic Petroleum interests. It was designed to accommodate various sections of their staff hitherto housed in separate buildings and to connect up with their adjacent head offices.

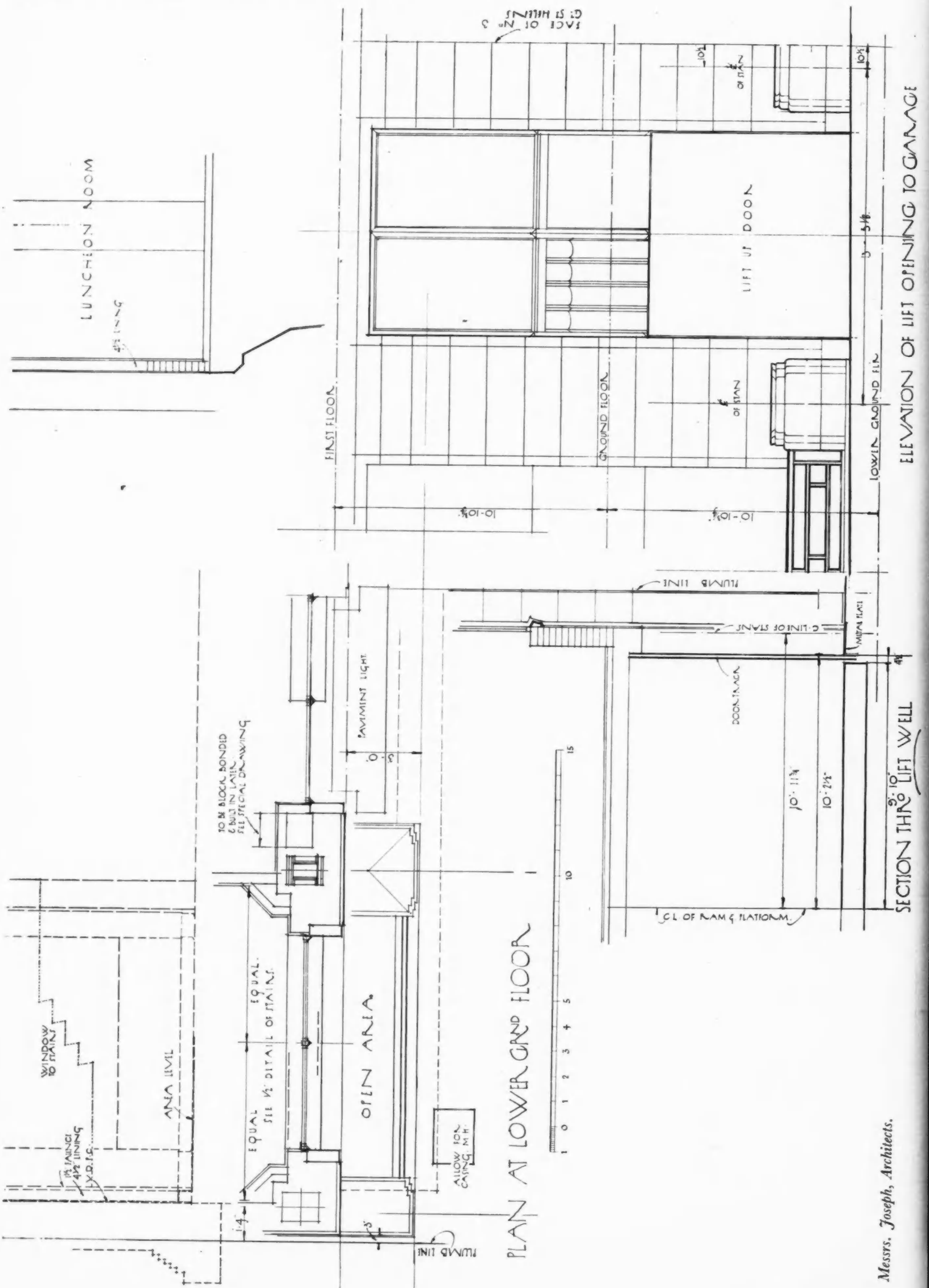
Even on its two free sides the new block faces on to narrow thoroughfares—Great St. Helen's and Crosby Square—and the one entrance from the street is in the latter; access is mainly from the older buildings.

The photograph printed above is taken looking along Great St. Helen's. Accompanying it is the uppermost portion of a reproduction of the large-scale detail drawing of a portion of this front; it is continued overleaf and ends on the last page, at foundation level.

The building, which affords nine floors, is of steel-framed construction, with a retaining wall of reinforced concrete. The elevation here illustrated is built of faience tile slab and block.


3" DOWN PIPE FROM BAY
6" PIPE CASING
HEATING MAIN
6" PIPE CHASE
PLUMB LINE
5TH
11'-0"
4TH
11'-11"
3RD
11' 11"
SOFFIT
PLAN THRO PIER & BAY
PLUMB LINE
PIPE CHASE
PANEL AS BELOW
PLUMB LINE
LANDING
3'-0
1'-3"
6'-3"
3'-0
1'-5
7'-6"
3'-0
1'-5
7'-6"
1'-0" 6"
1'-0" 6"
1'-0" 6"
6" 1'-6" 6" 1'-6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 11" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 11" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 6" 1'-6" 1'-6" 6" 1'-6" 11"


PLAN THRO PIER
PIPE CHASE
PLUMB LINE
HEATING PIPES CARRIED NEXT BEAM
6 PIPE CHASE
½ RECESS
9" BRICK BEHIND THIS PANEL ONLY
METAL PANEL
METAL PANEL
METAL & GLASS BALUSTRADE
PAVEMENT LIGHTS
OPEN
GROUND FLR
LOWER GRD
10 · 10¾
10 · 10¾
7' 6"
3' 0"
13 - 3⅜
8 - 6
13 - 5⅛
8 - 6
4 - 11⅛
4 - 11⅛
6 8⅜
4 · 3
1 - 3½
49.92 OD
1.08


LUNCHEON ROOM
4½" LINING
FACE OF No 3 GT ST HELENS
FIRST FLOOR
GROUND FLOOR
LOWER GROUND FLR
LIFT UP DOOR
3'-5⅛"
10'-10¾"
10'-10¾"
10½
℄ OF STAIR
℄ OF STAIR
PLUMB LINE
C-LINE OF STAIRS
METAL PLATE
DOOR TRACK
10'-11¾"
10'-2½"
4½"
C.L. OF RAM & PLATFORM
3'-10"
PAVEMENT LIGHT
5'-0"
TO BE BLOCK BONDED & BUILT IN LATER SEE SPECIAL DRAWING
EQUAL
EQUAL
SEE ½" DETAIL OF STAIRS
OPEN AREA
AREA LEVEL
WINDOW TO STAIRS
1½ FACINGS 4½ LINING Y.D.P.C.
ALLOW FOR CASING M.H.
1'-4"
5"
PLUMB LINE
1 0 1 2 3 4 5 10 15

ELEVATION OF LIFT OPENING TO GARAGE

SECTION THRO' LIFT WELL

PLAN AT LOWER GRND FLOOR

Messrs. Joseph, Architects.

SECTION THRO LIFT WELL

ELEVATION OF LIFT OPENING TO GARAGE

AREA PER PERSON FOR LIFTSCAGES.

PASSENGER LIFTS :

Allow 2½ - 3½ sq. ft per person in the best type of office building etc.
Allow 2 sq. ft per person in department Stores & where large cages are used.

AVERAGE SIZES OF PASSENGER LIFTS :

Persons carried	Rated load.	Car Switch Control	Push button Control.
4.	6 cwts	4' 0"	3'6"
6.	8 cwts	4' 4"	4'0"
7.	10 cwts	4' 8"	4' 4"
8.	12 cwts	5' 0"	4'8"
11.	15 cwts	5' 6"	5'0"
14.	20 cwts	6' 0"	5'6"

Sizes given are clear inside dimensions.

MINIMUM SIZE FOR PASSENGER LIFT (for private house) :
2 persons 2'9" × 2'9"

SERVICE LIFTS :

Main service lift to an apartment house block (for furniture etc) 6'0" × 6'0" inside the cage.
Service lifts to flats (for general household services) from 1'6" × 1'6" to 2'3" × 2'3" inside the cage. Average 2'0" × 1'6" × 2'0" high.

HAND-OPERATED FOOD LIFTS :

		wellhole required
1'6" × 1'6" × 2'0"	high	2'1" × 1'11"
1'9" × 1'9" × 2'0"	high	2'4" × 2'2"
2'3" × 2'3" × 2'0"	high.	2'10" × 2'5"

ELECTRICALLY OPERATED FOOD LIFTS :

2'6" × 1'6" × 2'3" high.
1'6" × 1'6" × 2'3" high.

BIN LIFTS :

(dependent on number of bins & size of bin to be used) approx. 3'0" × 3'0" clear inside for one bin.

FOOD TROLLEY LIFTS :

(dependent on number of trolleys & size of trolley to be used) approx. 4'0" × 3'0" clear inside for one trolley.

HOSPITAL BED LIFTS :

for general cases 7'2" × 4'8" well hole required approx : 8'6" × 6'0"
for plaster cases 8'6" × 7'0" well hole required approx : 10'0" × 8'6"

GARAGE LIFTS :

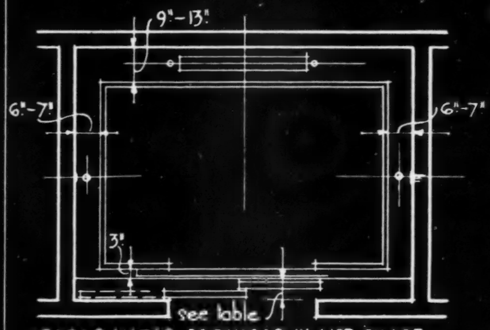
for one car : 20'0" × 10'0" well hole required approx. 21'6" × 11'6"

SPEED OF LIFTS :

Speeds commonly used for various types of lift (London).

	Travel 30'0"	60'0"	above 60'0"
Passenger lifts :			
Car switch control	160 - 200	200-350	300 - 450 + feet per minute.
Push button control	120 - 150	150 - 200	
Service lifts :		100 ±	120 - 150
½ to 3 cwts.		100 ±	120 - 150
Goods lifts :			
5 to 30 cwts.		100 ±	150 ±
40 cwts		100 ±	100 ±

Garage car lift :
30 - 40 feet per minute
Hospital bed lifts :
100 - 200 feet per minute.



CLEARANCES REQUIRED IN LIFT SHAFT

Minimum thickness for wood doors 1¾"
Minimum thickness for metal doors 1¼"

HEIGHTS REQUIRED above & below overdriven lifts.

Requirements vary with type of lift, speed, capacity & equipment.
for passenger lifts up to 400 F.P.M. allow 16' to 23' from the topmost landing served to the under side of the Machine room roof ... & allow 4' to 5' from the lowest landing served to the bottom of the pit.
for passenger lifts above 400 F.P.M. allow up to 27' & up to 10' respectively

for Service lifts allow 11' to 12'
for Goods lifts allow 16' to 18'

SPACE REQUIRED FOR LANDING DOORS (from Messrs Waygood-Otis Ltd)	Wood doors hand open'g & closing	Wood doors hand open'g Self clos'g.	Wood doors Pneumatic Operated	Metal doors hand open'g self closing	Metal doors Pneumatic Operated
Single sliding door	5"	4"	4"	3½"	3½"
Centre opening sliding door	4½"	4"	4"	3½"	3½"
Two speed sliding door	·	6"	6"	5"	5"
Three speed sliding door	·	8"	8"	6½"	6½"

N.B. Messrs Waygood-Otis recommend only metal doors for pneumatic operation.

INFORMATION SHEET : LIFTS : GENERAL SIZES, STANDARD CLEARANCES ETC.
SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 10 •

LIFT SIZES, ETC.

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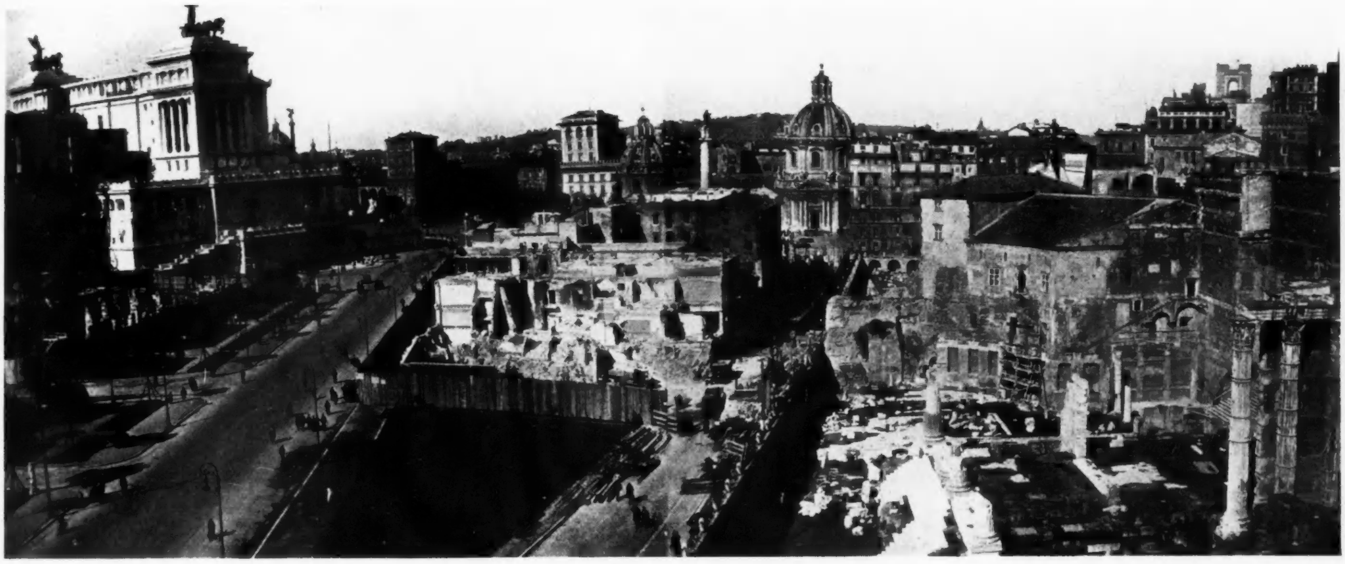
EIGHT classes of lifts are enumerated in this week's Information Sheet, which sets out in tabular form the dimensions of the cages, etc., in common use. Certain of the data in regard to clearances are reproduced by permission of the manufacturers, Messrs. Waygood-Otis, Ltd.

The following is a list of the subjects previously issued :—

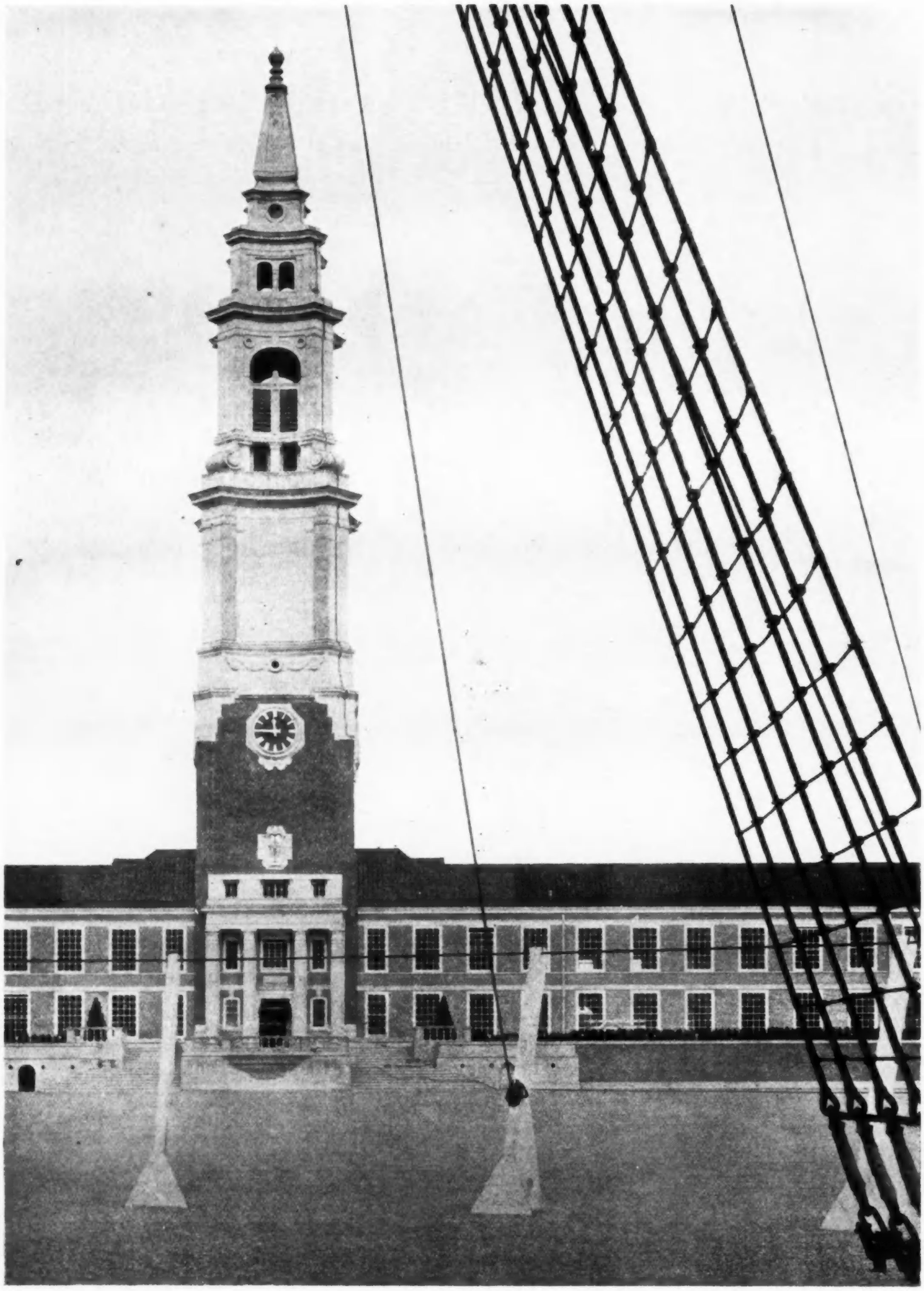
1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.

A MODERN AVENUE THROUGH ROME
WITH A MORAL FOR TOWN-PLANNERS



AN alternative title for this photograph might be "Where there is a will there is a way." On the left runs the new through avenue that links the Vittorio Emanuele Monument, seen at its end, with the Colosseum, situated in a direction behind the camera. In the foreground another new road is in progress. Side by side with its construction steps are being taken, in accordance with the comprehensive and far-reaching planning scheme for the whole area of Rome, to demolish obsolete tenements and to open out, reconstruct and isolate buildings of ancient Rome, such as Trajan's Forum, seen on the right, and the Trajan Column, in the centre of the picture. To the left of this Column are two square-towered mansions: the farther one is now the town residence of Mussolini.

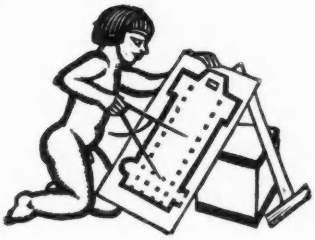
In two days' time the Town and Country Planning Act comes into force. What is being done in Rome can and should be done in London and our other large cities. As Mr. Longstreth Thompson said, at the dinner held by the Town Planning Institute, on Friday last: "Whatever the difficulties, London must *have a plan."*



THE ROYAL HOSPITAL SCHOOL, HOLBROOK, SUFFOLK

By Buckland and Haywood

On Wednesday of last week, boys of the Royal Hospital School marched for the last time out of their quarters at Greenwich. When they return from Easter leave they will take possession of the new school premises at Holbrook, Suffolk, illustrated and described on pages 425-9 of this issue. The above view shows the spire above the assembly hall, with the saluting base at its foot, seen through the ratlines of the rigged mast on the parade ground.



NO HAWKERS NO CIRCULARS —NO ARCHITECTS

THROUGH consecutive leading articles during the last few months we have dealt as fully as our space would allow with the main problems which face the nation on what the Russians would call its Building Front.

A brief summary would read like this :

- State of Unplanning in London.
- Necessity of a London Plan.
- Argument for a National Planning Board.
- Unplanning.
- A typical case of unplanning—Carlton Gardens and Carlton House Terrace.
- Planning for Housing.
- Possibilities of the Housing Corporation and Dangers of the Building Societies.
- Results of Unplanning—Unemployment.
- Solution to Unemployment through Public Works.

It must be fairly clear to all but the most uncompromising disciples of *laisser faire* that some form of organized planning is called for today if society is to be rebuilt from the ruins of the war. Nor need those who advocate planning on a national scale be afraid of being pointed out rudely as dirty Bolshevists, for was not the Conservative Party the apostle of planning within the Empire long before Lenin or Stalin were heard or thought of?

The fact is planning—on a national scale—is actually going on in England to an extent which few people realize. There is planning in towns, in regions, planning in electricity, planning in wireless, in wheat, in steel, planning even in pigs.

But it is obvious, indeed inevitable, that the fruits of this work will not be apparent for some years, and that a larger conception of planning will only be evoked gradually from the success of a number of minor ventures, converging on one point.

What, then, of the architect? If the modern world is to be planned he must be its key man. Is he the key man of the present world? Certainly not. It may be an exaggeration to say that the architect is encouraged to do nothing more than " play " with thousand-pound houses or stick the Queen Anne into engineers' drawings, but the fact remains his serious function as the planning member of the community is consistently ignored.

We have lately advocated the spending of hundreds of millions of pounds on public works. How much of this work will go through the hands of architects? When the Glasgow Institute of Architects put forward the suggestion that an Advisory Committee on Amenity should work in conjunction with the Corporation in preparing the new Glasgow town planning scheme, the city engineer, Mr. Thomas Somers, objected that co-operation would serve no useful purpose since the replanning of Glasgow *was an engineering job*—and an engineering job no doubt it will be !

Nor are public works the only field in which the architect is consistently ignored. The Government and the Building Societies have recently entered into a conspiracy to promote a vast housing campaign. The results remain to be seen, but the campaign is *calculated* at least to provide housing on an unprecedented scale. Has the architect been consulted? The answer is he hasn't even been considered, and this despite the fact that it is his influence which is responsible for whatever standard there is in houses of the present day.

This situation may or may not be partly the fault of the architect. We do not presume to say. What we do say is that it isn't good enough. It raises the paramount question of what is in the interest of the community.

If the planning mind is needed today, as it is, then it is essential in the public interest that architects should *not* stand by idly watching while borough surveyors and engineers commit crimes in the name of public works. It is essential that architects should not passively endure a vast new jerry building campaign financed by the Building Societies.

Failing a constructive planning policy, we say that one condition at any rate should be observed. To avoid in these new works the worst effects of unplanning, some sort of control by architects should be aimed at. And if the work will not come to the architects then the architects must go to the work.

Later in the year we hope to return to the question of the borough surveyor and public works. The housing campaign is, however, the question of the moment. " The twentieth-century small house," says a well-known architect in *What is to be Done about this?* on page 430, " is a mass-produced product." How to provide a mass-produced product cheaper and better than the speculative builder—this is the architects' immediate problem. We propose, therefore, to review in a series of articles the whole *scena* of the small house.

We believe that many architects will welcome this attempt, humble though it is, to survey a ground that may be ripe for " architectural development."

NOTES & TOPICS

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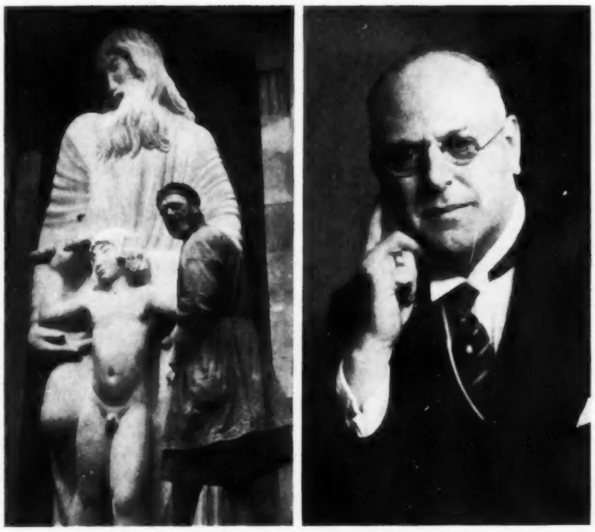
IN the House of Commons on Wednesday last Mr. George Gibson Mitcheson, Unionist Member for South West St. Pancras, asked the Home Secretary if he would instruct the police to compel the directorate of the B.B.C. to remove immediately the statue recently placed over the front entrance of Broadcasting House as being objectionable to public morals and decency.



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THE ARCHITECTS' DIARY

Wednesday, March 29

R.I.B.A., 9 Conduit Street, W.1. Third of a series of lectures on Where Londoners Live. "Where Londoners Play." By P. Morton Shand. 6 *p.m.*

NEW HOMES FOR OLD EXHIBITION. At 24 Grosvenor Place, S.W.1. Exhibition entitled: "Housing: The Present Opportunity." Until April 1. 11 a.m. to 7 p.m. 11 *a.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—XI." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat *Chambers, School Lane, Liverpool.* "Tradition and Modernism in Architecture." By A. J. Penty, L.R.I.B.A. 6 *p.m.*

IDEAL HOMES EXHIBITION. At Olympia, West Kensington, W. Until April 29. 10 a.m. to 10 p.m.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "Ecclesiastical Architecture in the Present Age." By N. F. Cachemaille-Day, M.A., A.R.I.B.A. 8 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Colour Harmony." By J. Littlejohns, R.I. 8 *p.m.*

LIGHTING SERVICE BUREAU. At 2 Savoy Hill, W.C.2. "The Lighting of Theatres and Cinemas." By R. Waldo Maitland. Discussion to be opened by G. Grey Wornum, F.R.I.B.A. 7 *p.m.*

Thursday, March 30

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W. "Report on the Excavations at Hembury, Devon." By Miss Dorothy Liddell, F.S.A. 8.30 *p.m.*

ESSEX, CAMBRIDGE AND HERTS. SOCIETY OF ARCHITECTS. At Anderton's Hotel, Fleet Street, E.C. Joint Meeting with the Eastern Federation of Building Trades Employers. 12.30 *p.m.*

DESIGN AND INDUSTRIES ASSOCIATION. At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. "The Artist and Industrialism." By Eric Gill. 8.15 *p.m.*

Saturday, April 1

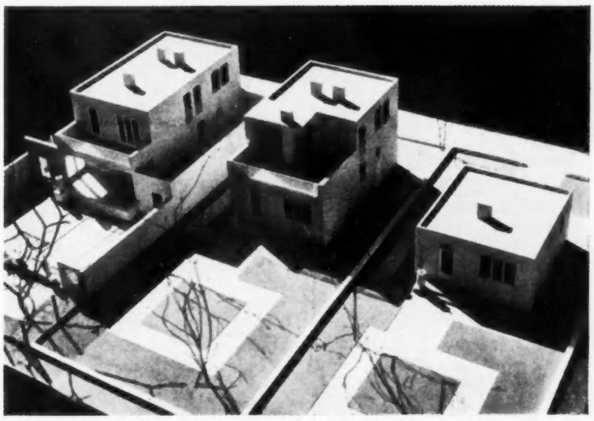
Sunrise 5.34 a.m. Sunset 6.34 p.m.

Monday, April 3

R.I.B.A., 9 Conduit Street, W.1. General Meeting. Presentation of the Royal Gold Medal to Sir Charles Peers. 9 *p.m.*

Tuesday, April 4

ARCHITECTS AND SURVEYORS APPROVED SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. Annual General Meeting. 6.30 *p.m.*



Model of a "unit house" in all three stages of its expansion: Leopold Ponzen's contribution to the competition sponsored by the Vienna Municipality.

UNIT HOUSES IN VIENNA

The last number of *The Studio* reproduced designs for unit houses entered for a competition sponsored by the Vienna Fair and other bodies, including the Vienna Municipality. No building might cost more than £150, exclusive of furnishings and foundations, and no completed unit might exceed 40 square metres in area.

*

Leading Austrian architects competed, and the results, as I expected, showed that clever planning and simple forms make architecture out of the smallest bungalow.

*

One of the important problems solved was the question of expansion from a very small unit to meet an owner's growing needs and rising income. The accompanying photograph shows how essential unity is preserved throughout three stages of expansion.

*

L.M.S.: A SUGGESTION

A prominent invitation has been widely circulated to the general public to send their suggestions for bettering the service of the L.M.S. to Mr. Ashton Davies, the commercial manager.

*

I have a suggestion. I have a lot of suggestions. Speaking architecturally, I might once have said that I had a grievance. But, answering so polite a request, I would suggest, first of all, that it would be a service to the public if the management would reorganize outdoor advertising, for, as an ordinary traveller, I find it tiresome to be solicited from every wall, staircase, platform, embankment, bridge and every other unoccupied space by tinplate bagmen.

*

I am out to travel and enjoy myself. But only when the train is moving, and then not quite entirely, can I escape this menace. I try to catch the name of a station and see nothing but BOVRIL. On the platform I want the booking office, but can scarcely spot it among the BEERS and INKS, OIL ENGINES, etc.

*

The practice brings in an income, but it is barbarous, quite barbarous. And, moreover, it is not necessary, for it is subject to arrangement, localization. Further, it is inefficient and unworthy of a public utility company. There, that is my suggestion.

ASTRAGAL

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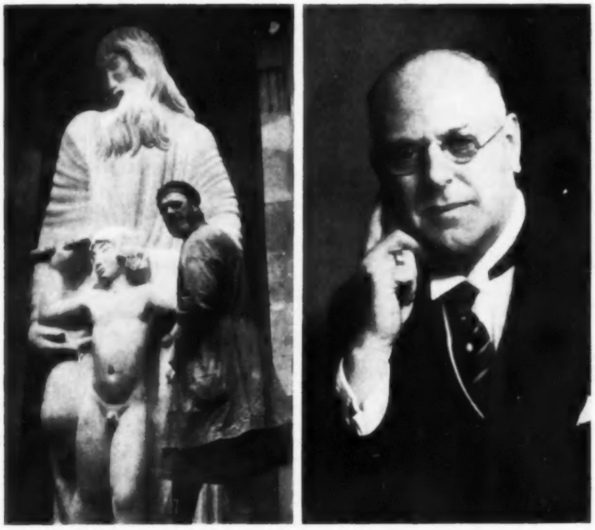

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NEW HOMES FOR OLD EXHIBITION. At 24 Grosvenor Place, S.W.1. Exhibition entitled: "Housing: The Present Opportunity." Until April 1. 11 a.m. to 7 p.m. 11 *a.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. "Roman Architecture—XI." By Sir Banister Fletcher, PP.R.I.B.A. 6 *p.m.*

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat *Chambers, School Lane, Liverpool.* "Tradition and Modernism in Architecture." By A. J. Penty, L.R.I.B.A. 6 *p.m.*

IDEAL HOMES EXHIBITION. At Olympia, West Kensington, W. Until April 29. 10 a.m. to 10 p.m.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "Ecclesiastical Architecture in the Present Age." By N. F. Cachemaille-Day, M.A., A.R.I.B.A. 8 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Colour Harmony." By J. Littlejohns, R.I. 8 *p.m.*

LIGHTING SERVICE BUREAU. At 2 Savoy Hill, W.C.2. "The Lighting of Theatres and Cinemas." By R. Waldo Maitland. Discussion to be opened by G. Grey Wornum, F.R.I.B.A. 7 *p.m.*

Thursday, March 30

SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W. "Report on the Excavations at Hembury, Devon." By Miss Dorothy Liddell, F.S.A. 8.30 *p.m.*

ESSEX, CAMBRIDGE AND HERTS. SOCIETY OF ARCHITECTS. At Anderton's Hotel, Fleet Street, E.C. Joint Meeting with the Eastern Federation of Building Trades Employers. 12.30 *p.m.*

DESIGN AND INDUSTRIES ASSOCIATION. At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. "The Artist and Industrialism." By Eric Gill. 8.15 *p.m.*

Saturday, April 1

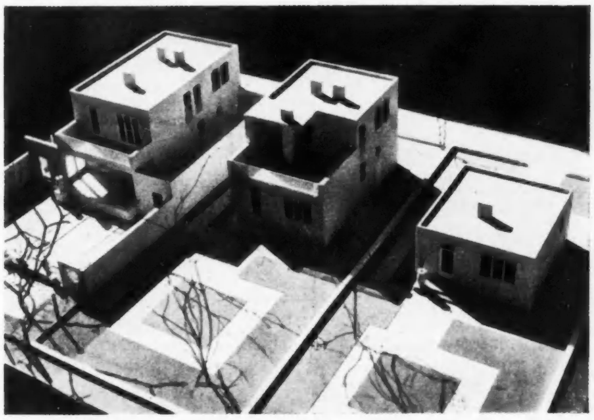
Sunrise 5.34 a.m. Sunset 6.34 p.m.

Monday, April 3

R.I.B.A., 9 Conduit Street, W.1. General Meeting. Presentation of the Royal Gold Medal to Sir Charles Peers. 9 *p.m.*

Tuesday, April 4

ARCHITECTS AND SURVEYORS APPROVED SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. Annual General Meeting. 6.30 *p.m.*



Model of a "unit house" in all three stages of its expansion: Leopold Ponzen's contribution to the competition sponsored by the Vienna Municipality.

UNIT HOUSES IN VIENNA

The last number of *The Studio* reproduced designs for unit houses entered for a competition sponsored by the Vienna Fair and other bodies, including the Vienna Municipality. No building might cost more than £150, exclusive of furnishings and foundations, and no completed unit might exceed 40 square metres in area.

*

Leading Austrian architects competed, and the results, as I expected, showed that clever planning and simple forms make architecture out of the smallest bungalow.

*

One of the important problems solved was the question of expansion from a very small unit to meet an owner's growing needs and rising income. The accompanying photograph shows how essential unity is preserved throughout three stages of expansion.

*

L.M.S. : A SUGGESTION

A prominent invitation has been widely circulated to the general public to send their suggestions for bettering the service of the L.M.S. to Mr. Ashton Davies, the commercial manager.

*

I have a suggestion. I have a lot of suggestions. Speaking architecturally, I might once have said that I had a grievance. But, answering so polite a request, I would suggest, first of all, that it would be a service to the public if the management would reorganize outdoor advertising, for, as an ordinary traveller, I find it tiresome to be solicited from every wall, staircase, platform, embankment, bridge and every other unoccupied space by tinplate bagmen.

*

I am out to travel and enjoy myself. But only when the train is moving, and then not quite entirely, can I escape this menace. I try to catch the name of a station and see nothing but BOVRIL. On the platform I want the booking office, but can scarcely spot it among the BEERS and INKS, OIL ENGINES, etc.

*

The practice brings in an income, but it is barbarous, quite barbarous. And, moreover, it is not necessary, for it is subject to arrangement, localization. Further, it is inefficient and unworthy of a public utility company. There, that is my suggestion.

ASTRAGAL

NEWS

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POINTS FROM THIS ISSUE

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The slums are our most crying social evil. Their removal is our chief social need 434
Since the beginning of the year the Minister of Health has sanctioned revenue-producing schemes to a total of £3,900,000 442

●

ART AND INDUSTRY

Mr. Eric Gill, whose sculpture of Prospero and Ariel over the main entrance to Broadcasting House was the subject of a question in the House of Commons last week, is to lecture on "The Artist and Industrialism" at a meeting of the Design and Industries Association, tomorrow, March 30. Mr. Frank Pick will preside.

AN "EXCITING" EXHIBITION

The Exhibition of Industrial Art in Relation to the Home, which is to be held at Dorland Hall, Lower Regent Street, S.W., from June 20 to July 12, was the subject of an article by Professor C. H. Reilly, in *The Manchester Guardian* for Tuesday of last week.

> The news [he writes] that there is to be a serious exhibition in London in the summer of manufactured articles of everyday use, chosen by competent people for their fitness for purpose and for the imaginative use of the materials of which they are made, is exciting. It shows that the long Victorian, Edwardian and Georgian sleep with regard to the products of our factories is at last coming to an end.
>
> Our manufacturers should watch everywhere, so it seems to me, what the younger artists are doing in architecture, painting and sculpture so as to get some inkling of the spirit of this great modern movement. Once they get into sympathetic relation with it they will employ the right designers and give them, what is equally important, the right instructions. An exhibition such as is proposed, where the manufacturer is only allowed to show his really good modern things, is not only going to be an exciting event but a necessary one. . . . The Gorell Commission said it was most essential, and that the Government ought to pay for it. The Government, however, will do nothing of the kind, though the Board of Trade offers its blessing. Hence it is especially good to know that private individuals, and those best qualified, have taken on the task.

The list of subscriptions received by the Public Relations Committee of the Building Industries National Council up to Monday last amounted to £2,396/0/10. Among the firms that have recently contributed to the fund are the following: Manchester Brick Mfrs. Assn. Ltd., £105/0/0; Roper, Son and Chapman, £1/1/0; Gross, Sherwood and Heald, Ltd., £3/3/0; Nottingham and District Brick Mfrs. Assn., £25/0/0; and Frederick Braby & Co., Ltd., £5/5/0. Subscriptions should be addressed to the Honorary Treasurer, Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

PROFESSOR REILLY'S SUCCESSOR

At a meeting of the Council of the University of Liverpool held on Tuesday of last week, Associate Professor L. B. Budden, M.A., F.R.I.B.A., Senior Lecturer in Architecture, was appointed to the Roscoe Chair of Architecture as from October 1 next, in succession to Professor C. H. Reilly, who is retiring from the Chair at the end of the current session.

MODERN DECORATION

Mr. Howard M. Robertson, F.R.I.B.A., lecturing to the Incorporated Institute of British Decorators on "The Trend of Modern Decoration" on Thursday last, pointed out that extremists of the modern school are as tyrannical as are the traditionalists. Liberty to express his ideals, either in "Craftsman" design, or in design for mass production, must always remain the right of the designer, and he must fight fearlessly to maintain it. All tendencies are permissible, provided that design is good and the laws of harmony are respected.

Professor Lionel Budden, F.R.I.B.A., who has been appointed Roscoe Professor of Architecture at Liverpool University in succession to Professor C. H. Reilly.

SPOLIATION OF WESTMINSTER

At yesterday's meeting of the L.C.C. the Council's Town Planning Committee expressed its perturbation by proposals to erect tall office buildings on two sites near the Houses of Parliament: that of a terrace of eighteenth-century houses in Abingdon Street, and that opposite the Ministry of Health, facing Parliament Square. They asked the Council to agree to the preparation of a town planning scheme for this area.

IDEAL HOME EXHIBITION

The *Daily Mail* Ideal Home Exhibition, held at Olympia, will be opened to-day at 11.30 a.m. by Mrs. Stanley Baldwin. It will remain open until April 29 between the hours of 10 a.m. and 10 p.m.

TOWN PLANNERS AT DINNER

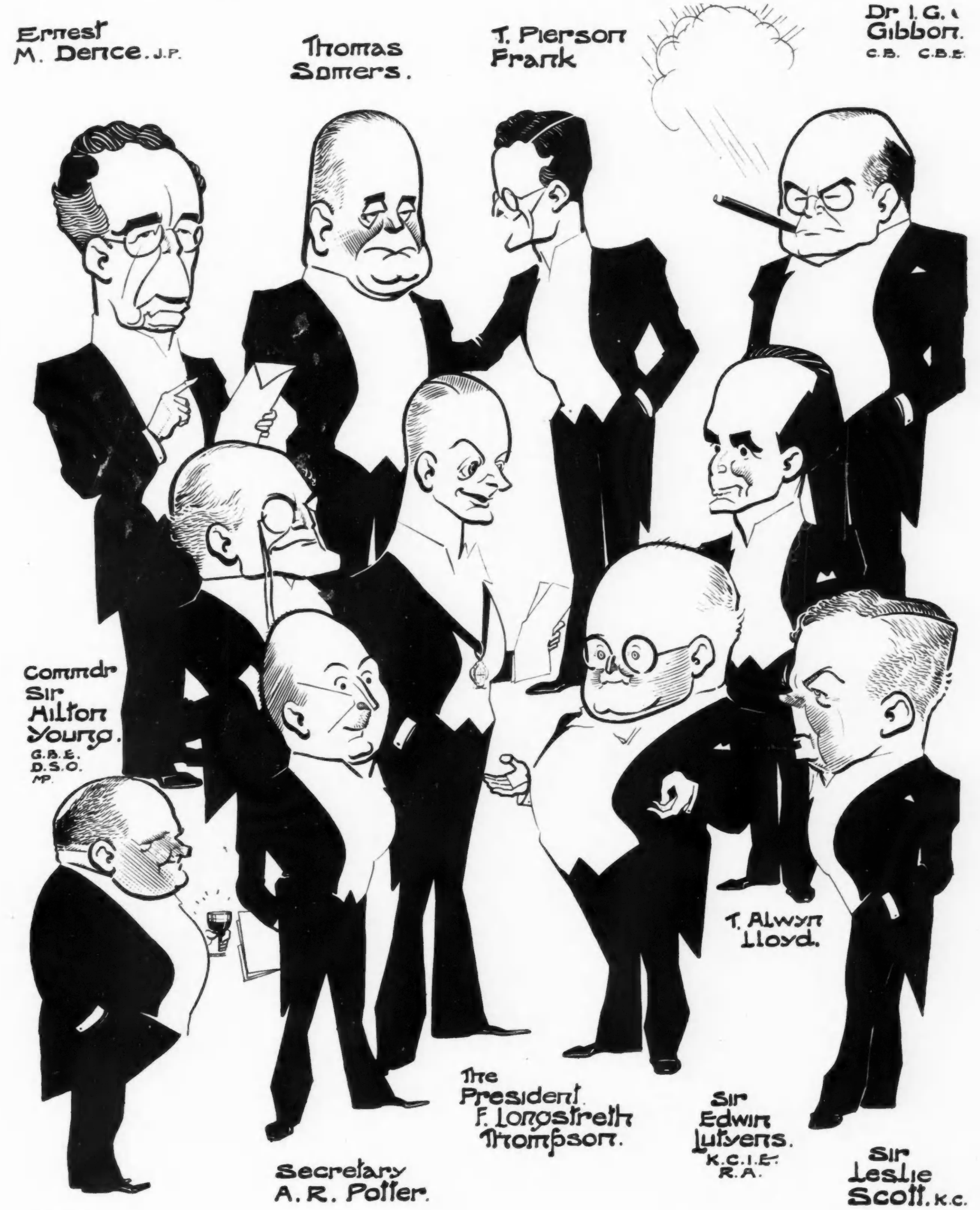
A dinner to the Rt. Hon. Sir Hilton Young, G.B.E., D.S.O., M.P. (Minister of Health) was given by the Town Planning Institute at the Savoy Hotel on Friday last. About 100 members and guests were present, with Mr. F. Longstreth Thompson, B.SC., A.M.INST., C.E. (President) in the chair.

Mr. Thompson, proposing the toast of "Town and Country Planning," urged the necessity of embarking with the least possible delay upon the preparation of a planning scheme for London. He said :

> With a partner who, for the last ten years, has been engaged, with the help of many experts and a large staff, upon the preparation of a plan for New York, I should be the last to underrate the magnitude of the task or the nature of the difficulties to be surmounted. But of this I am convinced—that, whatever the difficulties, London *must* have a plan. She is already suffering from an acute form of elephantiasis, with the attendant symptoms of the arteries, congestion of the lungs and many other functional disorders. Unless the symptoms are skilfully diagnosed and proper treatment prescribed without delay, the patient's health and activity will inevitably deteriorate and in the end she will suffer the fate of the prehistoric monsters, who perished miserably because their tiny brains proved unequal to the task of controlling their overgrown and ungainly bodies.
>
> On all hands there is a demand for big-scale planning; in the relationship between nations; in finance; in industry; in all human activities.

[*Continued on page* 422

THE TOWN PLANNERS' DINNER


Ernest M. Dence. J.P.
Thomas Somers.
T. Pierson Frank
Dr I. G. Gibbon. C.B. C.B.E.
Commdr Sir Hilton Young. G.B.E. D.S.O. M.P.
T. Alwyn Lloyd.
The President. F. Longstreth Thompson.
Sir Edwin Lutyens. K.C.I.E. R.A.
Secretary A. R. Potter.
Sir Leslie Scott. K.C.
S. A. Kelly.

On the facing page is a report of the dinner to Sir Edward Hilton Young (Minister of Health), given by the Town Planning Institute on Friday last. The above sketches are by Fred May.

NEW THAMES BRIDGES

At Chiswick. Architect : Sir Herbert Baker, R.A. Engineer : Alfred Ryland, C.B.E. Resident Engineer : Major J. F. MacLachlan, M.I.C.E. It is expected that the bridge, which has cost approximately £220,000, will be opened in June.

At Hampton Court. Architect : Sir Edwin Lutyens, R.A. Engineer : W. P. Robinson, M.I.C.E. The bridge is of reinforced concrete, faced with brick and stone, and is estimated to cost just over £200,000. It is expected to be opened some time between the end of April and June.

Indeed, I suppose there has never been a period in the world's history when the need for clear thinking, good organization and close co-operation was so insistent and at the same time so universally recognized.

The Town and Country Planning Act does not give us everything for which we hoped, but we believe it will facilitate both the conservation and the development of our most important asset—the land—and it is the determination of our members who are preparing planning schemes in all parts of the country to do their utmost to further its successful application.

We are met this evening for the double purpose of celebrating the coming into operation of the Act and of expressing our most sincere thanks to Sir Hilton Young for the devotion he has shown to the cause of town and country planning.

The Minister of Health, in response, said he thought the Town and Country Planning Act was the equal of the Bill. " I say—and confidently—don't you be afraid. Wait and see ; April the First has not yet come ! " Discussing the new idea of national planning, as distinguished from regional planning, he desired to keep an open mind. He continued :

There is still so much work to do which is more appropriate, and can be more adequately covered by regional planning, that we ought to get on with this before we occupy our minds with bigger interests, which may not be of the same practical utility at the present moment. The task of the day is the application of our minds and foresight to the regional and local problem. In the coming year or two we have got to justify this big idea of the utility of planning, embodied in the new Act, to the commonsense of the country. It is going to be a trying time. I am quite confident that there is present in our minds in approaching the task the vast practical importance and significance of enlisting as co-operators the big forces of organized industry in this country.

It is of vital importance to make our country a richer, finer and better land. Without direction it is impossible to contemplate the disorder, ugliness and discomfort that might rule in our towns of the future ; and it is impossible to contemplate continued destruction of our countryside. In the new Act we have acquired powers to protect our country from such disfigurement.

The Rt. Hon. Sir Leslie Scott, K.C., proposing the toast of " The Local Authorities of Great Britain," said :

In a recent speech our chief guest of tonight said he thought that " there is nothing more deadening to national life than over-centralization. Local Government gives the fertilizing factor of diversity. By maintaining the healthy difference between town and town and countryside and countryside it maintains vigour in national character."

That sentence happily recognizes the two main divisions into which the whole business of successful planning naturally falls—on the one hand, the adaptation, both in plan and execution, to local conditions, and, on the other, coordination at the centre to ensure that the parts shall be so correlated as to produce a coherent whole—a whole which will satisfy the needs of the nation, just as the individual plans satisfy the needs of the locality.

We are not a very logically-minded nation, and in our political advancement we do not start with general principles and work down to the particular, but rather undertake the particular task first and let history gradually elucidate the general principle out of the particular. Such is the history of planning in England. And for the same reason we often confer statutory powers which mean something much better in practice than anyone could suspect from the words of the enabling Act ; because our administrators, central and local, do have regard to those general political principles, unmentioned in the Act, which have become our second nature, and which in our more exalted moments we call the British Constitution !

The Act which, with political effrontery, we propose to bring into force on All Fools Day, is essentially one of the kind of Statutes I have in mind. It can be made to work well, if we work it well, bearing in mind its main purposes, taking count of the main conditions of our national life to which we have to apply it, and thinking out for ourselves the main principles which ought to guide us—principles consistent with, but unexpressed in, the Act.

Mr. Ernest M. Dence, J.P. (Chairman of the L.C.C.), responded.

R. I. B. A.

PRESENTATION OF GOLD MEDAL

The eighth general meeting of the Institute will be held on Monday next at 9 p.m., when Sir Charles Reed Peers, C.B.E., F.R.I.B.A., will be presented with the Royal Gold Medal. A collection of photographs, etc., of work carried out by the Department of Ancient Monuments and Historic Buildings under the direction of Sir Charles Peers will be on exhibition in the Meeting Room on the evening of the presentation of the Medal, and will remain open daily between the hours of 10 a.m. to 8 p.m. (Saturday, 10 a.m. to 5 p.m.) until April 12, inc.

WHERE LONDONERS WORK

Mr. Darcy Braddell, F.R.I.B.A., on Wednesday last give the third of a series of public lectures which the R.I.B.A. are sponsoring for the purpose of interesting Londoners in the architecture of their own city.

He began by explaining that, as his time was very limited, he would have to confine the scope of his subject within very strict limitations, so he was going to conduct what he described as an architectural Cook's tour among the great office buildings, banks and such like institutions. He led his audience down Whitehall, showing various Government offices, new and old, then embarked them on one of Mr. A. P. Herbert's proposed new waterbuses, making as he did so a spirited plea for the use of the Thames as London's natural highway, whence the majesty and pageantry of London could be seen to its best advantage. The city was then shown in a series of photographs depicting the headquarters of the great banks, and the enormous change which has taken place in recent years in the neighbourhood of the Royal Exchange was vividly realized. The tour, which is cordially recommended to every lover of London to make for himself, ended with the return via the Strand to Trafalgar Square.

The lecturer laid great insistence on the significance of the plan in all architecture, a significance which is not always appreciated by a lay public, and added much interest to his lantern slides by showing the plans of the buildings they concerned.

THE SOANE MEDALLION AND THE TITE PRIZE

In the United Kingdom 114 students took part in the preliminary competition for the Soane Medallion, and 241 students took part in the preliminary competition for the Tite Prize.

The following students have been selected to take part in the final competitions:

THE SOANE MEDALLION: Messrs. J. C. Clavering, Dudley L. Couves, F. A. C. Maunder, and Wilfred J. Scott (Armstrong College School of Architecture, University of Durham, Newcastle); W. E. Cousins and Glyn Roberts (Liverpool School of Architecture, University of Liverpool); F. Norman James (Architectural Association, London); J. C. B. Price (Bartlett School of Architecture, University of London); C. E. Westmoreland (Royal Academy School of Architecture).

THE TITE PRIZE: Messrs. H. T. Cadbury-Brown, Herbert Tayler, Edward V. Tibbits and (Miss) M. J. Blanco-White (Architectural Association, London); Adam Paton (Glasgow School of Architecture); P. M. Barnes (Department of Architecture, University of Sheffield); John W. Davidson (Department of Architecture, University of Sheffield); Philip B. Dunthorne (School of Architecture, The Polytechnic, Regent Street, London); Harry Gibberd (Birmingham School of Architecture); H. I. Gordon (Liverpool School of Architecture, University of Liverpool); Arthur D. Kirby and Paul K. Pope (Royal West of England Academy School of Architecture, Bristol); David W. Roberts (Welsh School of Architecture, The Technical College, Cardiff); and Bernard G. White (School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea).

THE TOWN AND COUNTRY PLANNING ACT

THE
PROTECTOR?

[*By* THOMAS SHARP,
Author of "Town and Countryside"]

ON Saturday next, April 1, the Town and Country Planning Act, 1932, comes into being. The vicissitudes which have attended its birth are well known.

Begotten on the Mother of Parliaments by a public grown restive and melancholy in its helpless watching of the ruin of a treasured heritage, the first period of its gestation promised well for the ultimate delivery of a fine upstanding Protector of Amenity. In the darkness of the night of National Crisis, however, the villains of the piece, in the shape of vested interests, got to work to procure an abortion. For a time it seemed as though they would be wholly successful; but happily in the end they failed—and now the Protector is with us.

To greet him with a fanfare of trumpets would, perhaps, be unwise, for it is obvious that though the abortionists did not quite kill the incipient Protector, their hobnailed boots did at least do something towards maiming him. It will almost certainly prove that as a result of their operations he is a little weak in the head and rather dithery at the knees. Exactly how weak and how dithery, time only will prove. So we had better reserve our plaudits for a later date, and, instead of sounding the brassy welcome of "See the Conquering Hero Comes," we should scrape on our doubtful fiddles the more sombre exhortation of "Rescue the Perishing, Care for the Dying."

But, at any rate, this is the only Protector we have got, so we must align ourselves behind his flag.

Exactly what powers have been given to this Protector that were denied his predecessor, The Town Planning Act of 1925?

To begin with, his terms of reference are a complete reorientation of those of the earlier Act. The 1925 Act was a *Town* Planning Act, which related, "for the purpose of securing proper sanitary conditions, convenience and amenity, to land which appears likely to be used for building purposes." Under this Act many hapless planners attempted to preserve Rural England by zoning it for houses. And naturally they didn't succeed. But the Act of 1932 is a *Town and Country* Planning Act which may be applied (by kind permission of the Minister of Health) to any land, whether urban, suburban or rural, for the purpose of regulating or *prohibiting* development. So now perhaps the countryside may be preserved by zoning it *against* housing. And in that there is at least a chance of success.

How extensive the success will be, or how great the failure, will depend in a large part upon the Minister (or should we say Ministry?) of Health, who has had thrust upon him enormous powers of veto which it will require the wisdom of a Solomon to wield properly; for he and he only is to be the judge of whether it will be "expedient" to prepare a scheme for this, that and the other piece of land in every corner of the country.

Success or failure will also depend on the efficiency of the local authorities—but though discretion is no strong point in the make-up of the present writer, the little that he has is sufficient for him to resist any temptation to describe what may be expected from the local authorities.

A further power given by the new Act is that which extends the application of planning to the built-up areas of existing towns, which, like rural areas, have hitherto been excluded from the operation of the Acts. Here again the Ministry has a complete and incontestible power of veto against any proposed scheme.

And what is to be the effect of all this on architectural standards and practice?

One thing at least is obvious. The Act consolidates the sacrosanctity of the garden-city ideal. Semi-detachment, twelve-homes-per-acre and to-blazes-with-civic-design is the principle that is still to apply to suburban areas.

Will it apply even to the centres of existing towns? Will our old towns be re-created in the image of Letchworth?

Perhaps even that: for an example a few yards away from where these words are being written shows how deeply the garden-city ideal of housing has sunk into the popular mind. Here in the very centre of the ancient clustering compactness of Durham city, under the very shadow of the Cathedral, an old medley of jumbled (and admittedly insanitary) property has been cleared away for—what? For a group of modern town buildings? No: for a fiddling little estate of garden-city houses, where even shops stand in semi-detachment!

That, perhaps, shows the garden-city mentality at its worst: generally speaking, we have not universally sunk so far as that—yet. And if we can keep our heads clear and not indulge too much in romanticism, the powers of the new Act, in such things as zoning for use, the introduction of new street lines, and so on, may serve us very well for town improvements.

But even if large-scale architectural composition in street and square is to continue to be prohibited, will the new Act do anything towards raising our national standards of architecture and assuring that the architectural character of the future English scene will not at any rate be so gross as that of the present, and the immediate past?

Perhaps it will. Planning schemes under the new Act may contain provisions for "regulating the design and external appearance of buildings," which probably everyone will admit is definitely to the good, though many may be doubtful as to the best procedure for obtaining this regulation.

Are local authorities under the Act to be the final arbiters of taste in their localities? No, they are not. Every scheme containing a provision for the regulation of design must also provide that a person aggrieved by a decision of a local authority may appeal either to a court of summary jurisdiction or to a tribunal constituted for the purpose. Further, as a recent Ministry of Health circular* points out, the powers are not to be used dogmatically, but only "for preventing what may reasonably be regarded as 'outrages,' buildings out of keeping with their surroundings and an offence to the neighbourhood." As such they should be useful, particularly when used in co-ordination with the R.I.B.A. and C.P.R.E. panels that are already fairly widely established. But as to whether they will be used at all or used wisely we shall have to wait and see.

As, indeed, we shall have to wait to see the outcome of the whole Act. In waiting, however, it will be as well to remember the relationship between the scales of expectation and disappointment.

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*Circular 1305. There is also a Summary of the Act issued by the Ministry. Both are excellent and valuable documents, and are obtainable from H.M. Stationery Office, price 4d. each.

Changes of Address

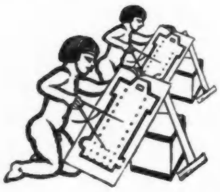
Mr. L. Sylvester Sullivan, F.R.I.B.A., has removed his offices to Southern House, Cannon Street, E.C.4. Telephone No.: Mansion House 4964.

Messrs. Adams, Thompson and Fry have removed their offices to 58 Victoria Street (opposite the Army and Navy Stores), S.W.1. Telephone No.: Victoria 7087 (as before).

Mr. H. Douglas Kidd, A.R.I.B.A., has removed his offices to 12 Buckingham Street, W.C.2. Telephone No.: Temple Bar 8522.

Mr. T. Graham Crump, L.R.I.B.A., has removed his offices to 45 High Street, Croydon. Telephone No.: Fairfield 4974 (as before).

COMPETITION



NEWS

FLATS FOR STOKE NEWINGTON B.C.

The following architects have been invited by the Stoke Newington B.C. to submit designs for the flats to be erected on the Lordship Road site: Mr. W. R. Davidge; Messrs. Hobden and Porri; Messrs. Howes and Jackson; Mr. E. M. Joseph; Messrs. E. C. P. and H. Monson, and Mr. Granville Streatfield (in conjunction with Mr. Mathew J. Dawson, F.R.I.B.A.) Sir Robert Tasker is to adjudicate; and the premiums are £250, £100 and £50 for first, second, and third places, respectively.

HORNSEY: NEW TOWN HALL

The Borough of Hornsey propose to hold a competition for a new Town Hall, and the President of the R.I.B.A. has appointed Mr. C. Cowles-Voysey, F.R.I.B.A., to act as Assessor. Conditions have not yet been drawn up.

SLOUGH: NEW COUNCIL OFFICES

The Slough Urban District Council have decided to hold an open competition in connection with the new Council Offices which are to be erected at Salt Hill. Premiums of £150, £100 and £50 will be offered, and Mr. H. S. Goodhart-Rendel, F.R.I.B.A., has been appointed by the President of the R.I.B.A. to act as Assessor. Conditions have not yet been drawn up.

COMPETITION FOR A DESIGN IN GRANITE

In connection with the competition for a façade for a newspaper office in granite, organized by the Architectural Association on behalf of the Cornish Quarry Masters' Association, the award of the prize (£50) will be announced and a criticism will be given at 6 p.m. on Tuesday, April 4, at the Architectural Association.

Refreshments will be served from 5.30 p.m.

The competition drawings will be on exhibition at the A.A., 34-36 Bedford Square, from after the announcement of the award until Saturday, April 8, from 10 a.m. to 7 p.m.

LAY-OUT OF PROMENADE

The Council of the Borough of Douglas, Isle of Man, propose to carry out a large widening scheme in connection with the Promenade, and have decided to hold a competition for the lay-out of the front, including ornamental gardens. They propose to offer premiums of £100, £50 and £25. Conditions have not yet been drawn up.

Competitions Open

March 31.—Competitions for Cottages to be built at an economic rent, organized by the Building Centre, 158, New Bond Street, W.1, from whom full conditions are obtainable. Premium: £100.

April 13.—Design of a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

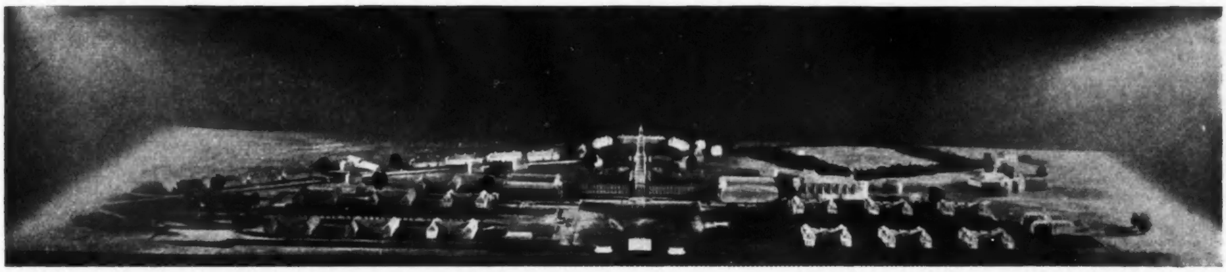
ON THE AIR

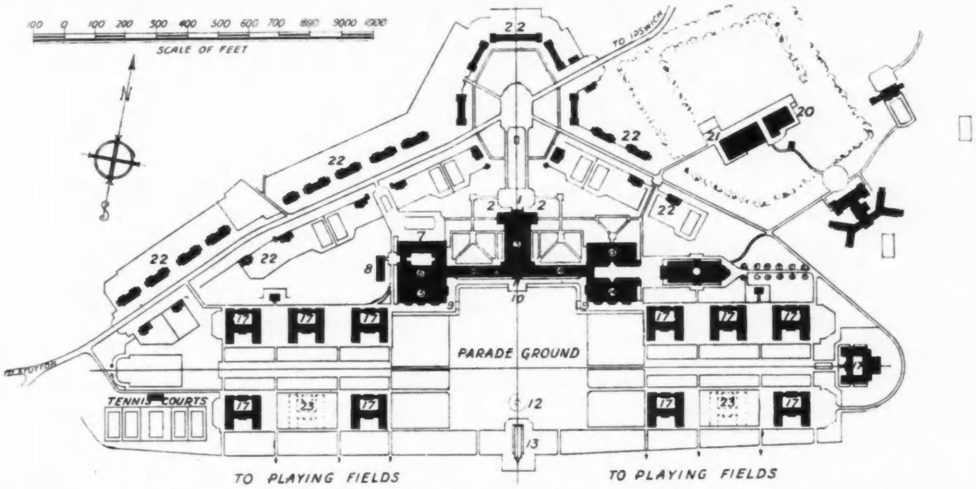
A series of broadcast talks is to be given by Commander Stephen King-Hall and Mr. N. F. Hall, Head of the Department of Economics at University College, London. The series will begin on Monday, April 3, and will run until July 3, with the exception of three Mondays: April 24, and May 8 and 15.

The series is in preparation for the expected World Economic Conference, and is intended to answer some of the questions, in part philosophic, in part political and in part economic, which arise following the present world crisis.

Commander King-Hall is taking the attitude of a representative of the man in the street and the woman in the house and will cross-examine Mr. Hall on the various issues which arise. A preliminary talk was given on March 15, when Commander King-Hall invited listeners to send him questions which they would like him to bring up.

ROYAL HOSPITAL SCHOOL, HOLBROOK

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SCALE OF FEET
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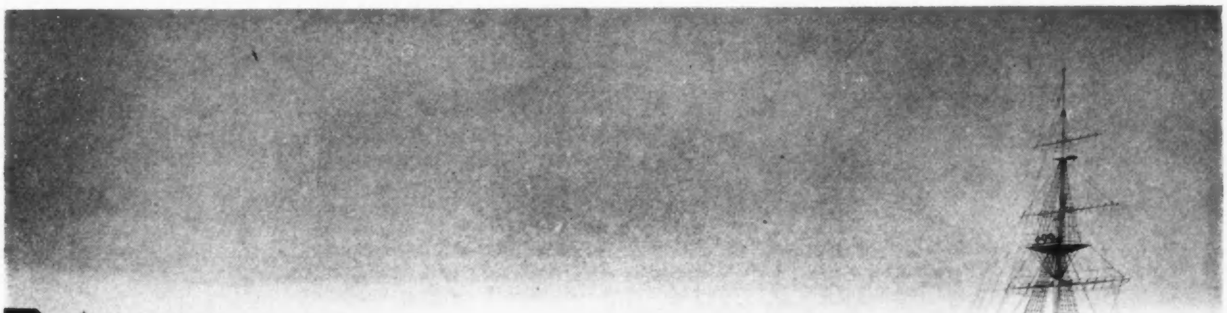
PARADE GROUND
TENNIS COURTS
23
12
13
TO PLAYING FIELDS
TO PLAYING FIELDS

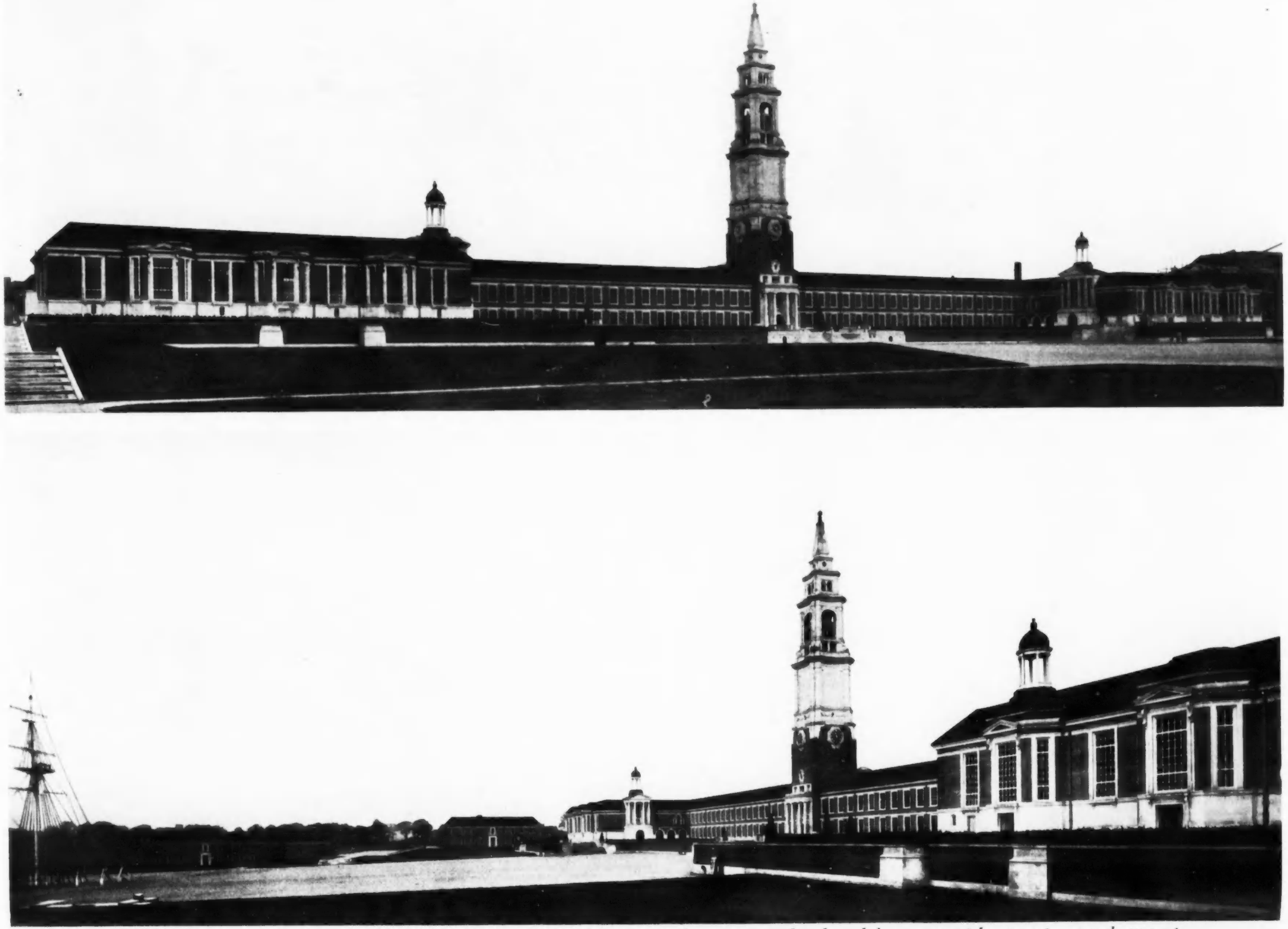
On this page are given general views of the buildings at Holbrook, Suffolk, to which the Royal Hospital School has been removed from Greenwich; more detailed photographs follow. Above are shown the layout model and its key-plan, in which the following are the references :—

1. Entrance.
2. Administration.
3. Assembly Hall.
4. Classrooms.
5. Dining Hall.
6. Kitchens.
7. Stores and Bakery.
8. Manual Instruction.
9. Terrace.
10. Saluting Base.
11. Tower.
12. Rigged Mast.
13. Rifle Range.
14. Gymnasium.
15. Swimming Bath.
16. Chapel.
17. Hostels.
18. Infirmary.
19. Supt.'s House.
20. Laundry.
21. Engineering Block.
22. Residences.
23. Future Hostels.

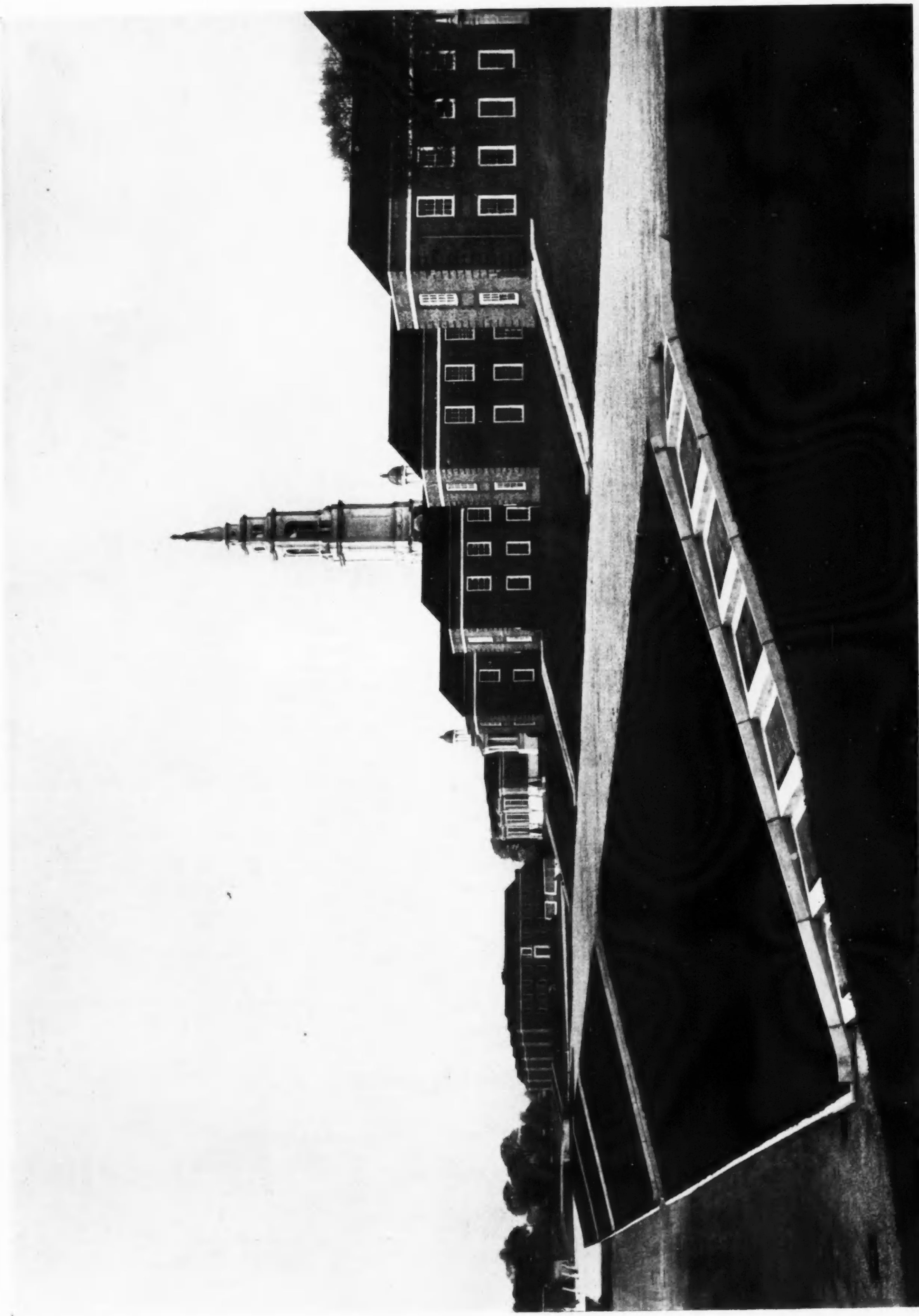


DESIGNED BY BUCKLAND AND HAYWOOD

ROYAL HOSPITAL SCHOOL, HOLBROOK : BY BUCKLAND AND HAYWOOD

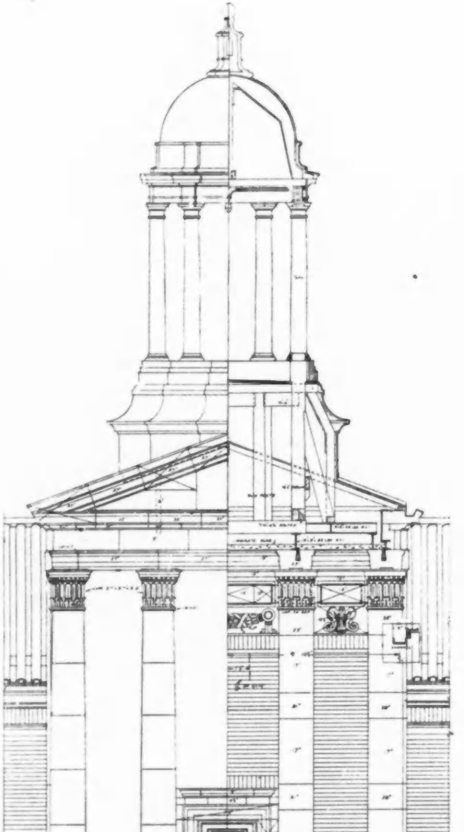


Two views of the central block and the parade ground, looking north-east, and west.



Five of one row of six hostel blocks; the aspect is the same as in the lower view above.

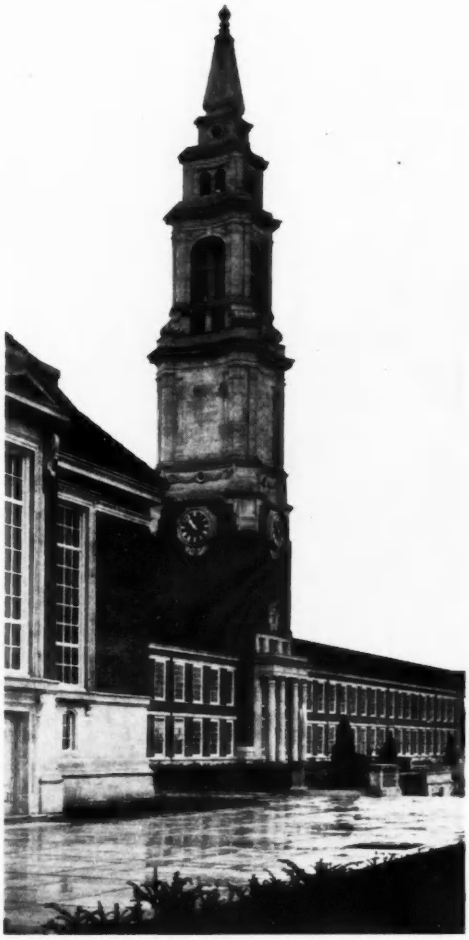
ROYAL HOSPITAL SCHOOL, HOLBROOK,

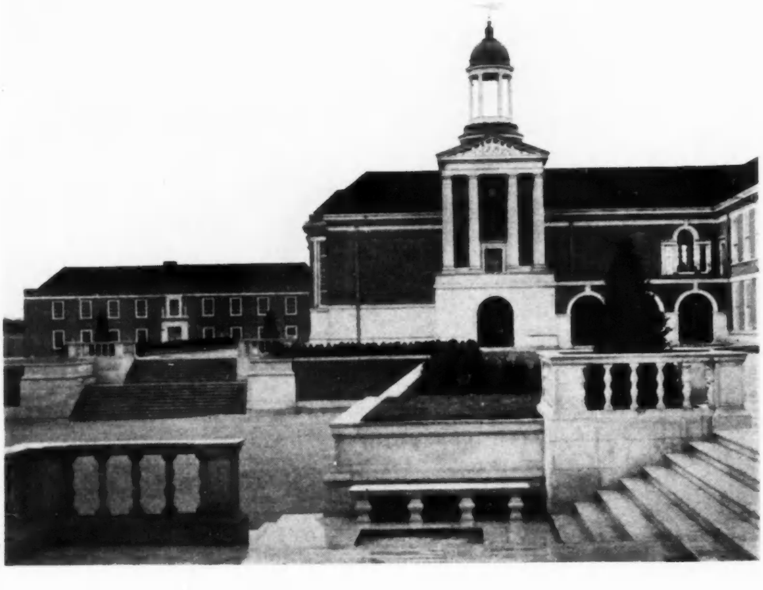


The site is a very large one, not far short of a mile long from end to end, and the furthest of the hostels, some of which, to accommodate eighty boys apiece, are illustrated on the preceding pages, is nearly half a mile from the assembly hall, which lies behind the spire in in the adjacent view of the classroom blocks, taken from the terrace. The lower photograph, of the dining hall, with, beyond it, one of the hostels, also shows some of the stone-balustraded terracing that has been carried the length of the south front. The drawing is of the cupola of the dining hall block.

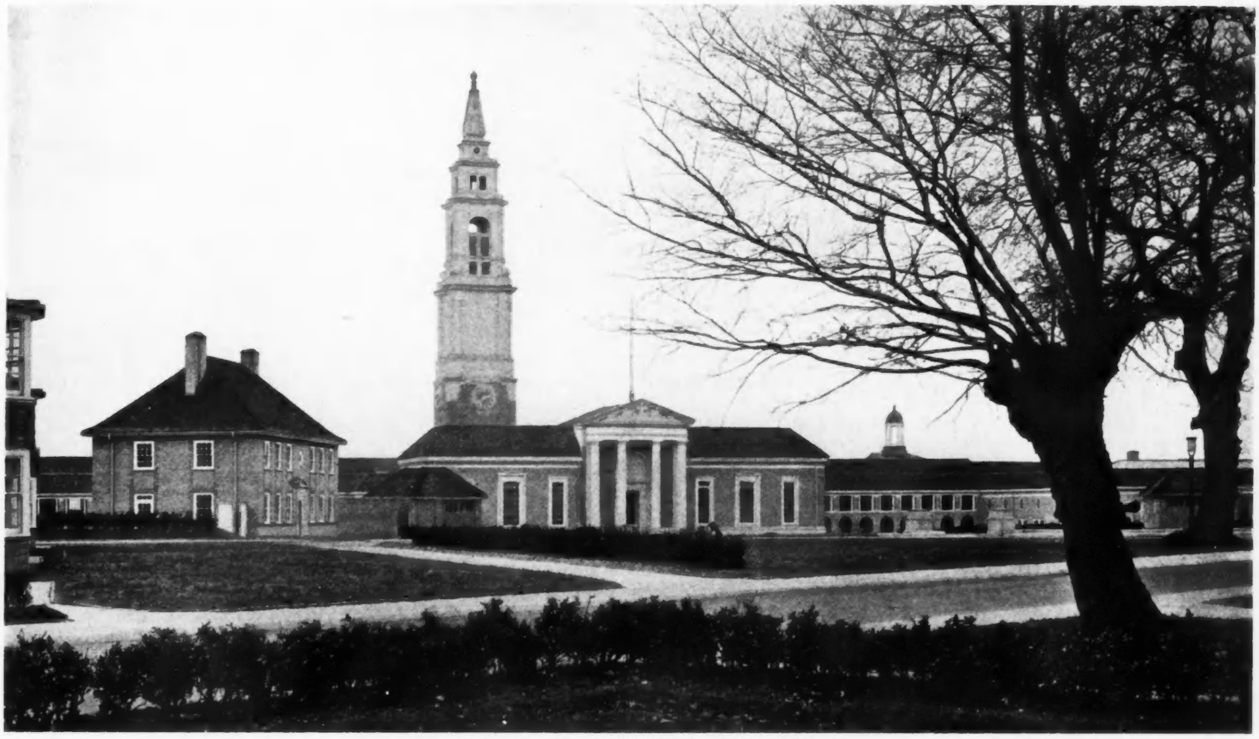
The buildings are faced with Blockley bricks, and roofed with Roman tiles; plinths, colonnades, tower and dressings are of Portland stone.

The Royal Hospital School was founded in 1712 for the education of ten boys, sons of inmates of Greenwich Hospital; by 1783 the numbers had increased to 200; today the establishment numbers 860, and accommodation is in view for a future total of 1,120 boys.

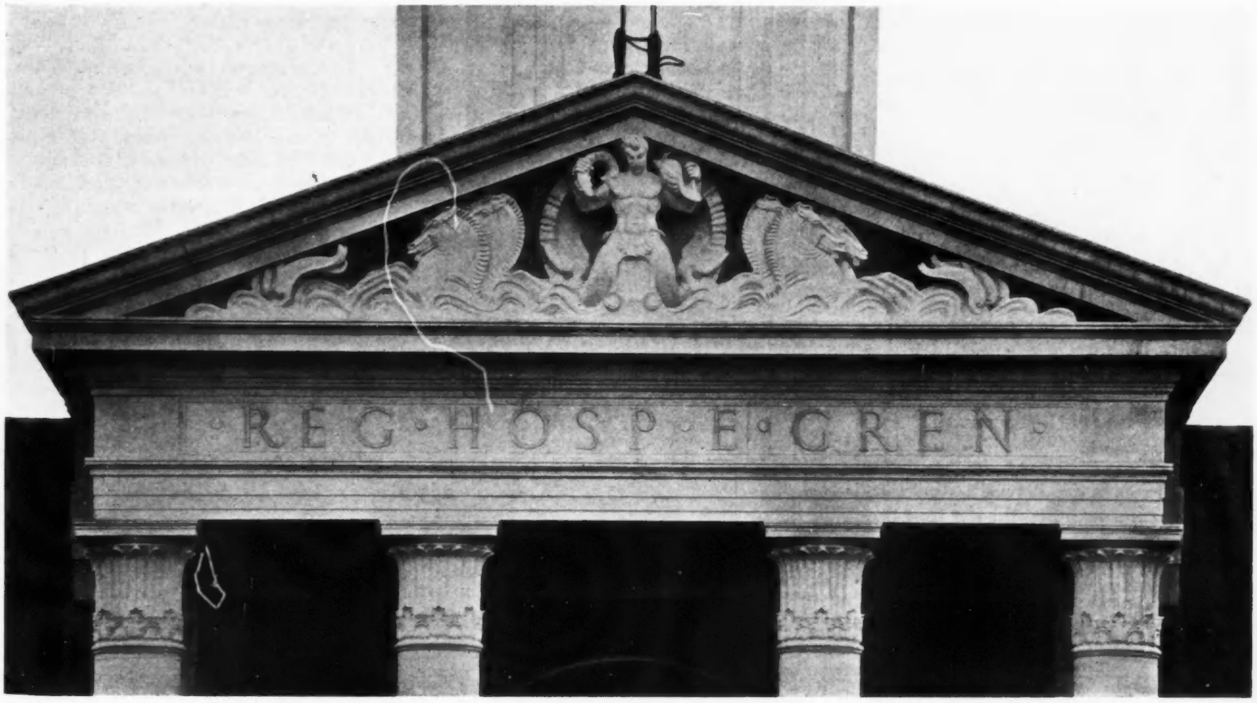




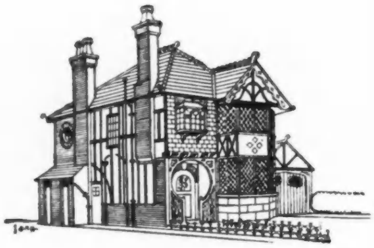
SUFFOLK : BY BUCKLAND AND HAYWOOD



The views on this page show the main entrance on the north front, with the assembly hall block, dominated by the Wren-like spire; and a detail of the sculpture in the classical pediment of the portico. To the right of the assembly hall is a range of classrooms on two floors, linking up with the block in which are placed the dining hall and kitchens. To the left a corresponding wing of classrooms terminates in the gymnasium and swimming bath. The spire forms a landmark visible from afar over the level landscape of the estuary of the Stour, and houses water tanks.



WHAT IS TO BE DONE ABOUT THIS?



[By 'PENATES']

[As it is almost certain that there will shortly be a revival of building work, especially of small house building, a full inquiry into contemporary speculative small house building practice is of immediate importance.

The article which follows is the first of a series in which will be outlined the why and wherefore of the present position, the requirements of the middle-class householder, methods of financing building work, and the possibility of further economies through the introduction of new materials and new methods of construction, and a revision of existing bye-laws. We shall also give examples of the achievements of architects who have themselves performed the functions of the speculative builder.

There can be no question of the desirability of architect-control in the large-scale developments that must soon go forward.—ED., "*A.J.*"]

1. The Speculative Builder

WE must have more houses. Though nearly two million have been built since the war ended, the supply has not yet caught up with the demand, and there is an especial need for the three-bedroom, non-parlour type, of 760 sq. ft. area, that sells for £520 or less, and lets at something under 8s. per week, rates excluded.*

Building costs have fallen and low interest rates have brought down the cost of capital: today, for the first time since the war, houses can be built, without subsidy, to let at rents that those who most need houses can afford.

Accordingly, the Government proposes to leave housing to private enterprise. The recent Housing Bill provides for the withdrawal of the subsidy, and suggests as a source of capital the wealth of the Building Societies, hitherto only partly exploited.

Under the present system the Societies advance 70 per cent. of the value of the completed building to the purchaser, but the new Bill proposes that the Government and the local authority shall each guarantee repayment of the difference between this 70 per cent. and 90 per cent., and in return the Societies shall advance up to 90 per cent. of the building cost to the builder, provided the scheme be approved, lower their customary rate of interest by 1 per cent., which is the equivalent of 1s. 8d. per week in rent, and extend the period of repayment to 30 years. One must anticipate, however, that private enterprise will act only in spheres where a big profit is ensured, and whilst houses for the more well-to-do artisan will doubtless be provided, it is unlikely that much will be done for the poorer of the working classes.

Largely with the object of avoiding this danger, Sir Raymond Unwin has urged the formation of a National Housing Corporation, whose activities would lie in the promotion of the building of houses for renting to the poorest classes, and the ownership and administration of them on completion.

So the present position is this: many more houses are needed, building is cheap, labour plentiful and finance easy. Arrangements may be made whereby even the building of houses to let at low rentals will become an economic proposition, though such housing may be controlled by a National Housing Board.

The speculative builder is thus preparing to get busy; we are familiar with his past achievements, and, as architects, we disapprove of them. But there exists no alternative machine for the performance of this essential work.

If the man in the street wants a ready-made house—and there is no reason why he should not—there will always be someone waiting to meet the demand. The twentieth-century small house is, in fact, a mass-produced industrial product; in a lesser degree, admittedly, than is desirable, largely because obsolete bye-laws continue to prohibit certain logical and economical methods and forms of building construction.

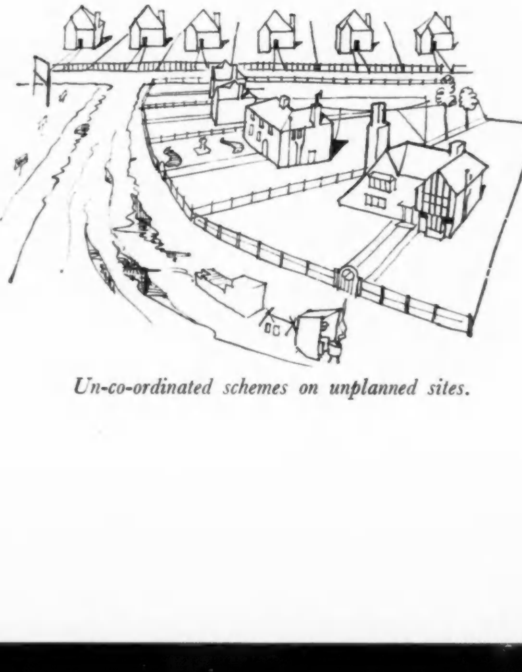
The problem of immediate concern, therefore, is the provision of well-planned houses that conform to a decent standard of design; "co-ordinated schemes on well laid-out sites."

The speculative builder has shown himself unable to provide these unaided. Why? Because the only person who can provide them is the architect.

We may assume, in fact, that the services of the architect should be, from every point of view, an important factor in speculative building, yet there are, today, hundreds of architects without work, whilst thousands of houses are being built without architects.

It is obvious that if architects do not make a concerted, active movement in house building there will be no cessation in the littering of nasty, self-conscious little villas all over the country, unco-ordinated groups of unplanned pretentious little villas that conform to no standard of design.

In 1923 the R.I.B.A., after consultation with the National Federation of House Builders, the London House Builders' Association and the National Federation of Building Trades Employers of Great Britain and Ireland, issued a scale of fees for architects for private enterprise housing work; a scale which applies only where the services of the architect are limited to the preparation of drawings. The scale is 4 per cent. for the first unit, 2 per cent. for the second unit, £3 3s. each for the next twenty-five, and £2 2s. each for all others. Above two units the fees include for a lay-out plan and two types for the first twenty houses and one additional type for every additional twenty houses. It has been said, however, that the results of the new scale have been negligible: first, because it



Un-co-ordinated schemes on unplanned sites.

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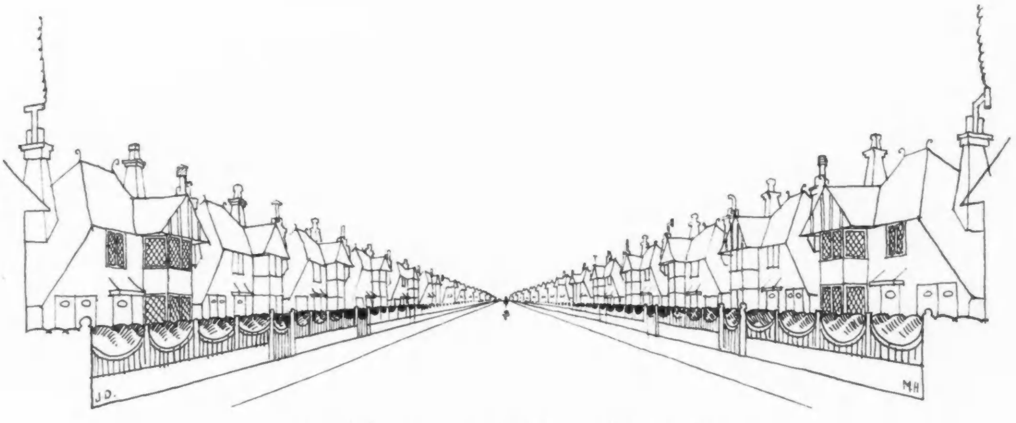
* 9s. 9d. to 10s. per week, inclusive of rates.



A twentieth-century standard in small house design.

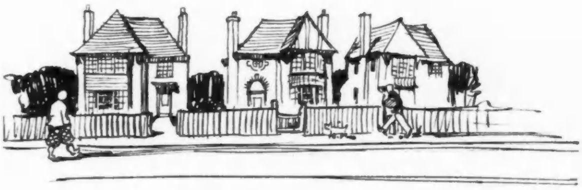
may be unknown to builders, financiers and architects, and secondly because, whilst being unremunerative to the architect, it may be too high for the builder. If this is the case we can only assume the employment of an architect in speculative building work to be an economic impossibility; but such an assumption is incompatible with existing cases, admittedly and unfortunately isolated, in which the builder has employed an architect and provided houses of outstanding merit that are good sellers and show a profit.

But if, in general, the promoters of speculative house building will not employ them, and cannot without them improve on the present standard, then architects, in order to re-capture work, improve existing house design and preserve amenities, must evolve other machinery for the performance of this important economic function.

When the architect has capital of his own there is little difficulty in his building speculatively. Several men of repute are working in this way at the present time. Others, whose capital is limited, work with a builder or with a group of sub-contractors. Alternatively, the pooled capital of several architects is employed, but if the movement is to be effective in creating a new standard in house design, it must be immediate and on a large scale,* and steps must be taken to accelerate the revision of restrictive bye-laws.

Some may criticize the practice as unprofessional, but can they really believe etiquette to be of greater importance than architecture, and intelligent land development?

It is only by such constructive steps that architects are able to do the work that can alone be done well by them, and to enforce, by example and the creation of a demand, a better standard of small house building than exists today. But little purpose can be served by appealing to the public through "architecture." What is needed is better accommodation for less money, and this, through economical planning and the intelligent use of new materials, the architect is able to provide.



Pretentious little villas.

LETTERS FROM READERS

J. CRAVEN PRITCHARD
H. B. BRYANT
(Secretary, Building Industries National Council)
W. C. B. SMITH, A.R.I.B.A.
THOMAS PAYNE
F. R. YERBURY, HON. A.R.I.B.A.
OAKELEY SLATE QUARRIES CO., LTD.
E. A. L. MARTYN, A.R.I.B.A.
JOHN SUMMERSON, B. ARCH., A.R.I.B.A.

The Housing Bill

SIR,—Mr. Coppock's letter in your last issue seems to represent the considered view of a large proportion of the enthusiasts for Town Planning and those who wish to improve the general housing conditions of a mass of the population.

In essence it is to go back to the Addison Act of 1919. On general grounds this seems a retrograde step in so far as this Act, while it produced a certain number of relatively decent houses, did not do so either in sufficient numbers or at an economical price. It would appear, therefore, that a new approach must be found.

There is some hope that the Departmental Committee that has now been appointed to enquire into this problem, with terms of reference which should cover a possible Housing Corporation, should show very much greater hopes of a solution. Housing has yet to go through the phase of individual local production. In *The Times* for February 14 it was shown that there were something like 56,000 firms of builders and that only about 8,000 employed ten or more persons at an average turnover of £11,000 and over.

When motor-car production started there was also a very large number of makers each making a few cars a year. Now three-quarters of the British cars made each year are produced by only three firms. It is clear then that before the advantages of modern production can be applied to housing a great deal of rationalization has to be done.

A completely new technique of construction will have to be worked out, and there seems to be greater hope that a National Housing Corporation would be able to do this than a mere reversion to the Addison Act of 1919. Before such a Corporation could be effective, there will have to be very considerable modification of local regulations as applied to sanitation and construction, trades union restrictions and the reconsideration of the permanence of "capital."

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* It has been shown that houses erected two at a time cost so much more than those, of a similar type, that are built in hundreds, that they are not an economical proposition.

If a Corporation could come into being with the ground cleared to this extent, and if it could be given the responsibility of making its structure safe and sanitary, there would be very considerable hope that the mass of the people would be housed in a decent manner and on a very much higher standard than the present artisan dwelling.

J. CRAVEN PRITCHARD

De-Slumming

SIR,—Mr. Maxwell Fry's otherwise most excellent article on "De-Slumming" (issue for March 15) seems to be impaired somewhat by his early statement to the effect that building costs have risen faster than either wages or the common standard of living. It is not clear to what period Mr. Fry refers, but in case an entirely false impression should be conveyed by this statement it is necessary that the facts of the matter, so far as they can be ascertained and applied, should be stated.

While it is true that building costs are higher than in 1914, they have risen (and fallen) with the official cost-of-living figures, to which, as far as labour costs are concerned, they are bound, the standard of construction (quite properly) has continued to rise. The modern standard of the semi-detached non-parlour type of house, together with its amenities of separate scullery, bathroom, sanitary accommodation, etc., and its greatly increased floor area, represents an advance of probably not less than 100 per cent. from the standards involved in the pre-war terrace type of house, with its ghastly tunnel entrance passage and its light-blocking back addition.

The present constructional standards, it must be remembered, are, in effect, legal standards, and the Building Industry merely has to comply with them. Prior to 1914 the narrow type of terrace house (which has become the modern curse of industrial towns), cost on an average approximately £200 to build. Modern cottages, with greater cube and greater amenities, can now be built for something slightly in excess of £300.

The official cost-of-living index is now 41 per cent. above 1914. But this figure shows merely the average increase in the cost of maintaining unchanged the pre-war standard of living of working-class families. It is not a figure which can be compared with all phases of building costs. Neither can the comparison of pre-war wages or other rates with present rates fairly be made, unless the other factors contributing to building costs are taken into consideration.

It is true that the average increase in the cost of building material is greater than the relative increase in the cost-of-living index. But the quality of building materials has improved enormously as a result of modern progress. Further, as was pointed out in the JOURNAL of January 11, there has been an average fall of about 20 per cent. in the cost of building materials in recent years.

On the whole, it is true to say that, with improved organization and increased output, modern cottages, which represent an advance of possibly well over 50 per cent. in super area, and well over 100 per cent. in domestic amenities, are being produced today at an actual constructional cost of very little more than 50 per cent. above pre-war constructional costs of the same type.

So much for the actual building costs; but these do not represent the total cost to the building owner. He has to face the costs of what are in effect the "raw materials" of the Building Industry, namely, land and finance charges. The cost of land adjacent to towns has increased enormously, since pre-war days. The Building Industry has no control over this factor. Interest charges on loans and mortgages generally have also increased, entailing not only an additional charge on first costs, but one that is not in all cases reflected in the rent chargeable, or which the usual type of tenant can afford to pay. The position, therefore, is that on a house costing £300, the building owner, on the basis of 90 per cent., and mortgage at 4½ per cent. advance, has to meet a charge equalling 4s. 8d. per week, which in most cases represents more than 50 per cent. of the weekly rent. Neither the builder nor the building owner has any real control over this charge. The position is rapidly being reached where the financial agencies are getting a higher and more certain return on their money than are the actual builders. Herein lies the core of the problem, as it presents itself today, of providing houses at a rent that the average low wage-earner can afford to pay. The problem, in fact, is not so much a building problem as a financial one.

As a general reference to building costs as such, there would appear to be sound ground for asserting that, where conditions are comparable, modern building costs are, value for value, actually lower than pre-war costs. No one could deny, for instance, that the maintenance cost of modern building is anything like so heavy as in the case of pre-war building.

H. B. BRYANT

[The above letter was submitted to Mr. E. Maxwell Fry, who has sent us the following reply.—ED., *A.J.*]

I stand very willingly corrected by Mr. H. B. Bryant's illuminating analysis of relative building costs so far as they appertain to cottage building outside the peak years of post-war construction—even perhaps for block dwelling building, though in this latter connection my estimate of wages was a very low one, taking into account unemployment, and my estimate of building costs included planning and design as well as construction.

But in the main I accept the criticism in return for more information than one commonly looks for in answer to a rhetorical question.

E. MAXWELL FRY

Information Sheets

SIR,—Please accept my appreciation of the latest feature of THE ARCHITECTS' JOURNAL—the weekly Information Sheets. The gratitude of many members of the profession is due to you and to Messrs. Burnet, Tait and Lorne.

May I mention a small point in connection with one of the sheets? Sheet No. 3, entitled "Seating for Schools," is applicable only to secondary schools. As the Board of Education's recommendations for elementary schools are somewhat different, I wonder if a similar sheet is forthcoming for elementary schools. I have myself, for the time being, attached to my copy of Sheet No. 3 a supplementary sheet, and I venture to enclose a print herewith.

WM. C. B. SMITH

[*This supplementary sheet is illustrated on the opposite page. We applaud our correspontent's zeal and would take this opportunity of saying that we should be glad to receive either new information sheets or suggestions for Information Sheets from other architects.* —ED., *A.J.*]

Standard Cottage Competition

SIR,—The Building Centre invite designs for an improved "Standard" type of cottage, "which has already been carefully worked out." Competitors are obviously expected to expend much care and skill in arriving at a better solution. For this privilege they are required to pay one shilling for a two-page sheet of conditions to provide a premium of £100.

The assurance that "the copyright of

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CLASSROOMS :

Area per pupil:
(Board of Education recommendation)
up to 11 years ... 10 sq. ft. per head ... ...
up to 15 " ... 12 sq. ft. per head ... ...
Size of Desks:
Dual desks ...... 3'.4" wide ... ...
Spacing (minimum):
1'. 4" at each side of each desk and between desk and wall ... ...
6" between back desk and wall.
2'.0" depth, centre to centre of desks ... ...
For heights, see next column ... ...

ASSEMBLY HALLS :

Area per person ... ... 3½ sq. ft. ...
area generally not to exceed 1,500 sq. ft ... ...

STAIRCASES :

one for each sex ... ...
handrail on each side ... ...
at least one external wall ... ...
minimum width, four feet ... ...
not more than 14 steps per flight.
treads 11" to 13" wide, and risers 5½" to 6" high ... ...

CORRIDORS :

6 to 8 feet wide ... ...

CLOSETS & URINALS :

table :—

numbers	girls	boys (+ urinals)
under 30 children ...	3	1
" 50 " ...	4	2
" 70 " ...	5	2
" 100 " ...	6	3
" 150 " ...	8	3
" 200 " ...	10	4
" 300 " ...	14	5
" 400 " ...	18	6

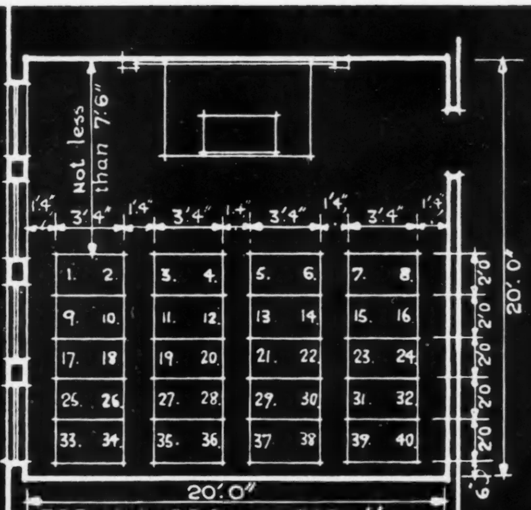
urinals 10 ft. per 100 boys ... ...
w.c's not less than 2'3" centres ...
lavatories: 2 for every 50 pupils ...

CLOAKS :

gangways 4'.0" wide ... ...
hat pegs in two tiers: girls and infants 18" apart : boys 12" apart ...
i.e: lineal hanging space: boys 6"; girls 9" ... ...

PLAYGROUNDS :

under 200 children :-
2,000 sq. ft. + 20 s.f. per pupil over 11 + 6 s.f per pupil under 11 ... ...
over 200 children :-
30 sq. ft per pupil over 11 + 16 sq. ft. per pupil under 11 ... ...
the above is for cases where no other provision is available for outdoor games ... ...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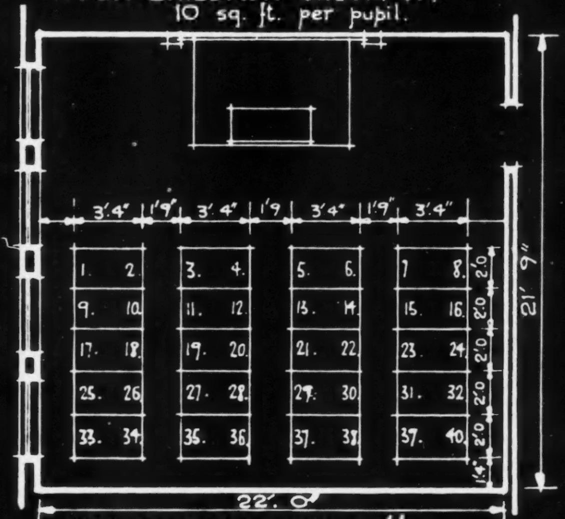
FOR CHILDREN UNDER 11.
10 sq. ft. per pupil.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1'9"
3'.4"
1'9
3'.4"
1'9"
3'.4"
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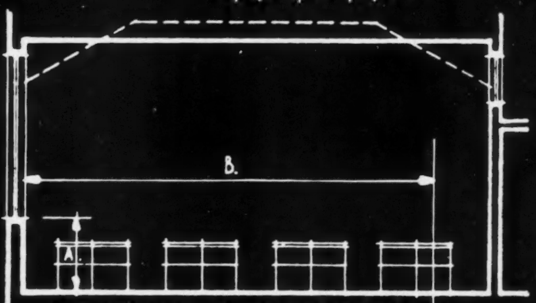
9. 10. 11. 12. 13. 14. 15. 16.
17. 18. 19. 20. 21. 22. 23. 24.
25. 26 27. 28. 29. 30. 31. 32.
33. 34 35. 36 37. 38 37. 40.
2'0
2'0
2'0
2'0
2'0
1'4"
21' 9"
22'. 0"

FOR CHILDREN OVER 11.
12 sq. ft. per pupil.



SECTION of CLASSROOM

CLASSROOM HEIGHTS.

(a). If flat ceiling :-
12 ft. high, unless windows on two sides, then 11 ft. (minimum):
(b). If ceiled at collar beam :-
10 ft. to wall plate
13 ft. to ceiling (ceiled area at least half floor area).

Dimension A. = 3'. 6" maximum.
" B. = 20'. 0" maximum, unless window be more than 12'. 0" high ... ...

· ELEMENTARY ·

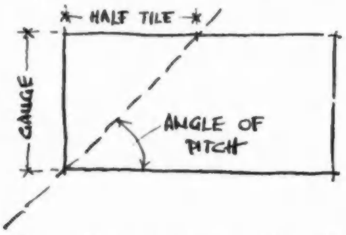
INFORMATION SHEETS • 3A • SEATING FOR SCHOOLS

his design will remain the property of the competitor" is useful when a journal devoted to farming is distributing these conditions and plans free with the advice "to wait until the competition is out before building."

A popular contemporary is offering a prize of £300 for a rhyming couplet to the line, "'Sweetheart, where are you?' she called up the stairs," the entrance fee being threepence. I suggest that this is much the better proposition of the two. H. S.

The Winchester Cut

SIR,—With reference to "Student's" enquiry, *re* the pitch at which the Winchester Cut is applicable, I would point out that this can be varied at will by altering the gauge at which the weather tiling is hung. The angle for various gauges can be found as shown in sketch.



THOMAS PAYNE

Not a Church

SIR,—May I refer to your issue for March 22, and to the illustration on page 387, and may I also quote your caption?

> You would say, would you not, that this is a block of flats or the court of an office building, or, conceivably, a colossal school? Not so, gentle reader; it is a sacred edifice, a church. It represents a modern conjugation of the verb to worship, and has recently been erected in Hamburg.

This seems so perfectly to represent the general upside-downness of things in the Fatherland at the present time, that it is a pity the building referred to happens to be not a church, but an office block—the Sprinkenhof—a colossal business centre put up in Hamburg by the architects Höge and Gerson, about six years ago. The view is one of the inner courtyard taken from the ramp which leads down to the underground garages attached to the building.

F. R. YERBURY

[*We suggest that, in future, titles on the backs of photographs submitted by press agencies to the architectural journals should be verified by Mr. Yerbury!* —ED., *A.J.*]

Purple Slates and Red Tiles

SIR,—In your issue for March 15 Astragal asks: "Which is the fouler, a purple slate or a cheap red tile?" We do not presume to offer an opinion, but why does he not mention the grey-blue slate of the Festiniog district in North Wales, which discerning architects specified for the old buildings of our cathedral cities, and now specify for the modern housing schemes in country districts?

"What," he asks, "are the economics of slate selling? Are the thin, accurately-squared horrors really the cheapest to produce and market?" The answer is that the thinner the slate the more it costs, and again, architects in this country, where they can afford the expense, do not hesitate in their choice, and abroad, for buildings like the old Hôtel de Ville, at Brussels, and the more modern Peace Palace, at the Hague, have selected these slates in preference to all others.

As the people responsible for the production of these monstrosities, may we ask what is the alternative proposed to end the "period of debased taste that keeps them hanging on"? After producing for the best part of a century we are still open to any help your correspondent can give us.

The real value of a decent slate is that until the nails rot it "keeps hanging on."

OAKELEY SLATE QUARRIES CO., LTD.

[We submitted the above letter to Astragal, who has sent us the following reply.]

The reason why I did not mention the grey-blue slate of the Festiniog district is because I was venting my spleen upon the foul purple ones which look so cheap but which cost apparently more than thick rough ones. I am no enemy of slates, for two years ago I used a quantity of blue-grey slates with a dash of green in them, and they came from Festiniog or thereabouts! They looked uncommon well with cream-washed walls.

What has brought slates into disrepute is the habit of laying thin purple slates with devastating accuracy on rows of ugly houses, capping the performance with a red tile ridge. If slate manufacturers wish to repopularize slate let them educate the builder. He has caused the trouble.—ASTRAGAL.

Technical Paper No. 7

SIR,—In the notice of this publication in your issue for March 15, it is very evident that your reviewer was much upset because no reference was made to the "Daylight Factor Theodolite" and grilles invented by Mr. John Swarbrick.

It is, however, a pity that he should have allowed his annoyance to lead him into numerous misstatements in the course of his review. To start with, the title of the technical paper is not *Easements of Light* but *Penetration of Daylight and Sunlight into Buildings*. The Radial Calculating Sheets published in Mr. Swarbrick's book are for the measurement of daylight on horizontal planes only, while a rectangular diagram for the measurement of light on vertical surfaces was devised by Messrs. P. J. and J. M. Waldram as long ago as 1922. It is, however, not often made use of, as in nearly all "ancient light" cases, the light on the horizontal plane of reference is what matters.

The important point in connection with the 2nd edition of Technical Paper No. 7 has been quite missed by your reviewer. It is that the "Droop Diagrams" (kindly disclosed by Mr. Waldram) are of great assistance to the average architect, who occasionally needs to work out contoured daylight plans, but does not want expensive instruments seldom needed in ordinary practice. And the Daylight Factor Photo-Theodolite cannot photograph buildings before they have been erected.

E. A. L. MARTYN

A Biography of Nash

SIR,—I am engaged upon a biography of John Nash (1752-1835), the architect, and should be very glad to hear of any letters or drawings connected with Nash now in private hands. If any of your readers would inform me of the whereabouts of documents of this nature I should be extremely grateful.

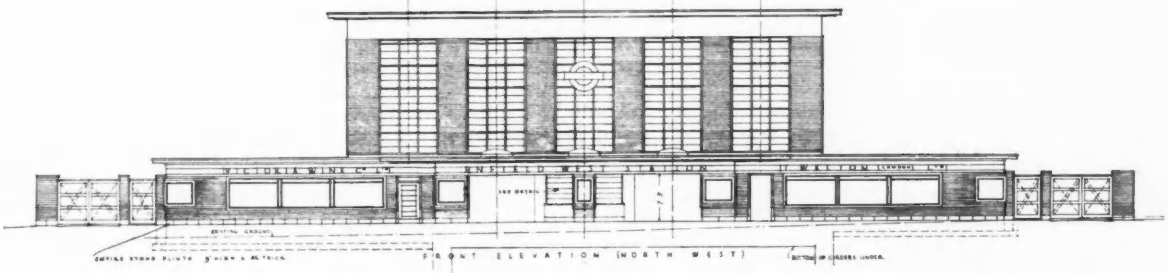
JOHN SUMMERSON

The Slum Drive

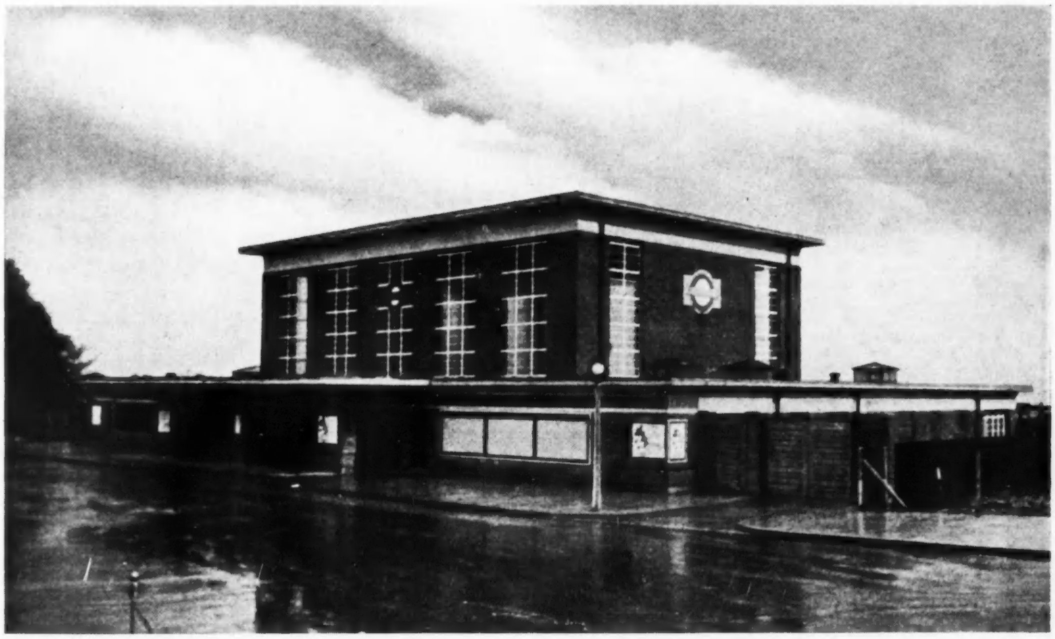
Sir Hilton Young, the Minister of Health, in the course of an address to the Chelsea Housing Improvement Society last week, said:

> Our common object is to get rid of the slums. We have at present a good opportunity to make better progress with that than we have made for years. We must get to work, and we have now the opportunity. It is provided by the great fall in building costs.
>
> It is right to do so. The slums are our most crying social evil. Their removal is our chief social need. We need to make a plan of campaign against this enemy and to stick to it when made. I shall, within a few days, be entering into conference with the representatives of the local authorities on the matter, preliminary to asking them, in cases in which it has not already been done, to prepare as a matter of urgency surveys of their slums, and programmes for dealing with them within a fixed time. After that will come the hard work of seeing the programmes through. It can be done and it will be done, because public opinion is behind us.

ENFIELD WEST UNDERGROUND STATION


VICTORIA WINE Co Ltd
ENFIELD WEST STATION
J. WALTON (LONDON) Ltd
SEE DETAIL
EXISTING GROUND
EMPIRE STONE PLINTH 9" HIGH x 4½" THICK
FRONT ELEVATION (NORTH WEST)
BOTTOM OF GIRDERS UNDER

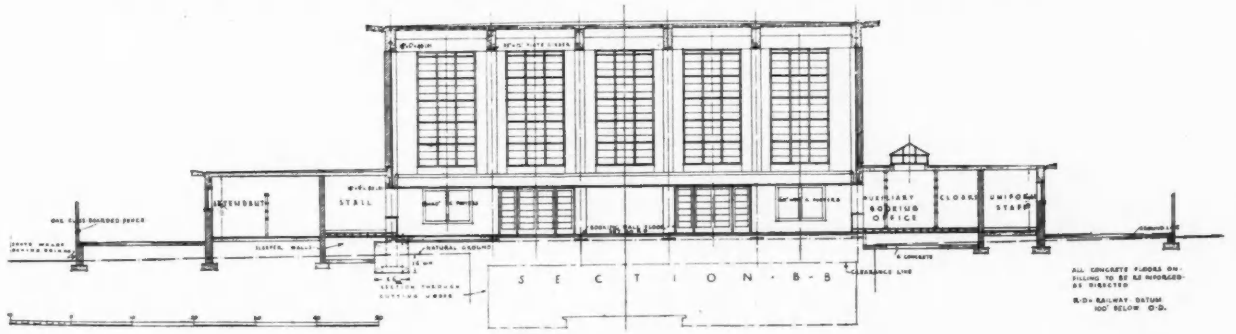
BY C. H. JAMES (ADAMS, HOLDEN AND PEARSON, CONSULTING)



Enfield West Station, one of the two latest on the Southgate tube extension, follows in its main features the type of design for the new country stations at both ends of the line, as at Sudbury Town and Turnpike Lane, for example. The booking hall (see plan overleaf), standing at an angle to East Barnet Road, is controlled, both in size and position, by the lines of beams over the tracks in the cutting beneath. It is lighted by large windows at the front and back and is surrounded by lower service buildings. A double entrance leads through the hall past the booking booth and ticket machines, to the staircase (see pages 438-9) descending to one double-sided platform (see Supplement). The building is faced inside and out with grey South Wales and multi-coloured Buckinghamshire facings, with beams and cornices in grey Portland cement concrete, with Portland stone aggregate on the face, the skin being cleaned off.

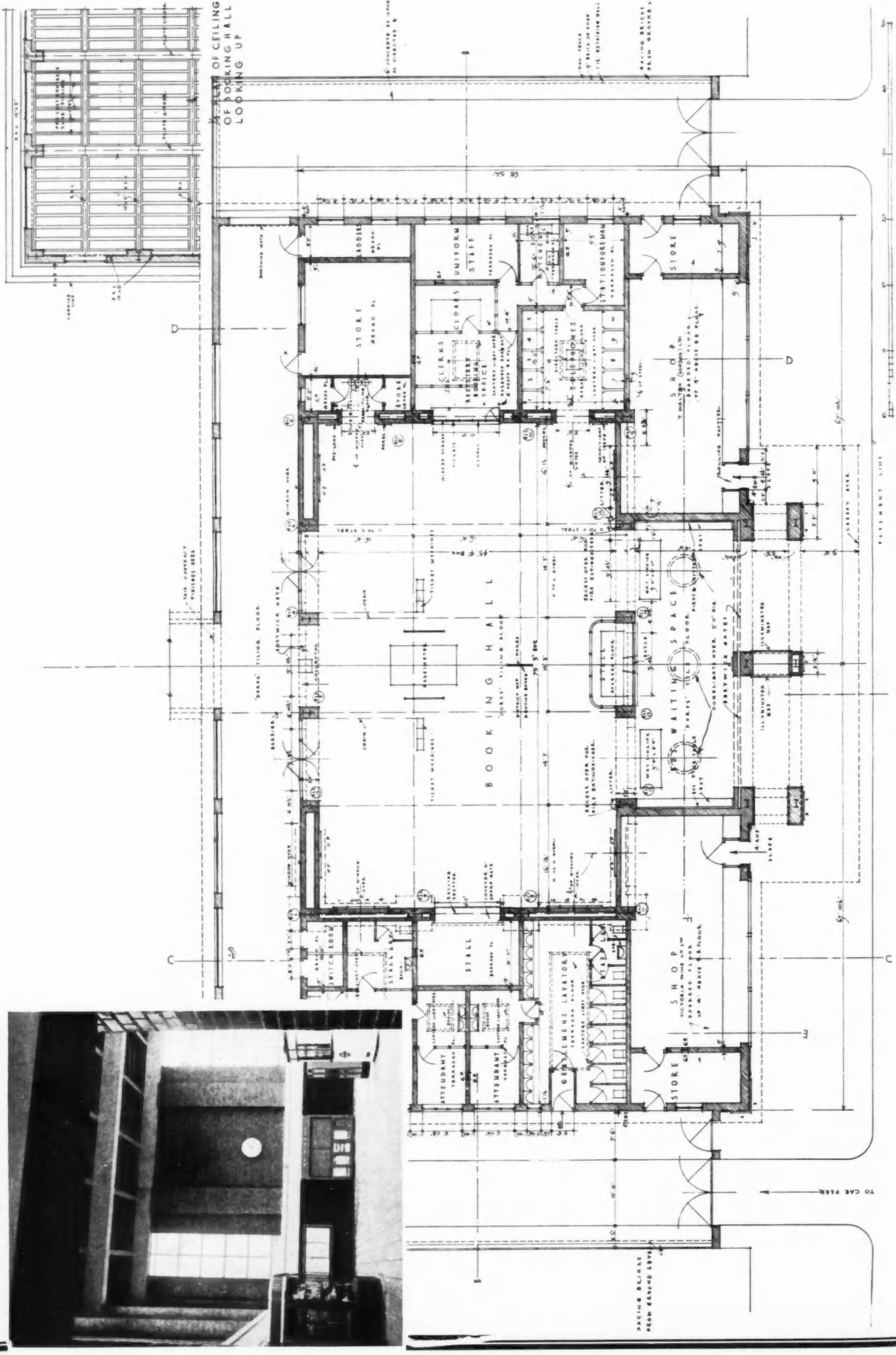
The booking-hall has a deep dado, 7 ft. 9 ins. high, of black glazed brick, under a broad concrete ring-beam at fascia level, the bronze and wood shop-fronts being picked out in green. The frieze under the lower cornice at the level of the name fascias outside is in faience tiles similar to those used in similar positions at Arnos Grove and Acton Town Stations, but green instead of blue.

To save time in erection and to preserve the brickwork from staining from cement, the main hall was built as a steel frame and the concrete to stanchions, beams and roof cast and set before the brickwork was started.


ATTENDANT
STALL
OAK CLOSE BOARDED FENCE
SOUTH WALES FACING BRICKS
SLEEPER WALLS
NATURAL GROUND
SECTION THROUGH CUTTING WORKS
BOOKING HALL FLOOR
AUXILIARY BOOKING OFFICE
CLOARS
UNIFORM STAFF
GROUND LINE
CONCRETE
CLEARANCE LINE
SECTION · B · B
ALL CONCRETE FLOORS ON FILLING TO BE RE INFORCED AS DIRECTED
R.D. RAILWAY DATUM 100' BELOW O.D.

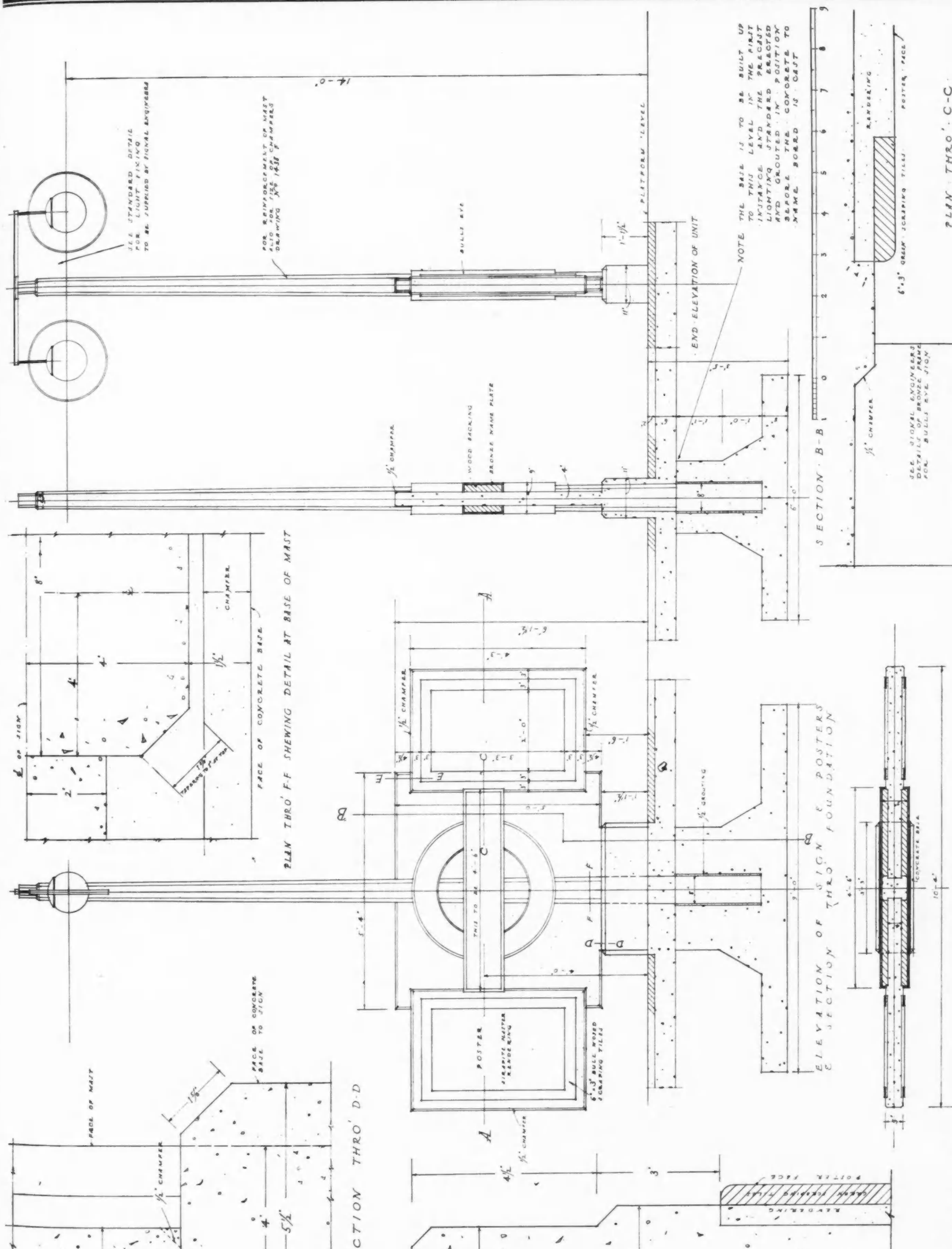
(NOTE: For the work below ground level—stairs, platforms, etc.—the architect to the Underground Railways, S. A. Heaps, was responsible.)

ENFIELD WEST STATION: BOOKING HALL; AND NAME MAST


PLAN OF CEILING OF BOOKING HALL LOOKING UP
BOOKING HALL
WAITING SPACE
SHOP
STORE
STALL
CLERKS BOOKING OFFICE
CLOAKS
UNIFORM STAFF
STATIONFOREMAN
TELEPHONES
LADIES
SWITCH ROOM
GENTLEMENS LAVATORY
ATTENDANT
TICKET MACHINES
D
C

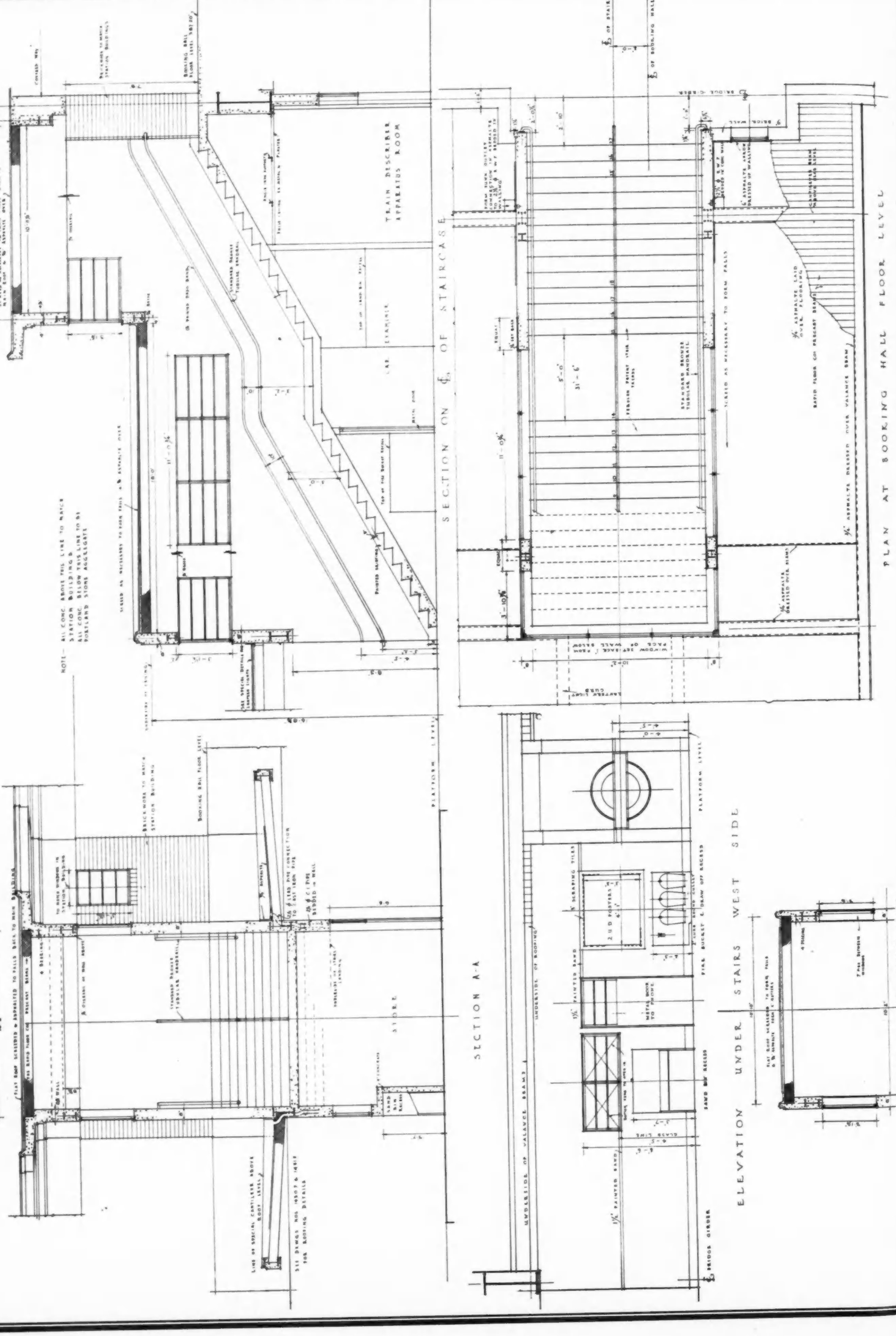
DESIGNED BY C. H. JAMES (ADAMS, HOLDEN AND PEARSON, CONSULTING)

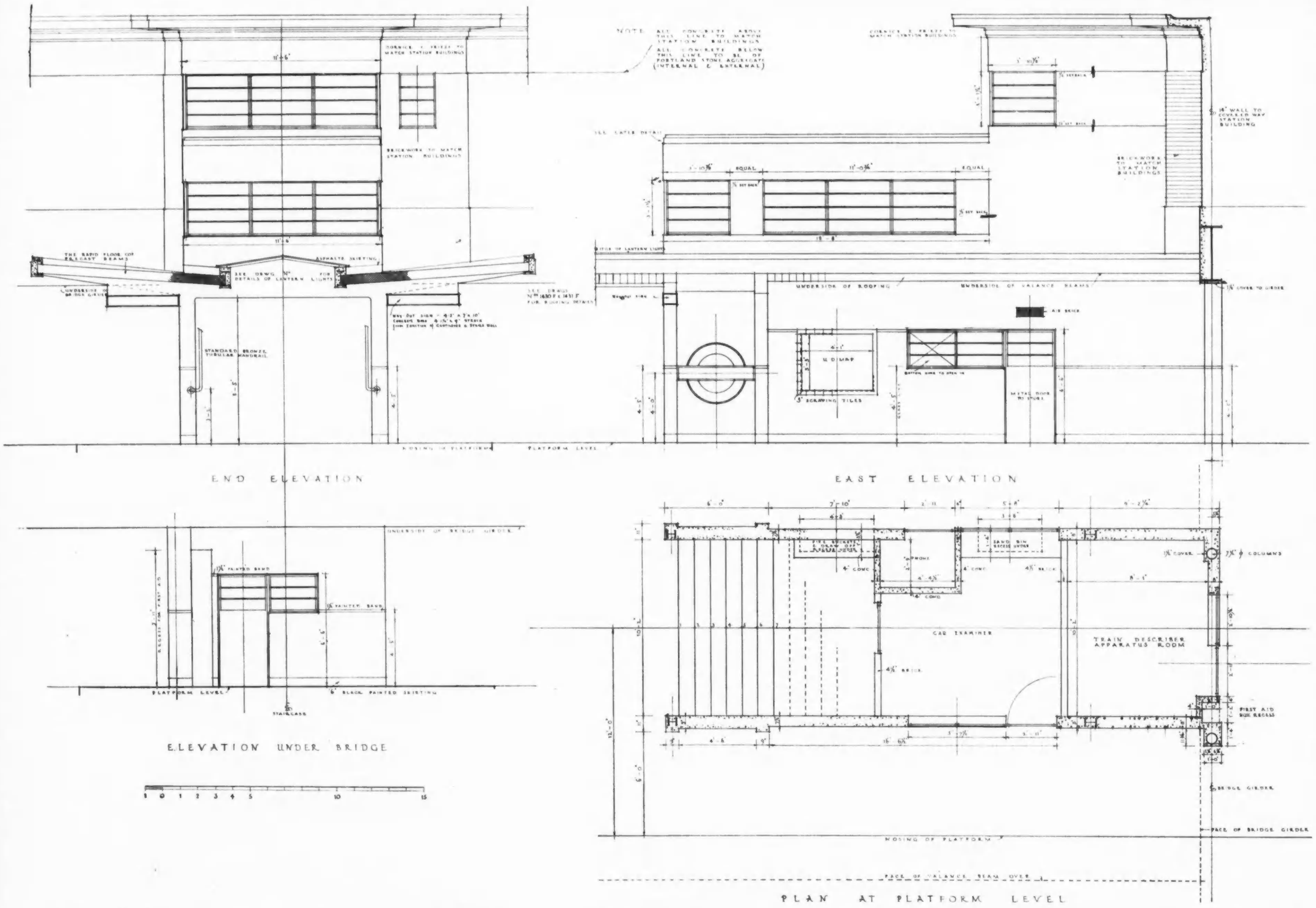
DESIGNED BY C. H. JAMES (ADAMS, HOLDEN AND PEARSON, CONSULTING)


14'-0"
SEE STANDARD DETAIL FOR LIGHT FIXING TO BE SUPPLIED BY SIGNAL ENGINEERS
FOR REINFORCEMENT OF MAST ALSO FOR SIZE OF CHAMFERS DRAWING No 1438 F
BULLS EYE
PLATFORM LEVEL
END ELEVATION OF UNIT
NOTE THE BASE IS TO BE BUILT UP TO THIS LEVEL IN THE FIRST INSTANCE AND THE PRECAST LIGHTING STANDARD ERECTED AND GROUTED IN POSITION BEFORE THE CONCRETE TO NAME BOARD IS CAST
½" CHAMFER
WOOD BACKING
BRONZE NAME PLATE
SECTION B-B
PLAN THRO' C-C
RENDERING
POSTER FACE
6"×3" GREEN SCRAPING TILES
SEE SIGNAL ENGINEERS DETAILS OF BRONZE FRAME FOR BULLS EYE SIGN
FACE OF BULLS EYE SIGN
PLAN THRO' F-F SHEWING DETAIL AT BASE OF MAST
FACE OF CONCRETE BASE
℄ OF SIGN
CHAMFER
ELEVATION OF SIGN & POSTERS SECTION THRO' FOUNDATION
POSTER
SIRAPITE MASTER RENDERING
6"×3" BULL NOSED SCRAPING TILES
½" GROUTING
THIS TO BE 4'-6"
PLAN THRO' A-A
CONCRETE BASE
10'-4"
SECTION THRO' D-D
FACE OF MAST
FACE OF CONCRETE BASE TO SIGN
℄ OF MAST & SIGN
SECTION E-E
℄ OF SIGN
A
B
C
D
E
F

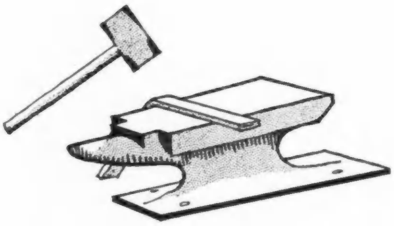
DESIGNED BY S. A. HEAPS, ARCHITECT, UNDERGROUND RAILWAYS

ENFIELD WEST STATION: DETAILS OF STAIRCASE


SECTION ON ℄ OF STAIRCASE
TRAIN DESCRIBER APPARATUS ROOM
STANDARD BRONZE TUBULAR HANDRAIL
PLAN AT BOOKING HALL FLOOR LEVEL
℄ OF STAIRS
℄ OF BOOKING HALL
BOOKING HALL FLOOR LEVEL
PLATFORM LEVEL
NOTE – ALL CONC. ABOVE THIS LINE TO MATCH STATION BUILDING. ALL CONC. BELOW THIS LINE TO BE PORTLAND STONE AGGREGATE
BRICKWORK TO MATCH STATION BUILDING
STORE
SECTION A-A
UNDERSIDE OF VALANCE BEAMS
UNDERSIDE OF ROOFING
2 D/D POSTERS
FIRE BUCKET & DRAW OFF RECESS
SAND BIN RECESS
ELEVATION UNDER STAIRS WEST SIDE
℄ BRIDGE GIRDER
SECTION FROM ROOF MIDDLE LEVEL


11'-6"
CORNICE & FRIEZE TO MATCH STATION BUILDINGS
BRICKWORK TO MATCH STATION BUILDINGS
11'-6"
THE RAPID FLOOR COY PRECAST BEAMS
ASPHALTE SKIRTING
SEE DRWG Nº FOR DETAILS OF LANTERN LIGHTS
UNDERSIDE OF BRIDGE GIRDER
WAY OUT SIGN - 4'2" x 7'x 10" CONCRETE BOX 4'1½" x 9" STEEL FROM JUNCTION OF CONTINUOUS & STAGE WALL
STANDARD BRONZE TUBULAR HANDRAIL
8'-5"
3'-3"
4'-5"
NOSING OF PLATFORM
PLATFORM LEVEL
END ELEVATION
NOTE ALL CONCRETE ABOVE THIS LINE TO MATCH STATION BUILDINGS
ALL CONCRETE BELOW THIS LINE TO BE OF PORTLAND STONE AGGREGATE (INTERNAL & EXTERNAL)
CORNICE & FRIEZE TO MATCH STATION BUILDINGS
3'-10⅝"
SEE LATER DETAIL
3'-10⅝"
EQUAL
11'-0¾"
EQUAL
18'-8"
RIDGE OF LANTERN LIGHTS
SEE DRWGS Nºˢ 1430 F & 1431 F FOR ROOFING DETAILS
14" WALL TO COVERED WAY STATION BUILDING
BRICKWORK TO MATCH STATION BUILDINGS
UNDERSIDE OF ROOFING
UNDERSIDE OF VALANCE BEAMS
1½" COVER TO GIRDER
AIR BRICK
4'-1"
U.D. MAP
3" SCRAPPING TILES
BOTTOM LIGHTS TO OPEN IN
METAL DOOR TO STORE
4'-3"
4'-0"
4'-5"
6'-6"
EAST ELEVATION
UNDERSIDE OF BRIDGE GIRDER
1½" PAINTED BAND
1½" PAINTED BAND
RECESS FOR FIRST AID
PLATFORM LEVEL
6" BLACK PAINTED SKIRTING
STAIRCASE
ELEVATION UNDER BRIDGE
0 1 2 3 4 5 10 15
6'-0"
7'-10"
2'-11"
5'-8"
9'-2¼"
4'-8"
3'-8"
FIRE BUCKETS & DRAW OFF RECESS UNDER
'PHONE
SAND BIN RECESS UNDER
4" CONC
4'-4½"
4" CONC
4½" BRICK
1½" COVER
7½" ∅ COLUMNS
8'-1"
CAR EXAMINER
TRAIN DESCRIBER APPARATUS ROOM
4½" BRICK
FIRST AID BOX RECESS
4'-6"
9"
16'-6⅜"
12'-0"
6'-0"
10'-2"
℄ BRIDGE GIRDER
FACE OF BRIDGE GIRDER
NOSING OF PLATFORM
FACE OF VALANCE BEAM OVER
PLAN AT PLATFORM LEVEL

DESIGNED BY S. A. HEAPS ARCHITECT, UNDERGROUND RAILWAYS



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

¶ If we are to build well, and with economy, and equip our buildings with fittings and machines that perform their functions in a straightforward manner, it is essential that architects and manufacturers shall keep in close contact with each other's work and aims.

My main object in these notes will be to bring into closer working relationship the architect and the manufacturer, who are so often inclined to work at loggerheads, to their mutual disadvantage; to select products whose portent may not be appreciated by the architect; and to give the information that the architect requires.

I shall be pleased to answer questions that may arise, and I shall welcome suggestions from architects and manufacturers. I shall be grateful to those who send illustrations and specifications of intelligently-produced materials and fittings, and I particularly want to receive details of new standardized building equipment.—F. R. S. Y.

A new structural steel

A MATERIAL that may have considerable influence on structural problems in the future is Chromador, a new British high-tensile structural steel, marketed by Messrs. Dorman Long, which contains chromium and a small percentage of copper, and has an ultimate strength of 37–43 tons per sq. in., a minimum yield point of 23 tons per sq. in., and an elongation of 17 per cent. on 8 in.

•

It is said that it is suited to all structural purposes for which mild steel is at present employed, and that a member in the new material is at least 50 per cent. stronger than a similar member in mild steel. Subjected to tests, beams 14 ins. by 6 ins. by 50 lb., and 12 ins. by 5 ins. by 30 lb., show the following results :—

Section.	Span.	Load at failure (tons) concentrated at centre of span.		Ratio of ultimate strength Chromador to mild steel.
		Chromador	Mild steel.	
16 in. × 6 in. × 50 lb.	20 ft.	40·1	26·2	1·53
12 in. × 5 in. × 30 lb.	12 ft.	36·9	22·0	1·68

—and full size tests on compound girders and on 10 ins. by 8 ins. by 55 lb. beams, of varying length, in compression, indicate that a 50 per cent. increase in the allowable working stress is justifiable.

•

It is interesting to note that the German State Railways specification for Continental high-tensile structural steel (St. 52) allows a 50 per cent. increase in unit stresses—a maximum permissible stress in tension of 13·32 tons per square inch—though the specified ultimate strength for St. 52 is somewhat less than that of Chromador.

•

Tests show the new material to have nearly twice the resistance to corrosion common to ordinary steel—an important characteristic since, by the employment of a higher unit stress, the thickness of sections in general use may be reduced.

•

It is claimed that rivets of similar composition develop at least 50 per cent. greater strength than mild steel rivets in mild steel plates, so it should be possible to develop the full strength of the new material without increasing the number of rivets or plate sizes.

•

Consequently a saving in the weight of steel, up to 35 per cent., should be effected in all those members whose size is directly proportionate to the load they have to carry—members whose sections cannot be reduced remaining in the usual quality of steel—and though the price of Chromador is approximately 20 per cent. higher, it costs less, strength for strength, than mild steel, and in addition, transport, erection and riveting costs are reduced in proportion to the decrease in weight, and in large structures, where the weight of the steelwork forms a large proportion of the total load, the saving in weight by the use of high tension steel will be greater than that represented by the ratio of the unit stresses.

Economy in cornice lighting

At the Monseigneur Restaurant, Piccadilly, W., Allom Brothers, Ltd., have installed, as a medium for general illumination, a new type of three-colour cornice lighting, remarkable for low current consumption and the saving effected in lamp renewals by the employment of ordinary 25-watt bulb type lamps in place of the usual cornice lighting centre filament lamps.

•

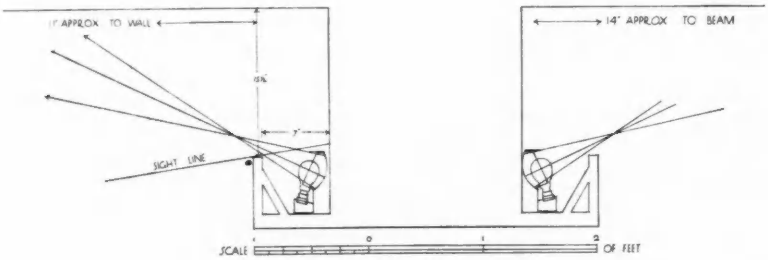
The restaurant is 72 ft. long, and the sources of the general lighting are concealed within cornice boxes that run on either side of two beams and along the flank walls, from end to end of the room.

•

The reflectors are not of the usual trough type, but are, in principle, based upon the Allom parabolic indirect lighting reflectors, and fit, cup-like, round the individual lamps.

•

They are mounted in 2 ft. long sections, each of which accommodates



A section through a ceiling beam at the Monseigneur Restaurant, showing the cornice lighting troughs and special reflectors, used in conjunction with ordinary 25-watt bulb-type lamps.

one lamp of each colour, i.e., one 25-watt lamp, on each circuit, spaced 2 ft. centre to centre.

•

The current consumption for the 432 ft. run of cornice lighting is as follows :—

No. 216.—25-watt white vacuum lamps —5,400 watts.
No. 216.—25-watt red vacuum lamps —5,400 watts.
No. 216.—40-watt blue gas-filled lamps —8,400 watts.

•

Each of the colour circuits is controlled on dimmers, which can be manipulated independently or together.

•

The white lighting service alone provides a satisfactory general illumination, and though the top edge of the cornice is only 15½ ins. from the ceiling (see diagram on facing page) and the throw across the central panel, between the two beams, is 14 ft., the distribution of light is quite even.

•

Sources of direct light, of low intensity —25-watt—on the secondary service, are introduced to counteract the monotony that results from unrelieved indirect lighting.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The Housing Bill

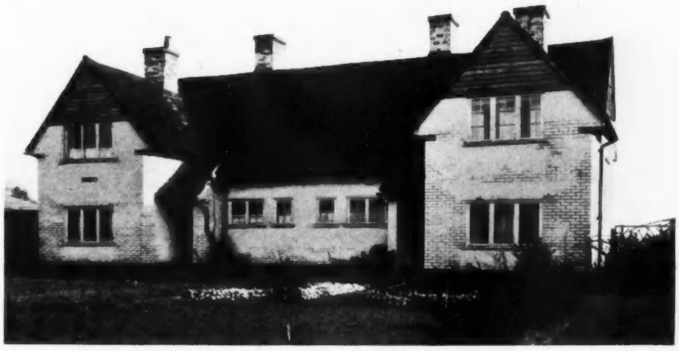
AFTER an interesting debate, the House of Lords last week gave a second reading to the Housing (Financial Provisions) Bill. For the most part, the speeches followed on the lines of those delivered in the Commons but one or two new points were raised. Lord Listowel, for instance, declared that housing throughout the country would be stimulated by the creation of a national housing corporation and if the Government were to give a guarantee for the raising of a substantial loan by such a body.

The Bishop of Winchester feared that the policy of the Government would fail in the provinces because of the high rents that would of necessity be charged for the new houses. The problem could not be dealt with by slum clearance alone ; there must be a large number of houses available at low rents.

Lord Reading said that the country was awaiting some wider vision on the part of the Government, some larger scheme and bolder enterprise to deal with the evils in which they were all agreed. Nothing had been said of the Government's attitude toward the proposal for a national housing corporation or some similar body which could be entrusted with the work of slum clearance and other matters.

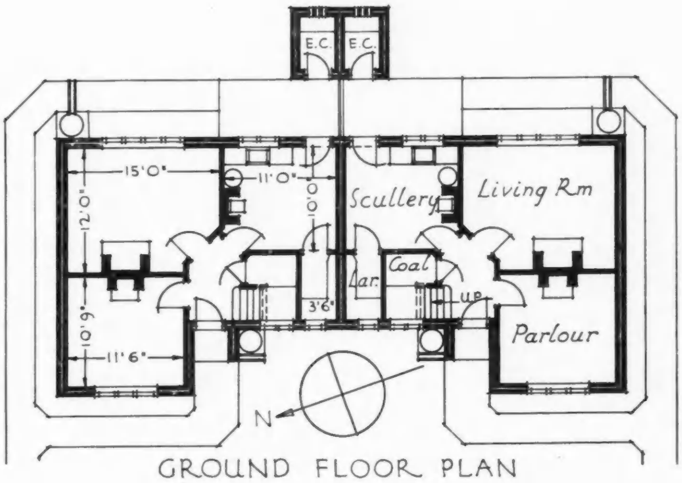
Lord Gage, for the Government, pointed out that this was one of the questions which had been submitted, like the questions

COTTAGES IN HANTS.

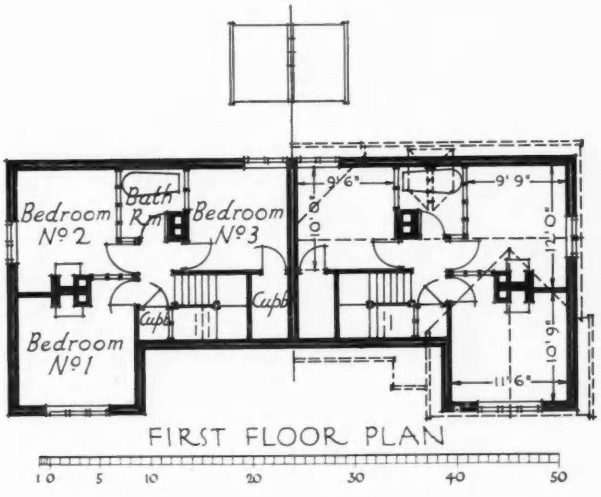


DESIGNED BY A. LEONARD ROBERTS

The cost of this pair of cottages at Chandler's Ford, designed by the County Architect of Hampshire, was £1,042 0s. 0d., or 10·14d. per foot cube. The brick walls are coloured with a cream slurry ; and the roof is of hand-made tiles.



GROUND FLOOR PLAN



FIRST FLOOR PLAN

of the general public utility societies, to the Committee presided over by Lord Moyne.

Lord Salisbury said that he could hardly speak with patience of the provision that there must be a fixed bath in every house. In his recollection there were no fixed baths, or hardly any, in the kind of houses in which their lordships lived. There was one fixed bath, certainly not more than two, in Hatfield House when he first knew it. Were they to believe that Hatfield House was outside the national standard of a civilized home? In another house that he remembered very well there was no fixed bath at all. He recognized that a fixed bath was an amenity of considerable value, but he thought it was ludicrous to make it compulsory.

Lord Gage, in reply to the debate, said that one of the difficulties in dealing with a national housing corporation was that at present there was not very much unanimity as to what form such a body should take. It was understood that its advocates were basing their advocacy on the view that a Government guarantee such as they sought would not involve a charge. Accordingly Lord Moyne's Committee were fully empowered to consider the case which those advocates desired to present. In any case, the Government would be free to act after the Committee's report in any direction they pleased.

Debate on Unemployment

During a debate on unemployment in the House of Commons, many Members urged the Government to finance housing schemes by loan-expenditure. Mr. Chamberlain, the Chancellor of the Exchequer, in his reply, said that where schemes, well thought out and justified on their merits, were presented to the Government, not only would they put no obstacle in their way, but, if help were required, they would be perfectly prepared to consider giving Government assistance in one form or another. There was the possibility of the erection of certain Government buildings. There were unemployment exchanges, for instance, in different parts of the country which were undoubtedly inconvenient and ineffective, and in some cases they held back the efficiency of the work which was being carried on by the Ministry. The Government were reviewing all these cases, and where a good case was made out the work could be carried out. There was a project for a considerable scheme of building new Government offices in Whitehall. He did not think this was a time when it would be appropriate to build new offices in Whitehall, but that was no reason why they should delay the preparation of the schemes so that they might not have to wait when the time came and this could be undertaken properly.

Later, Sir Hilton Young said that the general policy of the Government in regard to housing was well known. It was a definite policy of expansion, because he firmly believed that by getting rid of the competition of subsidized houses they were opening the way to housing forces which would occupy more capital and labour than were ever occupied under the subsidy system. The Government had seized the opportunity to call for a concentrated national effort to get rid of that deep national stain, the stain of the slums. The opportunity was in the Bill which was now before Parliament and which put the housing authorities in a position far more favourable than they had ever been in recent practical politics. The Moyne Committee was now gathering the essential evidence of the housing experts as to what might be done by reconditioning. It was essential that, if they were to succeed, they should do the work within a limited time. The Government programme could not be carried out under five years, but if they could really occupy the full housing activities of the local authorities in a determined effort at slum clearance, it would be 100 times bigger than almost any other effort. It could occupy capital and labour in a degree infinitely greater than many of the other minor things which they had been considering.

Unemployed in the Building Industry

In reply to Mr. Hicks, Sir Henry Betterton, the Minister of Labour, gave the following table showing the insured persons in the building industry classification recorded as unemployed in Great Britain :—

Occupation	Feb. 20, 1933	Feb. 22, 1932	Feb. 23, 1931
Carpenters ..	38,710	37,830	28,414
Bricklayers ..	25,862	22,915	14,617
Masons	6,949	5,300	4,222
Slaters	2,349	1,997	1,605
Plasterers ..	10,425	8,212	6,273
Painters ..	48,347	49,803	40,188
Plumbers ..	9,633	10,124	6,969
Labourers to above.. ..	77,445	72,957	55,659
All other Occupations	67,487	62,977	49,791
Totals ..	297,207	272,115	207,738

Revenue-Producing Schemes

Mr. Peat asked the Minister of Health how many schemes of a revenue-producing character had been brought to his attention by local authorities since January 1, 1933; and which of these schemes had been approved by His Majesty's Government.

Sir Hilton Young said he could not readily give the number of applications, but, including housing, revenue-producing schemes to a total of £3,900,000 submitted by 567 authorities had been sanctioned by him since the beginning of this year.

Working-Class Houses

Mr. Bossom asked the Minister of Health whether he intended making any arrangements to ensure that working-class houses which might be financed largely by building societies, as contemplated in the recent Housing Act, should be required to maintain a higher standard of appearance and design than had frequently characterized many houses so financed in the past.

Sir Hilton Young said he understood the building societies and local authorities to be well aware of the importance of maintaining the improvement of the standard of houses for the working classes which had been secured in recent years.

Cost of Houses

Sir Francis Fremantle asked the Minister of Health if he would state what rent, excluding local rates, an investor would have to charge for a house costing £360 on which he had borrowed 90 per cent. from a building society under the arrangements proposed in the new Bill; and what would be the similar rent of a house costing £320.

Mr. Shakespeare said that on a house costing £360 the sum of 8s. a week would enable an investor to repay the 90 per cent. loan in a period of 30 years and provide a return of 6 per cent. on his own share (10 per cent.) of the cost of the house during that time. An addition of 2s. a week would cover maintenance, etc., and leave a margin in the early years. A rent of 10s. a week would, therefore, be sufficient for these purposes, and after 30 years the only charge on the rent would be cost of maintenance. On a house costing £320 the corresponding rent would be about 9s. 2d. a week.

Subsidized Council Houses

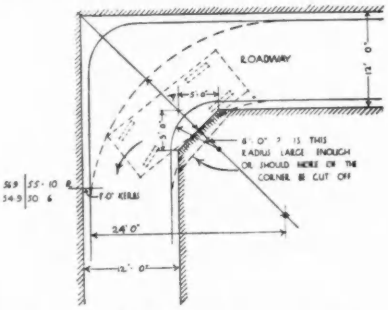
Sir Percy Hurd asked if the Ministry was sanctioning the building of further subsidized council houses in rural areas; and, if so, on what conditions as to cost, rent and accommodation.

Mr. Shakespeare said it was. The houses were, of course, subject to the statutory conditions of the Housing (Financial Provisions) Act, 1924, the Housing Act, 1930, or the Housing (Rural Authorities) Act, 1931, as the case might be. The cost was kept as low as possible, and the houses were normally of the three-bedroomed type. The rent of the houses was determined by their cost and the appropriate statutory conditions. In the case of houses erected under the Act of 1931, the rent aimed at is 3s. to 4s. exclusive of rates.

QUESTIONS THAT ARISE

Motor Car Data

¶ "Cornered" writes: "*With reference to your Information Sheet No. 7 in the JOURNAL for March 1, I have a case in point on a job where a 12 ft. roadway goes through the site, with a right-angle bend. A sketch of this bend is enclosed herewith. I shall be very grateful if your expert can give me any information which can decide for me the necessary internal radius of this bend, in order to enable a normal car to pass round.*


ROADWAY
12' 0"
5' 0"
5' 0"
8' 0" ? IS THIS RADIUS LARGE ENOUGH OR SHOULD MORE OF THE CORNER BE CUT OFF
56.9 | 55.10
54.9 | 50 6
1' 0" KERBS
24' 0"
12' 0"

"*The roadway is not intended for commercial vehicles, and a Daimler, measuring 17 ft. long by 6 ft. 6 in. wide, would, I think, be the largest car requiring to use this road and no objection will be taken to the necessity of completely locking the wheel, in order to go round the bend.*"

I have shown, by means of dotted lines on your correspondent's sketch, the position of a car at the corner of the roadway, which demonstrates exactly what he will have to do with the corner of his building.

F. L.

Waterproofing a Brick Wall

[Following is an enquiry recently submitted to the Building Research Station, together with the Station's reply. This subject was held over from the section "In That Contingency" in our last issue.]

¶ *Driving rain was penetrating the south-west wall of a building in a very exposed position, and the architects were considering the use of a proprietary colourless waterproofer, but first desired the opinion of the Station as to the efficacy of such treatment. The wall was of multi-coloured bricks, with stone dressings, built in mortar composed of 1 part lime, 1 part Portland cement to 6 parts of sand; the pointing was composed of 1 part lime and 1 part cement to 3 parts of sand. It was the opinion of the architects that the joints were responsible for the penetration rather than the bricks.*

It should be mentioned at the outset that the period over which a satisfactory degree of damp-proofing is to be expected from most colourless treatments is limited. The Station is at present engaged in testing a number of representative types of waterproofers, both on a special test wall and in the laboratory, and it has been found that out of eight different colourless proprietary waterproofers, six were fairly effective when first applied, but after 12 months' exposure to the weather only two retained any appreciable quality, and even these showed definite deterioration.

In spite of the apparently discouraging nature of these results, however, it is possible that in practice a colourless waterproofer, in addition to having a temporary damp-proofing effect, may serve some useful purpose by accelerating the formation of the weathered face. The closing up of the pores by the deposition on the surface of solid particles from the atmosphere is likely to be aided by the presence of the waterproofing material, and although the latter may break down in time under exposure, it may not necessarily be entirely valueless on this account. Nevertheless it should be borne in mind that it may be necessary to repeat the treatment at intervals.

It is noted with special interest that from observation on the site the joints are suspected to be more responsible for the dampness than the bricks. In this connection the tests carried out at this Station, as well as those of other investigators, have indicated that in many cases damp penetrates brickwork not so much by reason of the permeability of the bricks or the mortar, as by way of minute cracks which form on account of shrinkage or failure of the mortar to bond closely with the brick. It has been found, for example, that moisture may pass through brickwork in Portland cement mortar more easily than through that in lime mortar, on account of the greater shrinkage of the former.

In this particular case the lime used is not highly plastic or "fat" and this, coupled with the somewhat lean mix used both for the mortar and pointing, may render these somewhat permeable. In addition, it has been found that the "shorter" the mortar mix, the more likely is it that cracks will develop between the mortar and the bricks. This is due partly to the rate of drying of the mortar being accelerated by suction and the absence of "butteriness," which makes for a good bond between mortar and brick.

The only really effective waterproofing treatment in such a case would be one that covers the joint with an impervious film, and in applying any surface treatment, therefore, it is recommended that special attention should be paid to the joints.

It would, of course, be desirable to delay treatment until the summer in order to allow the walls to dry out as much as possible before applying any surface coating. By so doing a greater degree of penetration will be ensured and there will be less risk of internal trouble from imprisoned moisture.

J. Williamson, A.R.I.B.A., who has recently been elected chairman of the South Wales Institute of Architects (Central Branch) for the 1933-34 session.

SOCIETIES AND INSTITUTIONS

PLANNING SCHEMES AND ECONOMY

TOWN AND COUNTRY PLANNING ACT. By F. Longstreth Thompson, B.SC., A.M.INST.C.E. Suffolk Preservation Society. March 16.

I would say that far from the planning of town and country being an expense, even in these hard times, I think it is definitely the experience of those who have made planning schemes that it is a very great economy; and far from being an extravagance that we ought to do without. I think it is, on the contrary, an economy we simply cannot afford to omit. In my view, planning is one of the most important factors in the social and economic rehabilitation of this country which we all so ardently desire.

THE SOUTH WALES INSTITUTE OF ARCHITECTS

The annual general meeting of the South Wales Institute of Architects (Central Branch) was held at Cardiff on March 16.

The hon. treasurer's report and balance sheet, showing the healthy financial condition of the Branch, were read and confirmed.

The following officers and members of the Executive Committee were elected for the coming session:

Chairman: Mr. J. Williamson, A.R.I.B.A.; hon. treasurer: Mr. H. Teather, F.R.I.B.A.; hon. secretary: Mr. W. S. Purchon, M.A., A.R.I.B.A.; Executive Committee: Messrs. H. Norman Edwards, Gordon Griffiths, A.M.T.P.I., Ivor Jones, A.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., and Percy Thomas, F.R.I.B.A. Representatives of Associates and Students: Messrs. Trevor Hill and F. G. Allen.

The following were elected as members of the Council of the South Wales Institute of Architects:

Messrs. Percy Thomas, F.R.I.B.A., H. Norman Edwards, T. Alwyn Lloyd, F.R.I.B.A., Gordon Griffiths, A.M.T.P.I., W. S. Purchon, M.A., A.R.I.B.A., T. Edgar Smith, A. J. Hayes, Lewis John, M.A., A.R.I.B.A., J. A. Hallam, H. Fletcher, C. F. Jones, A.R.I.B.A. Representatives of Associates and Students: Messrs. Trevor Hill and F. G. Allen.

BAN ON WOMEN

The Royal Incorporation of Architects in Scotland (Glasgow Chapter), at a meeting held on March 15, decided to hold an annual dinner next winter, and also passed a motion that "no women friends should be present at the dinner."

EDINBURGH ARCHITECTS

At the annual meeting of the Edinburgh Architectural Association Mr. James A. Arnott, F.R.I.B.A., was reappointed president for the ensuing year. Other officers are as follows:

Vice-presidents: Messrs. Balfour Paul and Reginald Fairlie. Messrs. Alfred Greig, J. R. M'Kay, P. R. M'Laren. T. C. Marwick, John F. Matthew, W. T. P. Bryce, G. S. Taylor, and J. D. Carnegie have been added to the Council *vice* members retired, while Messrs. Lorne Campbell, Wilson Paterson, John Wilson, and G. S. Taylor were appointed, along with the office bearers, as Chapter representatives to the Council of the Royal Incorporation of Architects in Scotland.

UNIVERSITY COLLEGE, LONDON

The annual report of the Committee of University College, London, for the year ending in February, 1933, has just been issued.

The number of students on the books

of the College last session was 3,038. The College has for many years taken an active part in promoting adult education by providing public lectures that are open without fee. The aggregate attendance at these lectures during the Session 1931-32 was about 43,500.

The income of the Establishment Account amounted to £225,665, £76,202 being provided by fees, £38,740 by income from endowments, £100,068 by the recurrent grant from the Court of the University, and the balance by sundry grants and donations.

LAW REPORT

LIABILITY FOR DEFECTIVE GUTTERING

Cunard v. *Antifyre, Ltd.—King's Bench Divisional Court. Before Justices Acton and Talbot.*

IN this case the plaintiffs, Mr. and Mrs. Basil Cunard, of 14, Orange Street, Haymarket, appealed against a decision of Judge Tobin, sitting at the Westminster County Court, in favour of Antifyre, Ltd., in an action they brought against the company for damages for personal injuries sustained by Mrs. Cunard in December, 1931, by a heavy piece of guttering falling through a glass roof which covered the plaintiffs' kitchen.

Mr. Mulligan said the defendants were tenants of the house and they let certain of the floors above to a tenant, who in turn sub-let the third floor as a flat to the plaintiffs. Owing to the fall of the gutter Mrs. Cunard sustained head injuries. The County Court Judge gave judgment for the company, holding that there was no duty owing by them to the plaintiffs to take steps to prevent the guttering becoming a nuisance or to take care to see it was reasonably safe.

Counsel said the grounds of appeal were that the learned Judge in the Court below was wrong in law in holding that there was no duty on the company to prevent the guttering becoming a nuisance to his clients, and that he misdirected himself in holding that he need not consider or adjudicate upon evidence given by plaintiffs, that the company, with reasonable care, should have known that the guttering was in such a dangerous condition as to constitute a nuisance.

Mr. G. Howard, for the company, supported the judgment of the County Court Judge.

The Court held that the judgment of Judge Tobin must be set aside, and the case remitted to him to enter judgment for plaintiffs for the amount found due to them, unless the parties could agree on a sum.

Mr. Justice Talbot, in his judgment, said the Court had no doubt that the defendants were lessees of the whole building. With regard to the guttering, there was evidence that it had never been properly supported, and this was obvious to anybody who looked at it. Without repair it could not have been expected to last for a period of ten years. The Court thought that some confusion had arisen in the case owing to the use by the plaintiffs of the word "nuisance." In their opinion the word was incorrect, and the true cause of action was for negligence for failure by the defendants to take reasonable care to see that the property did not get into such a state as to be a danger to persons lawfully in and about it. The appeal as it stood was good, as a nuisance could be caused by negligence. It was well to bear in mind that the two classes of case were different, and that the evidence to support them was also different. In His Lordship's view it would be difficult to call a man prudent or reasonable, who, having heavy guttering over a glass roof, did not take reasonable steps to prevent it from falling. Under those circumstances the appeal would be allowed, with costs.

Mr. Justice Acton concurred.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors, and some of the subcontractors for the buildings illustrated in this issue:

Royal Hospital School, Holbrook (pages 416, 425-429). General contractors, J. Gerrard and Sons, Ltd., also contractors for roads, excavation, foundations and damp courses, concrete blocks, reinforced concrete, partitions, woodblock flooring, gasfitting, plumbing, joinery, stone work, furniture, school fittings; William Blaze, Allan Howes, Herman Cawthra, J. A. Stevenson, sculptors; Henry Lea and Sons, consultant engineers for the heating and lighting; Mr. Vaux Graham, consultant engineer for water supply; Mr. Hope Bagenal, consultant for acoustics. Sub-contractors: The Birmingham Guild, metal work; C. Isler & Co., well boring; Christiani and Nielsen, piling; Tuke and Bell, Ltd., sewage disposal; Worthington-Simpson, Ltd., water pumping; Paterson Engineering Co., Ltd., water aeration and filtration plant to swimming bath; Barford and Perkins, Ltd., kitchen equipment; Baker Perkins, Ltd., bakery and laundry equipment; James Slater & Co. (Engineers), Ltd., hospital equipment; Constable Hart & Co., Ltd., road surfacing; Revo Electric Co., Ltd., outside lamp standards and brackets; Ragusa Asphalt Paving Co., Ltd., asphalt; British Reinforced Concrete Engineering Co., Ltd., reinforced concrete; Blockleys, Ltd., facing bricks; Herbert Alexander & Co., Ltd., sand lime bricks; Bath and Portland Stone Co., Ltd., stone; Emerson and Norris, Ltd., artificial stone; S. Williams and Sons, Ltd., artificial stone margins, steppings and paving; Rubery Owen & Co., Ltd., structural steel; Ames and Finnis, roof tiling; Henry Hope and Sons, Ltd., patent glazing, door furniture, steel casements, window furniture; Brightside Foundry and Engineering Co., Ltd., central heating and ventilation; Samuel Smith and Sons, Ltd., stoves; Griffin Foundry Co., Ltd., Bratt Colbran & Co., Ltd., and Geo. Wright (London), Ltd., grates and mantels; Aerogen Co., Ltd., gas plant; Edwin Danks & Co. (Oldbury), Ltd., boilers; T. Clarke & Co., Ltd., electric light wiring, electric light fixtures, electric bells, telephones; Synchronome Co., Ltd., electric wiring for clocks; Smith and Ansell, Ltd., electric light fixtures; Richard Crittall & Co., Ltd., panel heating; Shanks & Co., Ltd., Leeds Fireclay Co., Ltd., Dent and Hellyer, Ltd., and Adamsez, Ltd., sanitary fittings; Gillett and Johnston, Ltd., tower chimes and clocks; Walter Macfarlane & Co., Ltd., cast iron grilles; J. and E. Hall, Ltd., refrigerating plant; Haywards, Ltd., iron staircases; Doulton & Co., Ltd., drain pipes, etc.; Adams Brothers (Liverpool), Ltd., plaster and decorative plaster in dining hall; Gilbert Seale and Sons, Ltd., decorative plaster in assembly and entrance halls; John Tanner and Son, Ltd., decorative plaster in chapel; John Stubbs and Sons, marble; Craven Dunnill & Co., Ltd., wall tiling; F. Brown and Son, Ltd., plain roof tiling; The Bennet Furnishing Co., Ltd., school fittings; Herbert Morris, Ltd., lifts; United Water Softeners, Ltd., water-softening plant; London Brick Co. and Forders, Ltd., bricks for structural brickwork.

Enfield West Station (pages 435-439, and supplement). General contractors: Wm. Shurmur and Sons, Ltd. Sub-contractors: General Asphalte Co., Ltd., dampcourses and asphalt; Ames and Finnis, Ltd., bricks; Brookes, Ltd., granite; Liverpool Artificial Stone Co.; artificial stone; Rubery Owen & Co., Ltd., structural steel; Carter & Co., Ltd., and Art Pavements and Decorations, Ltd., patent flooring and tiling; Light Steelwork, Ltd., electric light fixtures and folding gates; Frederick Braby & Co., Ltd., electric heating; Doulton & Co., Ltd., sanitary fittings; James Gibbons & Co., Ltd., door furniture; C. E. Welstead, Ltd., casements and window furniture; Pollard & Co., Ltd., rolling shutters, shop fittings and signs; J. E. Pearson (Birmingham), Ltd., metalwork; J. P. White and Sons, Ltd., flush doors; Carter & Co., Ltd., tiling.

House at Chandler's Ford, Hants. (page 441). General contractor, H. G. Ross.

OBITUARY

J. C. NICHOL

We regret to record the death of Mr. John C. Nichol, F.R.I.B.A., of Birmingham. He was in his eighty-sixth year and was in practice at 117 Colmore Row, Birmingham, under the style of Nichol and Nichol, until the time of his death.

Mr. Nichol spent many years abroad before settling in Birmingham. He was apprenticed in Aberdeen and after practising in Edinburgh went to New Zealand. Later he went to San Francisco, Chicago and New York.

He joined Mr. Oliver Essex in partnership in Birmingham in 1887 and the firm was responsible for the erection of the Municipal Technical School. During the period the firm was known as Essex, Nichol and Goodman. Subsequently the partnership was dissolved and Mr. Nichol and his son practised as Nichol and Nichol.

J. C. POTTER

We regret to record the death of Mr. William Joseph Potter, a Director of Messrs. W. T. Henley's Telegraph Works, Co., Ltd., which occurred on March 14 after a severe attack of pneumonia. The funeral took place at Golders Green Crematorium on March 18. A large assembly of business and personal friends and members of the staff were present.

Mr. Potter joined Henley's as Town Traveller on May 7, 1888; thus he had nearly forty-six years' association with the company. He was Secretary of Henley's Telegraph Works (S. Africa) Co., Ltd., from 1903 to 1914, and he was an original Trustee of the Staff Pension Fund, retiring from that position on April 29, 1932. Mr. Potter was appointed a Director of the company in May, 1913. He retired from his Staff position on March 31, 1932, but continued in his capacity as a Director.

Mr. Potter was one of the most popular personalities associated with Henley's, both in regard to the Staff and the company's many business friends.

A Recent Will

Miss Henrietta May Poynter, of Oxford, daughter of Ambrose Poynter, architect, left estate of the gross value of £4,715, with net personalty £3,790. Her bequests included the following:

£500 to the Royal Academy of Arts, the income to be applied in the purchase of books for a promising student in architecture, selected by the President, the books to be inscribed, "In memory of Ambrose Poynter, Architect, given by his daughter, H. M. Poynter."

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the ACTON Corporation : Six flats, Acacia Road, for Mr. F. C. Pollard ; eight houses, Western Avenue, for Messrs. J. Atherton & Co. ; alterations and additions, Red Lion Hotel, Uxbridge Road, for Messrs. Fuller, Smith and Turner ; 52 houses, Ashfield Road, for Mr. L. E. Marsh ; factories for Messrs. Sengate and Ingate, Ltd., in Western Avenue, and factory for Messrs. Allnatt, Ltd,. Minerva Road, for Mr. F. E. Simpkins ; various factories for Mr. F. E. Simpkins ; two factories, Victoria Road, for Messrs. H. Butcher & Co. ; alterations, 139 High Street, for Westminster Bank, Ltd.

The BATTERSEA B.C. is to erect two blocks of flats, one a three-storied block of nine three-roomed flats on the Holgate Avenue frontage, the other a four-storied block of eight four-roomed flats on the York Road frontage.

Plans passed by the CATERHAM U.D.C. : Two houses, Church Road, Warlingham, for Mr. A. E. Sabey ; seven houses, Milton Road, for Messrs. W. Cottage, Ltd. ; four houses, Limpsfield Road, for Messrs. Bridge, Doran & Co. ; 79 houses, Markfield Estate, for Mr. F. W. Thomas ; office extension for U.D.C. ; four. houses, St. Michael's Road, for Mr. W. R. Quested ; shops, High Street, for Mr. G. W. Hitchcox.

Plans passed by the CROYDON Corporation : Seven houses, South Way, 17 houses, Devonshire Way, and five houses, Bennetts Avenue, for Gower Builders (London), Ltd. ; 28 houses, Cypress Road, for Messrs. Martin and Saunders; alterations and additions, 46-8 Westow Street, for Messrs. J. and C. Bowyer, Ltd. ; alterations and additions, St. Joseph's R.C. School, Crown Hill, for Messrs, F. K. A. Walters and Son ; 20 houses, Woodside Green, for Mr. J. H. Martin ; 55 houses, Michael Road, for Mr. P. Richardson ; two houses, Wickham Avenue, for Mr. H. Miller ; two houses, Devonshire Way, for Messrs. Wylie and Berlyn, Ltd. ; three houses, Ballards Way, for Mr. G. W. Peachey ; four houses, Napier Road, for Mr. L. Geis ; two bungalows, Orchard Way, for Messrs. E. B. Hart & Co. ; alterations and additions, 63 North End, for Messrs. North, Robin and Wilsdon ; three houses, Pollards Hill South, for Mr. H. Macintosh.

Plans passed at PURLEY : Extensions to hall, Whytecliffe Road, for Mr. C. Plater ; two houses, Famet Avenue, for Messrs. E. T. Brown and Son ; two houses, Downlands Road, for Mr. P. Richardson ; two houses, Haydn Avenue, for Mr. H. W. Lee.

The Middlesex C.C. is to erect a pavilion block for 50 patients at the SHENLEY mental colony, at a cost of £10,200.

Plans passed by the STOKE NEWINGTON B.C. : Three-story building and garage buildings, corner Hermitage Road and Eade Road, for Mr. N. Steinberger ; three houses, St. Andrew's Road, for Mr. C. K. Codrington ; four houses, Bethune Road, for G. C. Wimbourne ; additions 71-3, Church Street, for Mr. A. W. Pipe.

The Herts C.C. is to improve and enlarge the Western House Institution, WARE, at a cost of £33,965.

The Herts Education Committee is to enlarge the Parkgate Road school, WATFORD, at a cost of £2,410.

SOUTHERN COUNTIES

Plans passed by the BRIGHTON Corporation : Rebuilding Victoria Beerhouse, High Street, Rottingdean, for Rock Brewery (Brighton), Ltd. ; 40 houses, Ladies Mile estate, Patcham, for Messrs. G. Ferguson and Son ; offices and flats, Russell Square, for Messrs. Moore of Brighton, Ltd. ; 34 houses, Carden Avenue estate, for Messrs. Braybons, Ltd. ; 18 houses, Graham Avenue, Withdean, for Mr. T. G. Thompson ; cinema, St. Georges Road, for Cinema Service, Ltd. ; cinema, Gloucester Place, for Astoria (Brighton), Ltd. ; rebuilding, 20-2 Marlborough Place for Citizens Permanent Building Society ; alterations and additions, 30 Crown Gardens, for Sussex Masonic Temple Committee ; two houses, Channel View Road, for Mr. A. C. Tomsett ; five houses, Varndean gardens, for Mr. H. Nixon.

Plans passed by the FARNHAM U.D.C. : Three houses, Broomleaf Road, for Mr. R. W. Hards ; two houses, Beavers Hill, for Mr. E. Johnson ; alterations, 117 West Street, for Messrs. Liptons, Ltd. : two houses, Rowhills estate, for Mr. R. E. Symonds.

The Kent C.C. Education Committee is seeking sanction for a loan of £43,000 for the erection of new buildings at GRAVESEND County School for Boys.

Plans passed by the GRAVESEND Corporation : Two houses, Singlewell Road, for Mr. T. Bennett ; two houses, Milton Hall estate, for Mr. S. Bridger ; alterations, 55 High Street, for Messrs. Freeman, Hardy and Willis, Ltd.

The Hampshire Education Committee is to erect a senior school for 360 at HARDLEY, at a cost of £10,300.

The HASTINGS Corporation has obtained sanction to borrow £7,000 for the provision of a boating lake at the East Parade.

Plans passed at NEWBURY : Two houses, Mill Lane, for Mr. C. Durnford ; two houses, Craven Road, for Messrs. F. and A. Cooke ; conversion of "Riverside," West Mills, into two flats, for Messrs. Hoskings and Pond ; three houses, off St. Nicholas Road, for Mr. T. C. Pembroke.

SOUTH-WESTERN COUNTIES

Plans passed by the PAIGNTON U.D.C. : Seven houses, Tweenway Lane, for Mr. G. W. Cornelius ; additions, Victoria Street, for Messrs. F. W. Woolworth & Co., Ltd. ; two houses, Horseshoe Bend, for Coasts Estates, Ltd., ; two houses, South Hillside Road, for Mr. A. Langler ; shop and shelter, Shorton Road, for Paignton Land Development Co., Ltd. ; two houses, Waterside Road, for Mr. F. G. Stockman.

Plans passed by the TORQUAY Corporation : Alterations, Greyfriars, St. Lukes Road, for Mrs. Jarman ; alterations, Club House, Petitor Road, for Torquay and South Golf Club ; two houses, Marldon Road, for Mr. F. Radford ; alterations to premises adjoining Old Malt House, Temperance Street, for Mr. T. J. Crossman ; two houses, Cedar Court Estate, for Messrs. H. Lloyd and Son ; alterations, Watcombe Hall, off Teignmouth Road, for Mrs. Blakeley Marillier ; 10 houses, Barton Garden City, for Messrs. H. Lloyd and Son.

Plans passed by the TORQUAY Corporation : Inland Revenue Offices, Torwood Gardens Road, for Office of Works ; six houses, Florida Road, for Mr. F. White ; two houses, Cedar Court estate, for Messrs. H. Lloyd and Son ; four houses, Florida Road, for Mr. P. G. Cavanna ; two bungalows, Edgley Road, Barton, for Mr. J. R. Stubbs ; sub-station, Cedar Court estate, for Corporation electricity department.

EASTERN COUNTRIES

Plans passed by the LOWESTOFT Corporation : Two cottages, Somerleyton Road, for Mr. F. G. Reeve ; house and shop, Colville Road, Oulton Broad, for Mr. G. A. Gaze ; alteration to "The Playhouse," London Road South, for Mr. F. C. Symonds.

MIDLAND COUNTIES

The BEDFORD Corporation is to erect 100 houses on the London Road estate.

Plans passed by the BEDFORD Corporation : Two houses, Shakespeare Road, for Mr. A. Garrity ; two houses, Raleigh Street, for Mr. A. C. Henman ; alterations, 15 Newnham Street, for Messrs. Usher and Anthony ; two houses, Irwin Road, for Mr. F. Corby ; five houses, Iddesleigh Road, for Mr. G. J. Tucker.

The BIRMINGHAM Corporation is to erect a branch library at Perry Common, at a cost of £14,385.

The BIRMINGHAM Corporation Watch Committee reports that the modified scheme for the erection of a new central fire station will cost £143,494.

Plans passed by the CHESTERFIELD Corporation : Electricity sub-station, Tapton Park for Staveley Coal and Iron Co., Ltd. ; extension, Drill Hall, Ashgate Road, for Territorial Association ; four houses, Smithfield Avenue, for Mr. A. Smith ; two houses, Chester Street, for Messrs. Clarke Bros. ; 88 houses, vicinity of Newbold Road, for Messrs. J. H. Naylor and Son ; shop, Springfield Avenue, for Mr. A. Fearn ; shop, Heaton Street, for Mr. W. Rhodes.

At the CHESTERFIELD Corporation it was reported that the aviation department of the Automobile Association was unable to recommend the proposed site at Hady Hill in view of the cost, amounting to about £60,000, of levelling, and that the Regional Planning Committee was now considering the reservation of a site at Bolsover.

Plans passed by the SEDGLEY U.D.C. : Two houses, Robert Street, for Mr. Russell ; three houses, Goldthorn Hill, for Messrs. A. L. and A. A. Moore ; two houses, Ward Road, for Messrs. Timmins and Davies ; two houses, Dudding Road, for Mr. E. M. Minty ; transformer house, Thurls Hill Estate, for Midland Electric Corporation for Power Distribution, Ltd. ; two houses, Dudley Road, for Mr. G. Sheldon.

The SHREWSBURY Education Committee is to erect a school for 150 infants on the Racecourse Crescent site, at a cost of £4,375. Mr. W. A. Sherratt is to erect 79 houses in Copthorne Road, in the Atcham rural district, near Shrewsbury.

The STOKE-ON-TRENT Corporation Baths Committee is to prepare plans for the reconstruction of the first-class swimming bath at the Longton baths.

The Ministry of Health has approved the proposals of STOKE-ON-TRENT Corporation to grant subsidies to the Sutton Trustees and to Messrs. Taylor, Shaw and Bromley for the erection of 400 houses and flats on the Greasleyside Estate, Abbey Hulton, and 56 houses at Cobridge Road, Hanley, respectively.

NORTHERN COUNTIES

The BARROW-IN-FURNESS Corporation has obtained sanction to borrow £5,600 for the erection of a central child welfare centre and dental clinic.

The BLYTH Corporation is to proceed with the erection of 200 houses on the South Farm Estate.

The MANCHESTER Corporation recommends the erection of a new central police headquarters in Jacksons Row, at a cost of £98,970.

The RAWTENSTALL Corporation is to proceed with a scheme for the erection of 50 houses for aged couples.

Plans passed by the SHEFFIELD Corporation : Eight houses, Cawthorne Grove, for Mr. W. A. Wright ; conversion of house into two houses, Abbeyfield and Scott Roads, for Mr. W. Turner; two houses, Whirlow Court Road, for Mr. W. C. Mander ; two houses, Hastings Road, for Mr. James Marsh ; two houses, Slayleigh Avenue, for Mr. J. W. Sivil ; six houses, Glencoe Road, for Mr. D. Thompson ; house, Ecclesall Road, for Mr. W. Green ; 51 houses, Maple Grove, for Miss I. M. Helliwell ; 10 houses, Gleadless, for Messrs. A. and E. Tate ; five houses, Millhouses Lane, for Mr. W. and E. Sadler, Ltd. ; four houses, Cross Lane, for Mr. F. A. Ridal ; four houses, High Storrs Road, for Mr. J. Vickers ; four houses, Prince of Wales Road, for Messrs. W. and E. Sadler, Ltd. ; four houses, Ringinglowe Road, for Mr. R. S. Hutchinson ; two houses, Brooco Bank, for Mr. A. T. Hardcastle ; 13 flats, Smithy Wood Road, for Messrs. Abbott and Bannister, Ltd. ; two houses, Whirlowdale Road, for Mr. E. Walker ; house, shop and garage, Lydgate Lane, for Mr. J. W. Waller ; eight houses, Halesworth Road, for Mr. H. C. Hornbuckle ; two houses, Chesterfield Road, for Mr. C. H. Beardow ; two houses and three shops, Hartley Brook Road, for Mr. J. Maxfield ; two houses, Knowle Lane, for Mr. G. M. Taylor.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath ..	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B_3	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¾
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_2	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¾
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¾
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	„		1	7
Joiner	„		1	7
Machinist	„		1	8
Mason (Banker)	„		1	7
„ (Fixer)	„		1	8
Plumber	„		1	7
Painter	„		1	6
Paperhanger	„		1	6
Glazier	„		1	7
Slater	„		1	7
Scaffolder	„		1	3
Timberman	„		1	3
Navvy	„		1	2¼
General Labourer	„		1	2¼
Lorryman	„		1	5
Crane Driver	„		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	2	16	0
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾″ Crushed Ballast	„		8	9
Building Sand	„		8	6
Washed Sand	„		10	9
2″ Broken Brick	„		9	6
¾″ „ „	„		12	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4″		6″	
		s.	d.	s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾″ Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	„	15	3	24	0
Single junctions	„	9	3	18	0
Double junctions	„	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	7	7	6
Red Rubbers for Arches	„	13	16	0
Multicoloured Facings	„	8	17	6
Luton Facings	„	8	10	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, *Add*	„	2	0	0
„ Other Colours	„	5	10	0
2″ Breeze Partition Blocks	per Y.S.		1	8
2½″ „ „ „	„		1	11
3″ „ „ „	„		2	2
4″ „ „ „	„		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ „ Sawn templates	„	7	6
„ „ Paving, 2″	F.S.	1	8
„ „ „ 3″	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24″ × 12″ Duchesses	per M.	26	10	0
22″ × 12″ Marchionesses	„	26	0	0
20″ × 10″ Countesses	„	19	5	0
18″ × 10″ Viscountesses	„	15	17	6
18″ × 9″ Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20″ × 10″ medium grey	per 1,000 (actual)	26	0	0
„ green	„ „	27	15	0
Best machine roofing tiles	„	5	0	0
Best hand-made do.	„	5	10	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		2	0

CARPENTER AND JOINER

				s.	d.
Good carcassing timber		F.C.		2	2
Birch		as 1″ F.S.			9
Deal, Joiner's		„ „			5
„ „ 2nds		„ „			4
Mahogany, Honduras		„ „		1	3
„ African		„ „		1	1
„ Cuban		„ „		2	6
Oak, plain American		„ „		1	0
„ Figured „		„ „		1	3
„ Plain Japanese		„ „		1	2
„ Figured „		„ „		1	5
„ Austrian wainscot		„ „		1	6
„ English		„ „		1	11
Pine, Yellow		„ „		1	0
„ Oregon		„ „			4
„ British Columbian		„ „			4
Teak, Moulmein		„ „		1	3
„ Burma		„ „		1	2
Walnut, American		„ „		2	3
„ French		„ „		2	3
Whitewood, American		„ „		1	1
Deal floorings,	¾″	Sq.		19	0
„	⅞″	„	1	1	6
„	1″	„	1	3	6
„	1¼″	„	1	7	6
„	1½″	„	1	12	0
Deal matchings	⅝″	„		14	0
„	¾″	„		15	6
„	1″	„	1	4	0
Rough boarding	¾″	„		16	0
„	1″	„		18	0
„	1½″	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16″			¼″			⅜″			½″		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼″	½″	1″	1¼″	2″
Tubes, 2′-14′ long, per ft. run		4	5½	9¼	1/1	1/10
Pieces, 12″-23½″ long	each	10	1/1	1/11	2/8	4/9
„ 3″-11½″ long	„	7	9	1/3	1/8	3/-
Long screws, 12″-23½″ long	„	11	1/3	2/2	2/10	5/3
„ „ 3″-11½″ long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	62½	Galvanized gas	50
Water	58¾	„ water	45
Steam	55	„ steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

			s.	d.
Rolled steel joists cut to length		cwt.	10	9
Mild steel reinforcing rods,	⅜″	„	8	6
„ „	½″	„	8	3
„ „	⅝″	„	8	0
„ „	¾″	„	7	6
„ „	⅞″	„	7	6
„ „	1″	„	7	6
„ „	1¼″	„	7	6
„ „	1½″	„	7	6

		3″		4″	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9″ offsets	„	4	0	6	3
Plinth bends, 4½″ to 6″	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
„ drawn pipes	„	1	0	6
„ soil pipe	„	1	3	6
„ scrap	„		9	6
Solder, plumbers'	lb.			11
„ fine do.	„		1	3
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3″		4″		6″	
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	„	2	10	6
„ fine	„	4	15	0
Hydrated lime	„	2	16	0
Sirapite	„	3	10	0
Keene's cement	„	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2⅞
„ „ 26 oz. „ „ „	„			3¾
Arctic glass, white	„			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„			6⅛
¼″ Hartley's rough rolled	„			7
¼″ „ wired cast	„			10
¼″ Georgian wired cast	„			11
¼″ Polished plate, n/e 1 ft.	„	†7½	to	‡1 0
„ „ 2	„	†10	„	‡1 3¼
„ „ 3	„	†1 4½	„	‡1 10
„ „ 4	„	†1 11	„	‡2 4
„ „ 6	„	†2 3	„	‡2 7½
„ „ 8	„	†2 5	„	‡3 0½
„ „ 12	„	†2 10	„	‡3 3½
„ „ 20	„	†3 3½	„	‡3 9
„ „ 45	„	†3 6½	„	‡4 0½
„ „ 65	„	†3 11½	„	‡4 4
„ „ 90	„	†4 4	„	‡4 9
„ „ 100	„	†4 6	„	‡4 11
Vita glass, sheet n/e 1 ft.	„			1 0
„ „ „ „ 2	„			1 3
„ „ „ over 2	„			1 9
„ „ plate, n/e 1 ft.	„			1 6
„ „ „ 2	„			3 0
„ „ „ 5	„			4 0
„ „ „ 7	„			5 0
„ „ „ 15	„			6 0
„ „ „ over 15	„			7 6
Putty, linseed oil	lb.			3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	„		2	8
Turpentine	„		4	7
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
„ to form basement n/e 5' 0" deep and cart away	„		9	6
„ „ 10' 0" deep and cart away	„		10	0
„ „ 15' 0" deep and cart away	„		10	6
If in stiff clay add	„		3	0
If in underpinning „	„		5	0
Digging, return, fill and ram „	„		4	6
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			6
„ „ to trenches	„			6
„ „ extra, only if left in	„			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	„	1	9	6
„ „ „ (4-2-1)	„	1	14	6
„ „ „ underpinning	„	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions	„	3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
„ „ in cement	„	32	0	0
„ Stocks in cement	„	39	15	0
„ Blues in cement	„	57	10	0
Extra only for circular on plan	„	2	15	0
„ backing to masonry	„	1	15	0
„ raising on old walls	„	2	15	0
„ underpinning	„	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	„			6
„ „ „ red brick facings and pointing	„		1	0
„ „ „ blue brick facings and pointing	„		1	6
„ „ „ glazed brick facings and pointing	„		3	9
Tuck pointing	„			8
Weather pointing in cement	„			4
Slate dampcourse	„			10
Vertical dampcourse	„		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	1	0	6
Bath stone and do., all as last	„		14	6
Artificial stone and do.	„		15	3
York stone templates, fixed complete	„		13	6
„ thresholds	„		16	0
„ sills	„	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	„		6	0
„ „ roofs	„		7	3
„ „ trusses	„		8	6
„ „ partitions	„		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" „ „ „ „	„	1	19	6
1¼" „ „ „ „	„	2	5	0
¾" × 2" fir battening for Countess slating	„		10	6
Do. for 4" gauge tiling	„		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
„ „ „ 2 „	„		3	0
„ „ „ 3 „	„		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" „ „ „ „	„		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	„	3	2	0
1½" do.	„	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	„		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" „ „	„	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	4	3
2" „ „ „	„	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" „ „ „	„	3	0
1½" „ but moulded both sides	„	3	0
2" „ „	„	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" „ „	„	2	0
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	3	0
1½" deal moulded wall strings	„	2	6
1½" „ outer strings	„	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" „ „	„	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	„	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to lengths, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	„	1	3	0
Do. stanchions with riveted caps and bases and do.	„	1	2	0
Mild steel bar reinforcement, ⅜" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	„	1	17	0
Do. in covering to turrets, etc.	„	2	4	0
Do. in soakers	„	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	„	7	9	1 0	1 3	2 0	—
Boiler screws and unions	„	3 6	4 0	5 6	8 0	—	—
Lead traps	„	—	—	—	7 6	10 0	—
Screw down bib valves	„	7 6	10 6	12 6	—	—	—
Do. stop cocks	„	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	„		4	6
Lathing with sawn laths to ceilings	„		1	6
⅝" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		2	6
Do. vertical	„		2	3
Rough render on walls	„		1	9
Render, float and set in lime and hair	„		2	6
Render and set in Sirapite	„		2	9
Render, backing in cement and sand, and set in Keene's cement	„		4	0
Extra, only if on lathing	„			9
Keene's cement, angle and arris	F.R.			8
Arris	„			3
Rounded angle, small				3
Plain cornices in plaster, including dubbing out, per 1" girth	„			2
1" granolithic pavings	Y.S.		4	6
1½" „	„		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	„		18	0
9" × 3" „ „ „ „	„	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

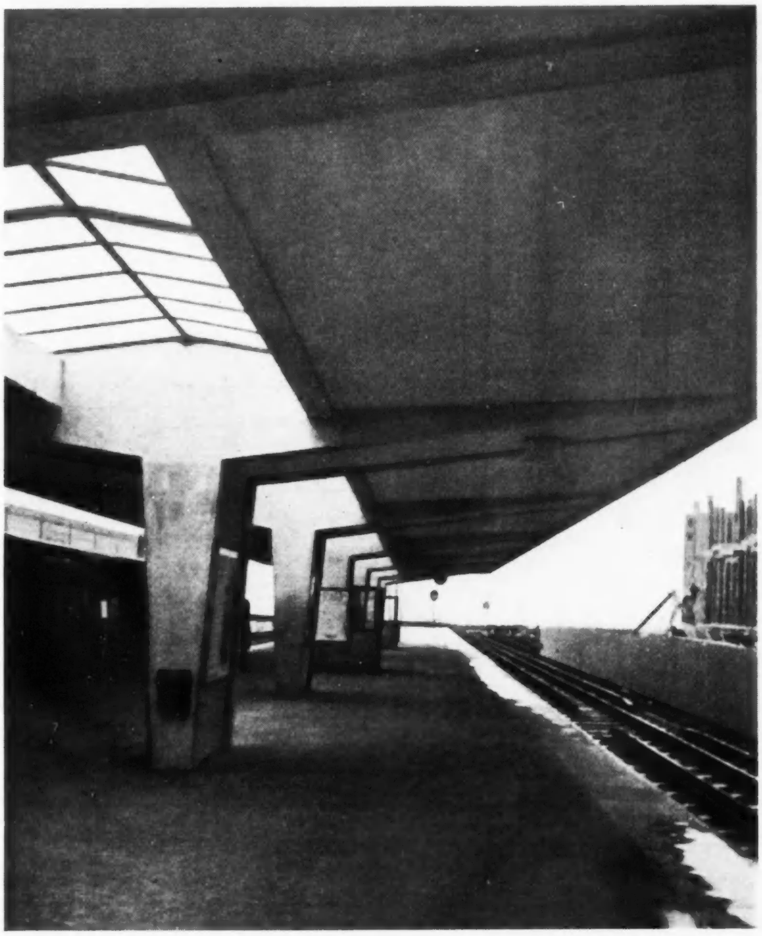
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	„	2	9

ENFIELD WEST UNDERGROUND STATION

PLATFORM CANOPY: S. A. HEAPS, Architect, UNDERGROUND RAILWAYS

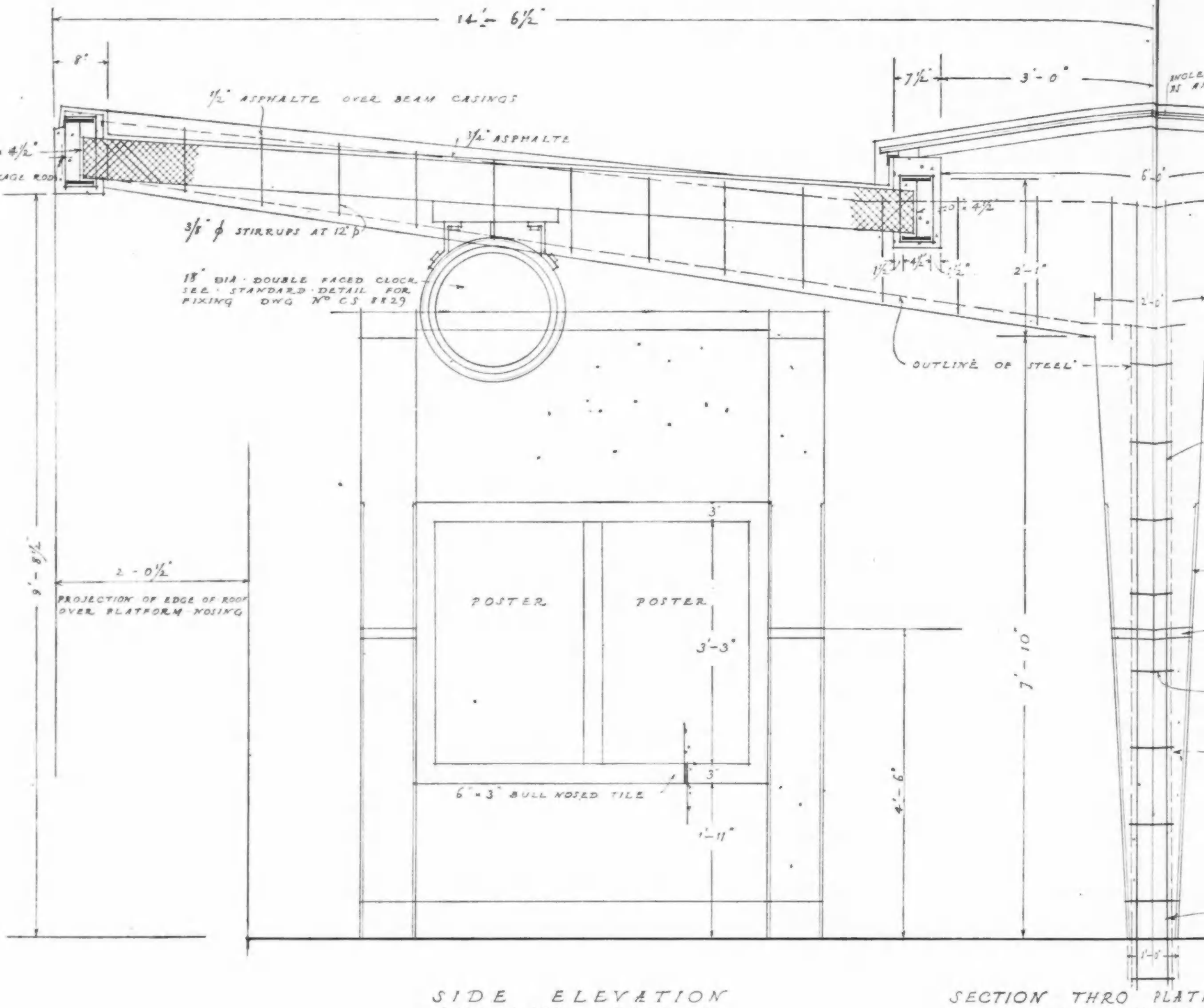


LOOKING ALONG THE STATION PLATFORM

IN this issue some illustrations and drawings are given of Enfield West Station, recently opened on the New Southgate tube, which has been designed by C. H. James (Adams, Holden and Pearson, consulting architects.)

This supplement is confined to large-scale detail drawings of the platform canopy, constructed in reinforced concrete to the design of S. A. Heaps, architect to the Underground group, that has been standardized for open stations. Drawings of the staircases leading down to the platform, also to his designs, are reproduced on pages 438-9.

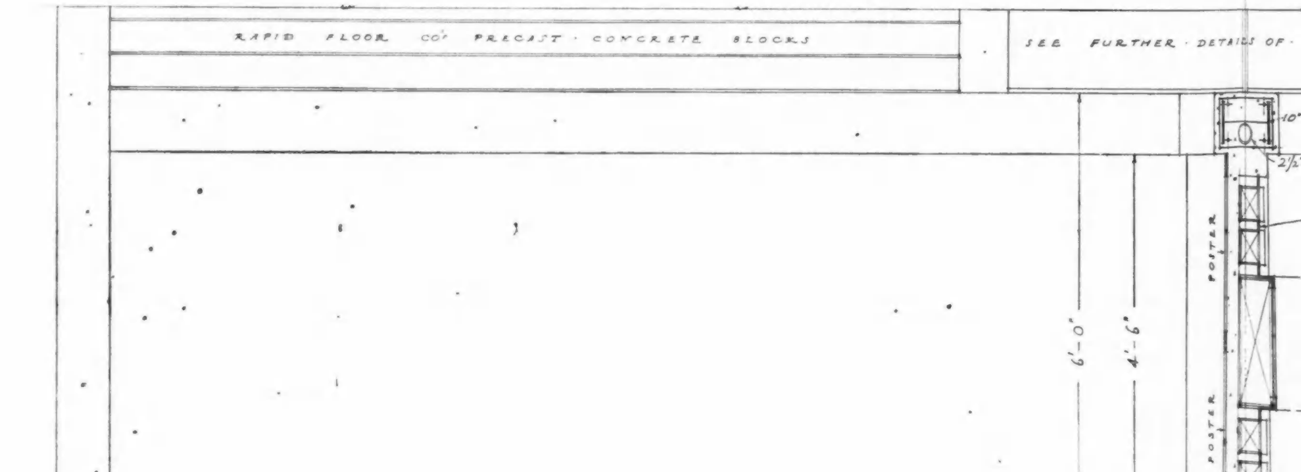
The drawings of the canopy are fully explanatory, and show how provision is made for automatic machines, nameplate, seats, weather-shelters, etc. The general paintwork in the lower part of the station is green, pale primrose, yellow and elephant grey.


14'- 6½"
8"
½" ASPHALTE OVER BEAM CASINGS
¾" ASPHALTE
10" × 4½"
1 5/16" ϕ SHRINKAGE ROD
3/8" ϕ STIRRUPS AT 12" p
18" DIA · DOUBLE FACED CLOCK SEE · STANDARD · DETAIL FOR FIXING DWG Nº CS 8829
9'- 8½"
2 - 0½"
PROJECTION OF EDGE OF ROOF OVER PLATFORM NOSING
POSTER
POSTER
3"
3'-3"
3"
6" × 3" BULL NOSED TILE
1'-11"
4'-6"
7'-10"
7½"
3'-0"
6'-0"
10" × 4½"
2'-1"
2'-0"
OUTLINE OF STEEL
1'-5"

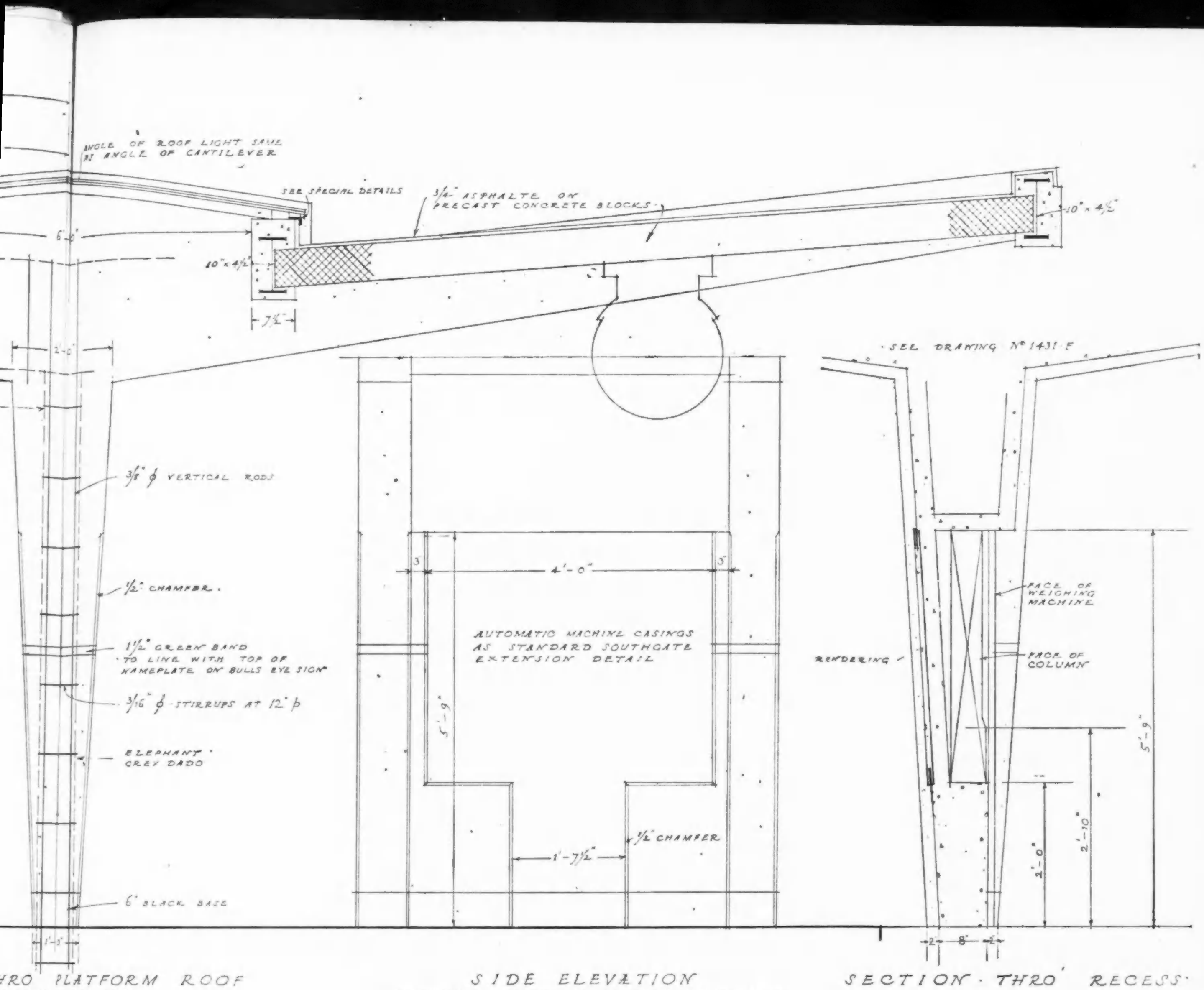
SIDE ELEVATION
SHEWING POSTER

SECTION THRO PLAT
SHEWING TR

PORTLAND STONE CO


RAPID FLOOR COS PRECAST · CONCRETE BLOCKS
SEE FURTHER · DETAILS OF ·
6'-0"
4'-6"
POSTER
POSTER
10"
2½"
2½" DIA R.W.P.

PLAN THRO' UNIT SHEWING AUTO RECE

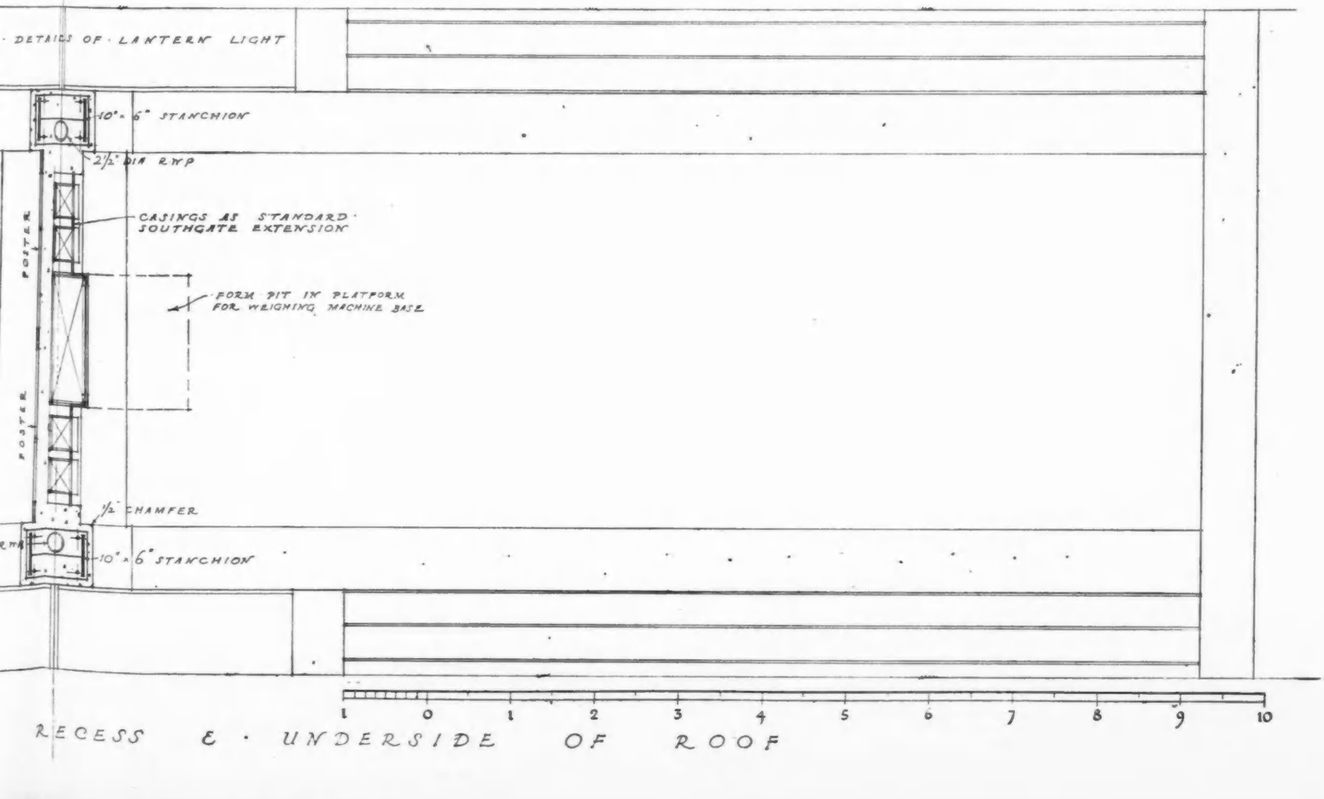

ANGLE OF ROOF LIGHT SAME AS ANGLE OF CANTILEVER
SEE SPECIAL DETAILS
3/4" ASPHALTE ON PRECAST CONCRETE BLOCKS
10" × 4½"
10" × 4½"
6'-0"
7½"
2'-0"
3/8" ϕ VERTICAL RODS
½" CHAMFER.
1½" GREEN BAND TO LINE WITH TOP OF NAMEPLATE ON BULLS EYE SIGN
3/16" ϕ STIRRUPS AT 12" p
ELEPHANT GREY DADO
6" BLACK BASE
1'-5"
SEE DRAWING Nº 1431 F
3"
4'-0"
3"
5'-9"
AUTOMATIC MACHINE CASINGS AS STANDARD SOUTHGATE EXTENSION DETAIL
½" CHAMFER
1'-7½"
FACE OF WEIGHING MACHINE
FACE OF COLUMN
RENDERING
5'-9"
2'-10"
2'-0"
2"
8"
2"

HRO PLATFORM ROOF
WING TRUSS

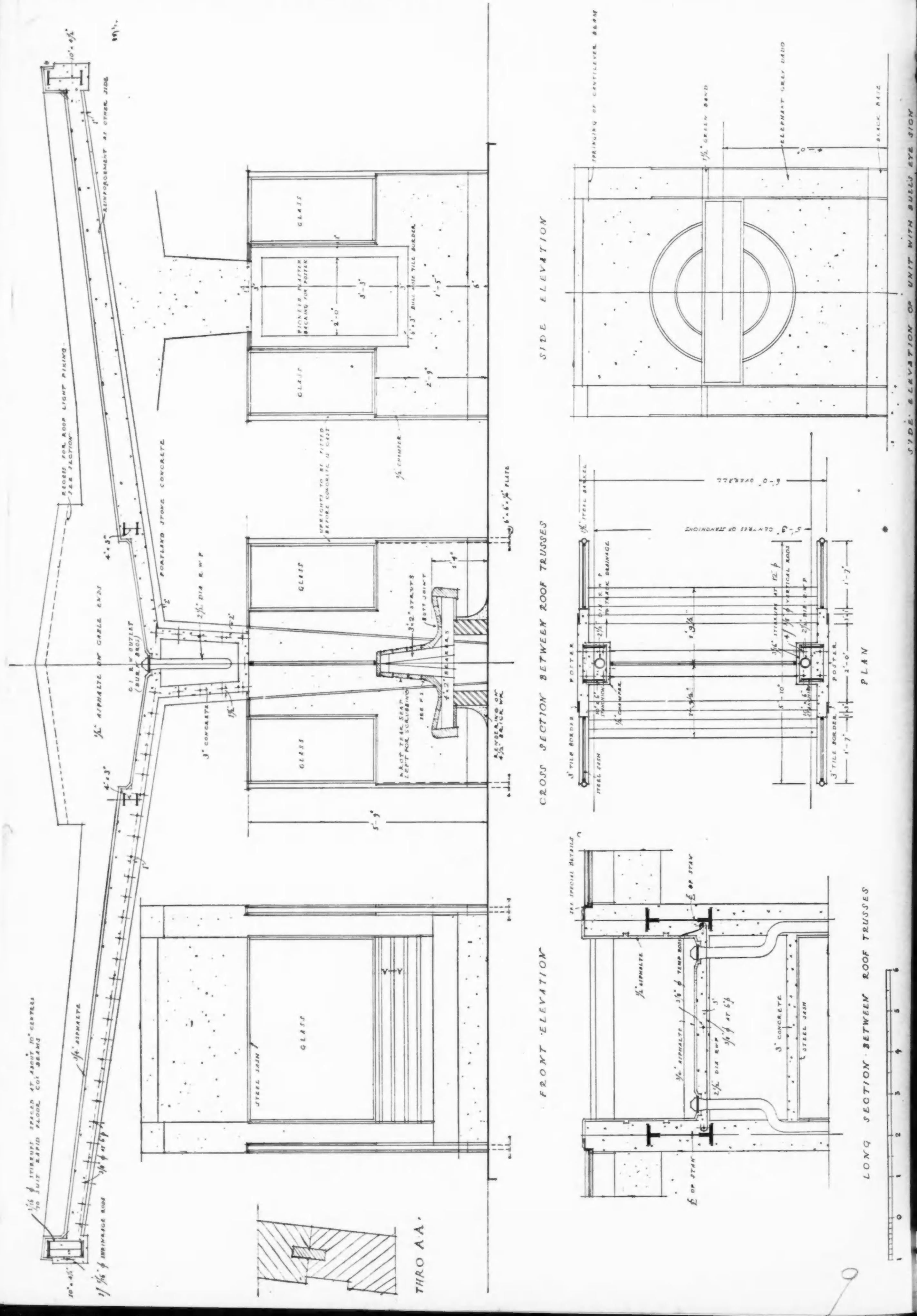
L AND STONE CONCRETE

SIDE ELEVATION
SHEWING AUTO MACHINES IN RECESS

SECTION · THRO' RECESS


DETAILS OF LANTERN LIGHT
10" × 6" STANCHION
2½" DIA RWP
CASINGS AS STANDARD SOUTHGATE EXTENSION
POSTER
FORM PIT IN PLATFORM FOR WEIGHING MACHINE BASE
POSTER
½" CHAMFER
10" × 6" STANCHION
1
0
1
2
3
4
5
6
7
8
9
10

RECESS & · UNDERSIDE OF ROOF


THRO A A.
FRONT ELEVATION
CROSS SECTION BETWEEN ROOF TRUSSES
SIDE ELEVATION
LONG SECTION BETWEEN ROOF TRUSSES
PLAN
SIDE ELEVATION OF UNIT WITH BULL'S EYE SION
GLASS
STEEL SASH
PORTLAND STONE CONCRETE
3" CONCRETE
½" ASPHALTE ON GABLE ENDS
½" ASPHALTE
5'-9"
6'-0" OVERALL
5'-9" CENTRES OF STANCHIONS
POSTER
3" TILE BORDER
1'-7"
2'-0"
1½" GREEN BAND
ELEPHANT GREY DADO
BLACK BASE
SPRINGING OF CANTILEVER BEAM
RECESS FOR ROOF LIGHT FIXING SEE SECTION
REINFORCEMENT AS OTHER SIDE
PIONEER PLASTER BACKING FOR POSTER
3'-3"
2'-9"
1'-5"
½" CHAMFER
UPRIGHTS TO BE FITTED BEFORE CONCRETE IS CAST
6" x 6" x ½" PLATE
2½" DIA R W P
G I R W OUTLET (BUR BROS)
BUTT JOINT
3" x 2" STRUTS
4" x 2" BEARERS
4½" BRICK WK.
SEE SPECIAL DETAILS
℄ OF STAN

SIDE ELEVATION OF UNIT WITH BULLS EYE SION

① PLACES OF PUBLIC ENTERTAINMENT. (as required by L.C.C.)

W.C.'s. – MALES.

Nº of persons	No of W.C.'s.
0. – to 200	1.
200. to 500	2.
500 to 1000	3.

for more than 1000 allow 1 w.c. for every 500. persons above 1000.

W.C.s.. FEMALES.

Nº of persons	Nº of W.C.'s.
0. to 100	1.
100. to 250	2.
250. to 500	3.

for more than 500 allow 1 w.c. for every 400 persons above 500.

URINALS. :

for theatres and music halls — for every 50 persons provide 1 stall
for dance halls and concert halls and cinemas & public boxing for every 100 persons provide 1 stall.

generally .. allow for 50% being males & 50% females
.. for public boxing allow for 90% being males.

Separate accomodation to be provided for staff.

---

② FACTORIES. (as required by Home Office order 1902).

W.C's MALES.

Nº of persons	Nº of W.C.'s.
1. to 25	1.
for every 25 persons up to 100..	1.
for every 40 persons over 100..	1. (plus urinals.)

for over 500 persons – 1 W.C. for every 60 persons on the total (plus urinals)

Conveniences must be under proper supervision and check control.

W.C's. FEMALES

1. w.c. for every 25 persons.

---

③ SCHOOLS.. ELEMENTARY AND SECONDARY. (Board of Education 1931.).

W.C's MALES.

Nº of boys	Nº of w.c.'s.
1. to 100.	4.
for every 100 boys over 100.	3.

W.C's FEMALES.

Nº of girls	Nº of W.C's
1. to 100	6.
for every hundred girls over 100..	4.

width of W.C. minimum 2'3". maximum 3'0".

URINALS.

Nº of boys	Nº of stalls
1. to 100	6.
for every 100 boys over 100	5.

LAVATORY BASINS :

from 1 to 100 persons allow 6 basins. for every 100 persons over 100 allow 4 basins
minimum width of basins. 18".

STAFF ACCOMODATION.

Nº of persons	Nº of basins	Nº of W.C's.
6. to 9	2.	2
10. to 15.	3.	3-4.
16. to 25.	5.	5.-6.

---

④ OFFICE BUILDINGS

W.C's. MALES.

Nº of persons	Nº of W.C's	Nº of lav. basins
1. to 15.	1.	1.
16. to 30.	2.	2.
31. to 65.	3.	3.
66. to 100.	4.	4.

W.C's FEMALES.

Nº of persons	Nº of W.C's	Nº of lav. basins
1. to 12.	1.	1.
13. to 20.	2.	2.
21. to 40	3.	3.
41. to 60	4.	4.
61. to 80	5.	5.
81. to 100	6.	6.

URINALS

Nº of persons	Nº of stalls
7. to 20.	1.
21. to 45.	2.
46. to 70.	3.
71. to 100.	4.

---

⑤ OCCUPIED BUILDING. (as required by L.C.C.)

minimum provision : 1 w.c. for every 12 persons.

definition : "a house or part of a house let to or occupied by members of more than one family but excluding a common lodging house"

---

⑥ SWIMMING BATHS.

Male : 1 W.C. & 1 urinal for every 60 persons, 1 Lavatory basin for every 60 persons.
Female: 1 W.C. for every 40 persons, 1 Lavatory basin for every 60 persons.

INFORMATION SHEET : SANITARY ACCOMODATION FOR DIFFERENT CLASSES OF BUILDINGS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1

Supplement to THE ARCHITECTS' JOURNAL for March 29, 1933

INFORMATION SHEETS

• 11 •

SANITARY ACCOMMODATION

•

CLASSIFIED under six headings, this week's Information Sheet gives, at a glance, the number of sanitary conveniences that have been found necessary, or are definitely required by the authorities, per head of the occupants of the buildings enumerated.

Two of the Sheets previously published have dealt with the subject of plumbing, and the present one will be immediately followed by others covering this field.

This is not the only Information Sheet in this issue. On page 433, an architect-reader, Mr. William C. B. Smith, has provided in support of No. 3 in this series a sheet dealing with seating data for elementary schools, which were not covered in Sir John Burnet, Tait & Lorne's plate. Yet a third information Sheet (produced by Messrs. J. H. Sankey & Sons) will be found on page xxiii. We make no apology for drawing attention to this particular advertisement which marks a development in advertising which will be universally approved. This page cannot be printed loose, but it can be easily cut out—its authors have taken the trouble to make the plate similar in size and character to the other plates in the Sir John Burnet, Tait & Lorne series, so that, if required, it can be filed away with the others.

The following is a complete list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.

OTHER INFORMATION SHEETS IN THIS ISSUE

Page 433—Elementary School Seating.
„ xxiii—Hollow Wall Construction.

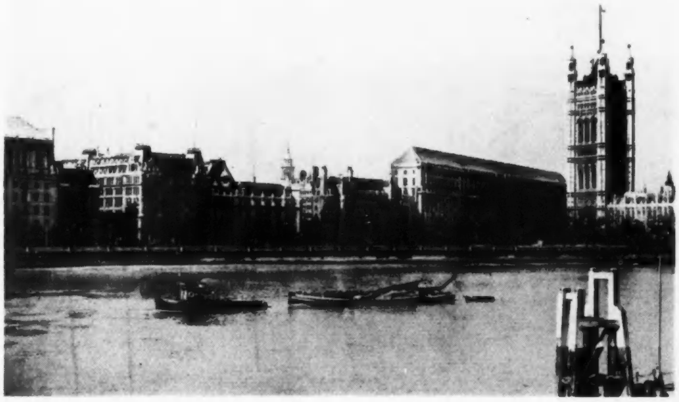
720.5 v.77 pt 2

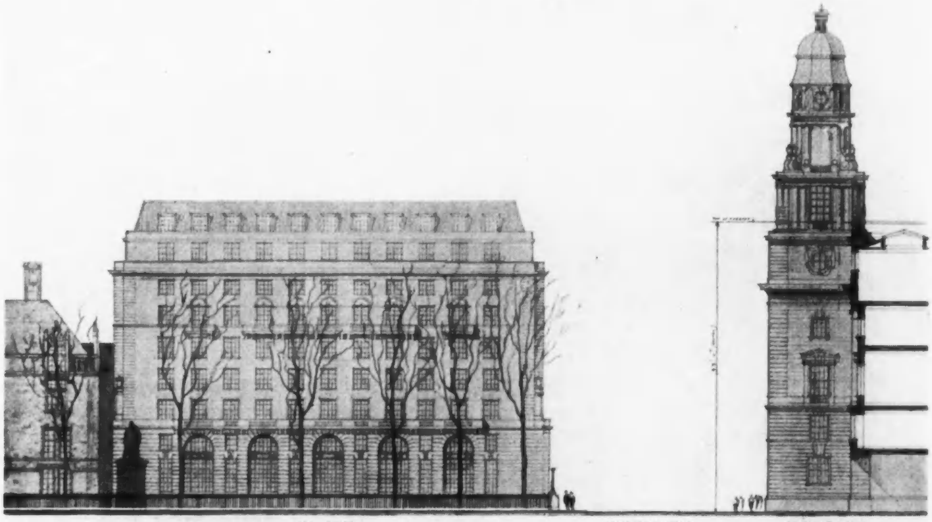
REBUILDING IN WESTMINSTER

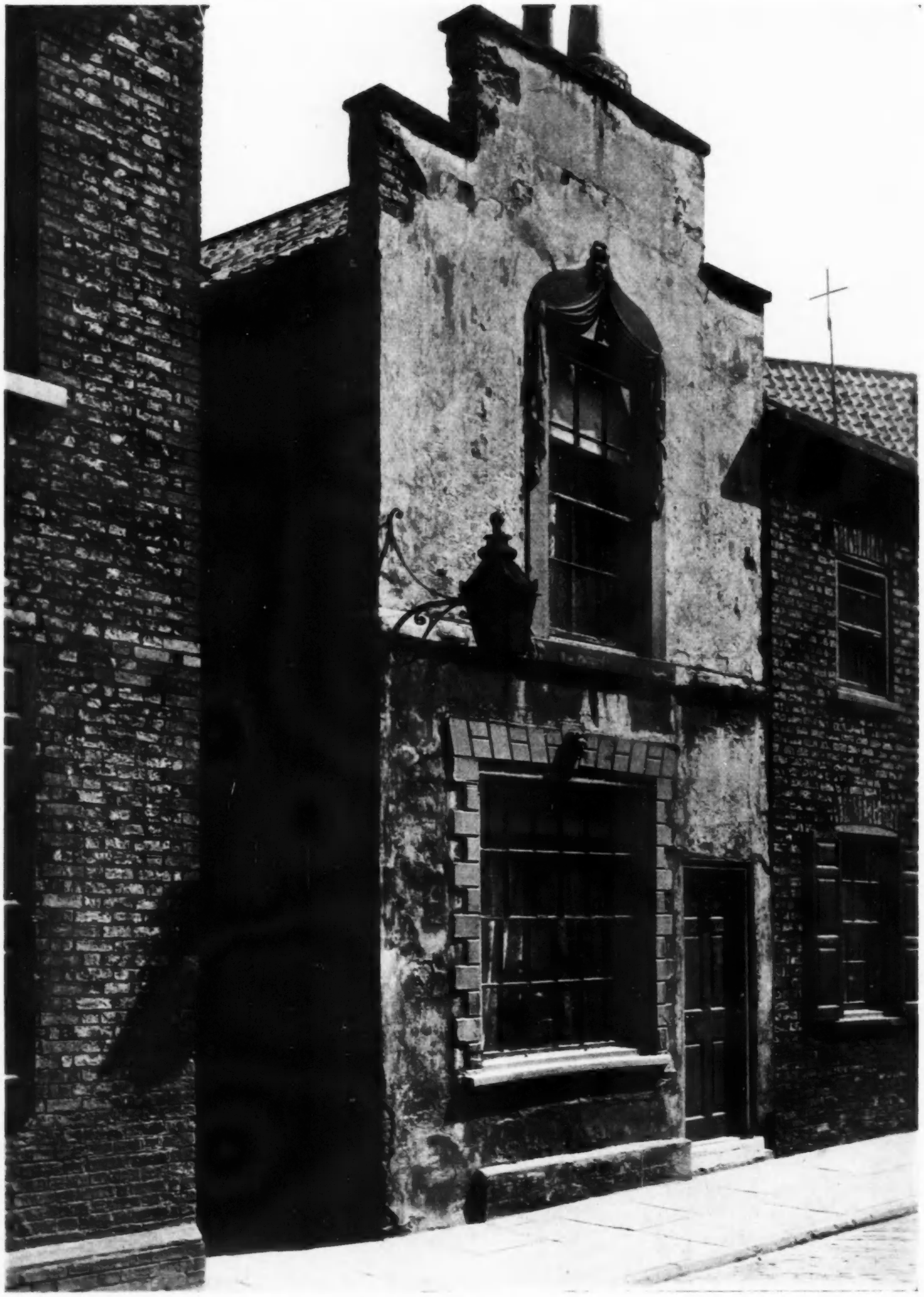
THE PROBLEM IN TOWN PLANNING

THE two rebuilding proposals for the vicinity of Parliament Square that have received prominence are here illustrated. The top view shows the Abingdon Street site, with an approximation (superimposed by "The Times") of the block it would carry. The other pictures are a photograph of Gt. George Street, facing the Square itself, and an elevational drawing, to scale, of the new building, designed by Montagu and Tomlins to supersede that at present standing on this site. This has been specially prepared for us by the courtesy of Dr. Crowley, the promoter of the scheme, to show it in its true relations to its surroundings.

Architects have not only no objection to seeing new buildings going up, but ardently desire it. Nevertheless it is being brought home more and more to them that London must have a comprehensive plan, to determine how high new buildings should be, what form they should take, and where they should go. In the meantime the L.C.C. have taken the decision to town-plan an area of 21 acres round Parliament Square.



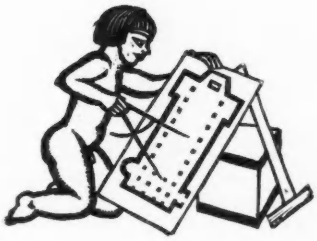




AN EARLY CLOUGH WILLIAMS-ELLIS ?

Hardly. But the sensitive observer will appreciate the temperamental likeness between the modern master and his early nineteenth-century predecessors, whose charming fancy plays about these windows in St. Andrew's Gate, York. York is still full of splendid eighteenth-century architecture, though this is due to no "æsthetic sense" on the part of its inhabitants, most of whom have shown a commendable desire to turn what once shared, with Bath, unique distinction among the cities of England into a really up-to-date industrial slum, indistinguishable from Hull or Huddersfield. This particular house, as its sign shows, is inhabited by a chimney sweep—let us hope that he appreciates his luck in having such a charming home.

PUBLIC LIBRARY
DETROIT MICH.



LAST WORDS ON PUBLIC WORKS

MORE than a month has elapsed since the publication of our first leading article dealing with public works,[1] and three weeks since Mr. Keynes's article appeared, and no major criticism has yet been offered of the calculations which formed the basis of the arguments set forth therein. The inference is obvious. The case put forward is unanswerable.

Those who have argued that public works to aid employment have been tried and found wanting, those who have argued that a policy of public works imposes burdens which outweigh its advantages ; all who have opposed public works are silent, or, indeed, converted, when it is shown for the first time, in a clear and definite way, that such a policy is essentially an economic proposition. The change of opinion since the publication of our first leading article on the subject is indeed truly remarkable.

It may be taken that, for a given expenditure on public works, every £133 employs a man for a year, and that two-thirds of the original expenditure represents a saving to the Exchequer—four-ninths by way of the saving to the unemployment fund and two-ninths by way of increased yield of taxation.

In addition to its advantages from the national point of view, a policy of public works has considerable advantages from the local point of view.

Public works tend to increase the rateable value of the area concerned. Practically all public works serve property, and thereby tend to increase the value of the property served.

If a new road is built, at once there is an increase in the available number of sites for buildings—an increase in the potential rateable value of the district.

When buildings begin to appear, the value of the site is enhanced by the provision of water, lighting and sewage facilities : or, of course, these services may be provided when the road is built.

Similarly, other public works such as land drainage and reclamation increase the value of the area concerned and tend to increase rateable values. In addition, the development of an area by a policy of public works tends to attract new industries and new population.

By such development the foundations of the future prosperity of the area are established.

In other words, this policy is one of capital development—of investment of a kind which adds to our national wealth. And this is precisely the policy which is appropriate today.

Far from adding to our capital, for the last eighteen months or more we have been living on our capital. *As long as we continue to pay out money to keep men idle, with nothing to show for it, we are living on our capital.*

Far from not being able to afford to undertake public works, we cannot afford *not* to do so. *We cannot afford, as a nation, to live on our capital.*

During the last two years or so, some £30,000,000 has been spent in keeping operatives of the building and public works industries idle. For this expenditure the country has nothing to show except queues at the offices where unemployment benefit and poor law relief is paid out.

Yet under the present system of grants to local authorities[2] the Government—without adding a farthing to the burden of the Budget or making a single extra demand on the Exchequer—could use the same expenditure to promote £45 millions of roads, town halls, public baths and bridges, thereby employing precisely that number of men which it would cost £13 million to keep idle.

---

[1] Four leading articles dealing with public works from the economic point of view have appeared in the JOURNAL for March 1, 8, 15 and 22.

[2] Grants normally made to local authorities range from 25 per cent. to 75 per cent. of the value of schemes. The argument above assumes that the Government would make grants to the average value of 66 per cent. This would leave only one-third of the cost to be met by loans by the local authorities. If the total expenditure on capital works were £45 millions, the amount to be raised by loan would be £15 millions, and the loan charge would represent about a penny rate.

The better method, however, would be not to leave the burden on the local authorities, but to raise a national loan for reconstruction, as Mr. Keynes apparently proposes.

C. G. Holme, Editor of "The Studio," of which the fortieth birthday is celebrated in a special number, referred to on this page.

NOTES & TOPICS

THE WESTMINSTER PLAN

THE decision of the London County Council to town-plan an area of 21 acres around Westminster Abbey is a direct result of the Carlton House Terrace Campaign. It is a small but an immensely encouraging start though it by no means settles the fate of the proposed new buildings in Abingdon Street and Parliament Square.

*

An essential question now is the length of time during which the officials of the L.C.C. have been aware of this project without warning those responsible of the risk of entering into a building contract.

*

RESPONSIBILITY FOR DESIGN IN INDUSTRY

Speaking last Thursday at an evening meeting of the Design and Industries Association on "The Artist and Industrialism," Mr. Eric Gill withheld his usual mediæval thunderbolts of denunciation, and adopted for his examination of this prickly subject a socratic technique. His seemingly artless questions made this uncertain machine age appear very shiftless and shoddy.

*

He held that we never approach any work of art or industry with a genuine desire to know what the thing is. (For example, on the subject of the Martyr's Memorial at Oxford, he asked "What are Martyrs?" and "Is imitation Gothic their proper memorial?")

*

He reminded us that we were breeding, had indeed already bred, a puppet population, intellectually at a low level, never under the necessity of being critical, save in the matter of physical convenience—an irresponsible herd—while the individual artist was beoming more and more a hot-house plant.

*

Eating, dressing-up and building were the three things that had hitherto given men delight. Standardized food, factory-made clothes, machine-made buildings were changing the nature of men's pleasure. Consequently the artist was almost completely divorced from the production of the things that gave pleasure or were useful.

*

Mr. Gill has a way of provoking all kinds of normally retiring people to unsheathe their prejudices in public, and in the discussion that followed various speakers pursued the point, but never really overtook it.

*

The importation of a few real workmen into these discussions would, as Mr. Carrington aptly suggested, restore the balance of reality. The comments of a bricklayer or two might help many people to understand the comparative indifference of the workman to matters that seem so dear and urgent to Hampstead and Bloomsbury.

*

THE HERD AND THE HOME

But Mr. Gill's strictures on the dying critical powers of the public are supported by many of the things shown at the Ideal Homes Exhibition at Olympia. The architectural quality of the Exhibition lay-out is far ahead of the individual exhibits, and with few exceptions the Village of Ideal Homes represents several headfuls of ideas and a complete inability to understand any of them.

*

Mr. Facing-both-Ways is the presiding genius of the Exhibition, which is an uneasy compromise between moderne (very final "e") and ye olde.

*

"THE STUDIO'S" FORTIETH BIRTHDAY

I have received from Mr. C. G. Holme, editor of *The Studio*, a copy of his magazine's fortieth birthday number. In his covering letter Mr. Holme writes:

> I feel sure you will be interested in the effort it makes, however incompletely, to give a bird's-eye view of the change in progress in art during the period in which our magazine has been in existence.

*

Mr. Holme is very modest in using the words "however incompletely." In the seventy-six pages that comprise the editorial section of *The Studio* he has given us a brilliant review—by means of numerous articles and photographs—showing the progress in the arts in this country and abroad since 1893. Contributors include Sir William Rothenstein, Josef Hoffmann, Philip de Laszlo and Frank Brangwyn.

*

Mr. Holme, it will be recalled, succeeded his father in the active editorship of *The Studio* in 1921-22; and is also the general editor of The Studio Publications. He was awarded the M.B.E. for his services during the war, and was also made a Cavaliere by H.E. Signor Mussolini for organizing the British Section of the Exhibition of Decorative Art at Monza in 1930. This year he was elected a Fellow of the British Institute of Industrial Art.

*

THE HOUSING BILL

In the course of the next few days the Government's Housing Bill will pass into law. Although it terminates subsidies offered to local authorities under the Wheatley Act of 1924, its passing does not mean that there will be any reduction in next year's housing grants.

*

According to the official figures of the Ministry of Health, the grants during the year 1933-34 towards housing expenses will be £13,645,000, an increase of a quarter of a million on the present year. The greater part of this vast sum is, of course, to pay for houses already built. The total cost of the technical staff at the Ministry engaged on housing and town-planning is only £13,912.

I hear that the position at the Ministry formerly occupied by Mr. Montagu Harris, a former President of the Town-Planning Institute, is not to be filled.

*

THE ARCHITECT—THE SAVIOUR OF CIVILIZATION

I have seldom known Mr. P. Morton Shand so suavely unprovocative as in his lecture on "Where Londoners Play," at the R.I.B.A. last Wednesday. What surprised me most was his warm praise of Victorian and Edwardian theatres, and his firm belief in the architect as the only possible saviour of civilization.

*

THE ARCHITECTURE OF MIXED DRINKS

According to Mr. Shand the layout of the modern theatre bar—"which provides the British substitute for Continental foyer life"—has considerable affinity with that of the nursery: the high, uncomfortable stools; the solemn discipline of "sitting up" to the counter; the rows of bottles with their reminiscences of the family medicine-chest. How was it, he asked, that some daring young architect had not gone a step further and designed these perches frankly as plattered baby-chairs, in which you could be shut in, and given a "go-cart" cocktail, with a warning spank not to spill it, by a white-aproned barmaid?

*

ADVERTISING ARCHITECTURE

One of Mr. Shand's constructive suggestions was that "a walk-on" by the architect might be billed among a new cinema's "stupendous opening attractions." He insisted that most people had never seen an architect. Never having to consult one, they hardly knew that flesh and blood embodiments of this vague, exalted name existed.

*

It was encouraging to see a lay audience applaud his demand that the instigators of the crudely-daubed Wild-West hoardings that sprawl across West-End cinema façades, and the impresarios whose "amusement parks" have made "the Haymarket spiritually one with Tottenham Court Road," should be imprisoned without the option of a fine. Nor did it demur when threatened with the "mixed blessings of an architectural and a political dictator combined in one," before very long, unless we cultivate purposeful anger instead of indulging in cynical chuckles, in surveying these glaring abuses of individual liberty.

*

PRE-PLANNING

I take the following from Sir Sydney Skinner's speech at the opening of Derry and Toms's New Store Building on 30 March:—

> Sir Sydney Skinner said that they saw today the result of a task whose inception dated back 3½ years, when in a room 16 ft. square the vice-chairman and himself drafted the idea of the new store between midnight and 4 a.m. It was planned inch by inch, through a period of fifteen months, and *when the whole scheme was ready, they called into service their own architect, Mr. George. The success of the result was largely due to the skill and intelligence displayed by the firm's employees* . . . The store was laid out to appeal to the younger generation who had thirty or forty years of trading in front of them.

*

Sir William Davidson, M.P., said:

> "The new building had been erected by Barker's own building departments and *designed by an architect trained by the firm, and there could be no greater test of the enterprise of this great company.*"

*

THE NEGLECT OF SOANE

Why is Sir John Soane neglected? His practice was limited; he was not easy to understand in his day; he was overshadowed by Nash; but, dash it all, he was a modernist, a hundred years before his time, a constructor if there ever was one, with a sense for and knowledge of materials that has never been equalled. Forget about his classic exuberances and concentrate upon his dome work and you will profit by the experience.

*

One hundred years ago exactly he put £30,000 in 3 per cent. consols as a fund for a museum he wished to found in order to bequeath to posterity his collection of antiquities and drawings. The museum is still there, and Soane is still the most interesting thing in it.

*

THE C. R. MACKINTOSH EXHIBITION

I have just heard that this exhibition will be held in the McLellan Galleries, Glasgow, from May 1-27 inclusive. The organizer is Mr. William Davidson, of Virginia Street, Glasgow, and Tooley Street, London.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, April 5

R.I.B.A., 9 Conduit Street, W.1. "Where Londoners Shop." By F. S. Towndrow, A.R.I.B.A. 6 p.m. Also, exhibition of photographs, etc., of work carried out by the Department of Ancient Monuments and Historic Buildings. 10 a.m. to 8 p.m. (Saturday, 10 a.m. to 5 p.m.) Until April 12 inclusive. 6 *p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At the Home Office Industrial Museum, Horseferry Road, S.W.1. "The Application of Refrigeration to Air Conditioning." By B. C. Oldham. 7 *p.m.*

ROYAL SOCIETY OF ARTS, John Street, Adelphi, W.C.2. "Dublin, Its Arts, Trade and Commerce." By Professor Rudolph M. Butler, F.R.I.B.A. 8 *p.m.*

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. At the R.I.B.A., 9 Conduit Street, W.1. "The English Parish Church before the Reformation. Part III. After the Black Death." By F. Herbert Mansford, F.R.I.B.A. 8 *p.m.*

ARCHITECTURE CLUB. At 34 Bedford Square, W.C. Supper-Discussion: Should Architecture be National or International. 7.30 *p.m.*

IDEAL HOMES EXHIBITION. At Olympia, West Kensington, W. Until April 29. 10 a.m. to 10 p.m.

Thursday, April 6

INSTITUTION OF STRUCTURAL ENGINEERS, 10 Upper Belgrave Street, S.W.1. "A Structural Steel Review." By H. V. Crabtree. 6.30 *p.m.*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 Lincoln's Inn Fields, W.C. "The Making of a Connoisseur." Part 12: The Romance of Old English and Irish Glass." By H. Mordaunt. 7 *p.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C. "Lead and Its Alloys: Their use in Building." By F. L. Brady. 7.30 *p.m*

Friday, April 7

HANTS. AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION. At Portsmouth. Council Meeting. 3.30 p.m. General Meeting. 6.15 p.m. Technical lecture. 6.30 p.m.

Saturday, April 8

Sunrise 5.27 a.m. Sunset 6.39 p.m.

INSTITUTION OF CIVIL ENGINEERS. Students' (afternoon) visit to Harmondsworth (Middlesex) Experimental Station.

Monday, April 10

CHARTERED SURVEYORS' INSTITUTION, 12 Gt. George Street, S.W.1. "The Insurance of Buildings and Assessment of Fire Losses." By J. McMullen Brooks. 8 *p.m.*

Tuesday, April 11

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS, 1 Wilbraham Place, S.W.1. "Revaluations for Rating." By Witton Booth, M.B.E. 7 *p.m.*

ILLUMINATING ENGINEERING SOCIETY. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1 "Hospital Lighting." By F. Charles Raphael. 7 *p.m.*

The Architectural Press announce the issue of a revised Catalogue of Books on Architecture, Fine Art, Decoration, Furniture, Building Science and Architectural Practice. A copy will be sent post free on application to: The Architectural Press, 9, Queen Anne's Gate, London, S.W.1.

NEWS

●

POINTS FROM THIS ISSUE

We cannot afford, as a nation, to live on our capital 451

Henry VIII in the nude, smoking a cigar in a stainless steel holder 461

" Our industrial towns are in the rottenest state " 464

Experiences of a firm which has just completed a new factory 465

The difficulties of making a roof garden would be diminished if its construction were an integral part of the building 469

" There was a young man of Peru . . . " 471

" Urban influences neutralize the country. Rural influences neutralize the town " 471

Insurance Companies give rebates of 50–60 per cent. on sprinklered buildings 475

●

Evidence of the successful efforts that are being made by the Public Relations Committee of the Building Industries National Council in its " Build Now " campaign is provided by the fact that during the month of March Messrs. London Brick Co. and Forders Ltd. reached the highest output figure in the whole of their history. The total sale of bricks for that month is well over 111 millions. On Tuesday of last week, March 28, they reached a high water mark for any single day in the whole of their career, the output for that day being 5,300,100. The following day, (Wednesday, March 29), they received orders to the total of 11 millions, which is the highest number of orders received for one day since the year 1902, when a single freight order received caused the total for one day to exceed this figure.

The list of subscriptions received by the Public Relations Committee of the B.I.N.C. up to Monday last amounted to £2,406/0/10. Subscriptions should be addressed to Mr. Oswald Healing, at Duke Street, Adelphi, W.C.2.

CARLTON HOUSE TERRACE

Sir Arthur Steel-Maitland, Chairman of the Carlton House Terrace Defence Committee, issued last week his first report to the 400 members of the Committee.

Sir Arthur begins by admitting that the immediate object has not been attained. In spite of strong representations to the Minister of Agriculture and Fisheries, and a debate in the House of Commons, the Minister has definitely refused to intervene and the new building in Carlton Gardens is to be pushed ahead to its full height. The Government has, however, admitted that the pulling down of No. 4 Carlton Gardens was a mistake, and has given an assurance that no further rebuilding project in Carlton House Terrace will be undertaken without the fullest consideration and the most open discussion with representatives of the public and Members of Parliament. The report continues :

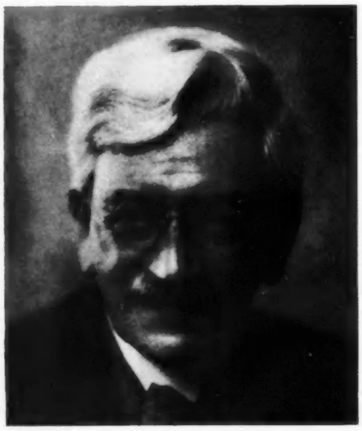
The Government has proposed to take two administrative steps, which, it is suggested, will minimize the likelihood of other mistakes of a similar character. These steps are the appointment of an Advisory Committee to the Commissioners of Crown Lands, and the subordination of the Permanent Commissioner to the Parliamentary Commissioner, who will still be the Minister of Agriculture.

The appointment of an Advisory Committee is to be welcomed, provided that its personnel is suitable, and that its constitution and powers are such that it can exercise an effective check. The Defence Committee have therefore submitted definite recommendations as regards both these matters to the Minister at an interview which they have had with him.

As regards the constitution of the Crown Lands Commission, the Committee pressed on the Government the view that no change in the administration can be adequate or satisfactory which does not include the transference of the control of the urban Crown Lands from the Minister of Agriculture and Fisheries to the First Commissioner of Works. If the objection is taken that the administration of the Crown Lands should not be divided, the solution is simple. The whole administration should be transferred. The value of the urban lands involved is many times that of the rural, and the disproportion is steadily increasing. Moreover, any mistake made in connection with the rural lands cannot be so permanently disastrous as those affecting urban sites.

Two other matters have also engaged the attention of the Defence Committee. The first is the Adelphi Estate Bill ; the second is a proposal to pull down the houses in Abingdon Street adjoining Westminster Abbey and opposite the Houses of Parliament.

The question arises whether the members of the General Committee wish it to remain in being and the Executive Committee to continue to be active on its behalf. We imagine that this will be their wish, at least for a trial period until the next annual meeting of the General Committee. At the same time, we would be glad to receive any expressions of opinion from members on the subject. The reasons for continuing it, at any rate for the present, appear very strong. The changes proposed by the Government are not settled, and it is most necessary that they should be of a satisfactory nature.



Thomas H. B. Scott, F.R.I.B.A., to whom His Excellency Baron de Cartier de Marchienne, Belgian Ambassador, on behalf of His Majesty the King of the Belgians, recently presented the Knighthood of the Order of Leopold II for his services in designing the Belgian War Memorial erected to the Belgian soldiers who died of wounds in this country and were interred at Kensal Green Cemetery. Mr. P. Lindsey Clarke, D.S.O., the sculptor, has been awarded the Golden Palms of the Order of the Crown.

THE VATICAN INSURED

The Pope has decided to break with tradition and insure some of the more modern buildings of his State against fire.

A PORTENT OF THE FUTURE

Mr. A. J. Penty, L.R.I.B.A., lecturing to the Liverpool Architectural Society on " Tradition and Modernism in Architecture " on Wednesday last, said he foresaw a day, in the course of a generation, when our towns and countryside would be disfigured by derelict concrete buildings, because it would not be worth while to face the difficulties of demolishing them. He urged that tradition did not hamper, but liberated expression, and that architecture depended upon the cross-fertilization of styles, the historical grafting of one upon another from which a new style was born.

A NATIONAL SURVEY

Sir Hilton Young stated on Monday of last week in a broadcast speech that the first step in the coming slum campaign will be a National Survey. It is to be hoped that this will be more effective than the former survey initiated on August 25, 1919. This asked local authorities to send to Whitehall full information about overcrowding, unhealthy areas and insanitary houses. It was said to be a landmark in the history of the country as important as the Doomsday survey. The upshot of the enquiry was to prove that in many districts there was no adequate record kept either of unfit houses or of unhealthy areas. There was also considerable overlapping in the returns. The new survey must be more reliable.

ECCLESIASTICAL ARCHITECTURE

In a lecture last Wednesday to the St. Paul's Ecclesiastical Society, Mr. Cachemaille-Day, A.R.I.B.A., spoke of modern tendencies in ecclesiastical architecture. He said that a surprisingly large number of churches were being built today, chiefly in the vast housing estates which are growing up outside large towns.

In many of these estates, however, the Church is building centres which not only regard the religious life pure and simple but which also recognize other activities required by a fully-developed human being. No longer is the church alone built on an isolated site, while round the corner may be found an obscure and dreary looking parochial hall, but often a complete group of buildings is being planned right from the beginning, comprising church and vestries, hall and numerous smaller rooms for committees and meetings, kitchen, dressing rooms, lavatory accommodation, also vicarage, and in some cases schools.

He pointed out that church architecture fulfils an emotional need which is not altogether satisfied by "the clean and heroic lines" of modern secular buildings. It is likely, therefore, that the Gothic style will continue to exert its influence on ecclesiastical architecture because of its emotional qualities. Economy, however, is a strongly modifying factor in church building nowadays, and it will shape a style to meet its needs in such a way that there will be no room for the mere repetition of archaic forms. Finally, the Church has a remarkable opportunity for encouraging painting, sculpture and the decorative arts.

PLEA FOR WOMEN ARCHITECTS

Lady Ruth Balfour, M.B., in her presidential address to the Edinburgh branch of the National Council of Great Britain last week, said :—

I would like to see in future every local authority having regard to the necessity of having a woman architect employed in connection with the building of Council houses. I have recently seen a number of Council houses in Fife, and have been impressed by the folly of the men who built them.

ANNOUNCEMENTS

Messrs. Empsall, Clarkson and Clarke, F.R.I.B.A., have removed their offices to 18, North Park Road, Manningham, Bradford. Telephone No. : Bradford 1640 (as before).

The address of Mr. G. Grey Wornum, F.R.I.B.A., as from Friday, April 7, will be 39 Devonshire Street, W.1. Telephone No. : Welbeck 5932.

Bekonscot, a model village and railway, now being exhibited to the public in Warwick Road, Beaconsfield. It is the work of the owner (R. R. Callingham) and W. A. Berry. The proceeds of the exhibition, which will be open every Sunday until September, are in aid of the funds of the Railway Benevolent Institution and the Queen's Institute of District Nursing.

Owing to the renaming of Bentinck Terrace the address of Mr. Cyril Farey, A.R.I.B.A., is now 83, Albert Road, Regent's Park, N.W.8. Telephone No. : Primrose 3071.

The architectural practice of Messrs. Percy Tubbs, Son and Duncan will be carried on under the same title by the remaining partners (Messrs. G. B. Tubbs, A.R.I.B.A., and R. A. Duncan, A.R.I.B.A.). Mr. G. N. Hannam, F.S.I., who has been a member of the staff since 1919, will practise independently as a surveyor and assessor at the same address. He will continue to carry out work of this nature for the firm.

The late Sir John Simpson

It is with deep regret we record the death of Sir John William Simpson, K.B.E., F.R.I.B.A., which took place on Thursday last at his home at Highgate in his seventy-fourth year.

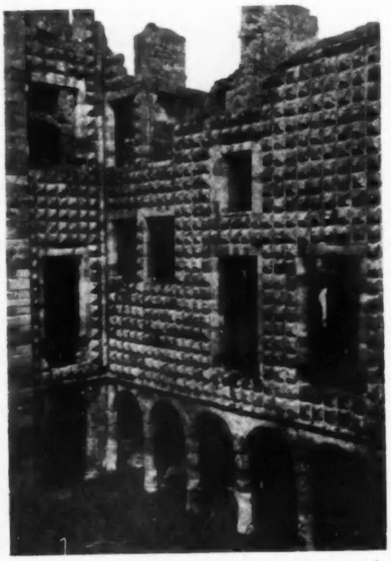
The late Sir John Simpson, K.B.E., whose death took place on Thursday last.

Born in 1858, the son of a Brighton architect (the late Thomas Simpson), Sir John was educated at private schools and received his architectural education at the Royal Academy Schools. He became an Associate of the Institute in 1882, a Fellow eighteen years later, and in 1910 entered into partnership with Mr. Maxwell Ayrton, F.R.I.B.A.

The name of Sir John Simpson will always be associated with the British Empire Exhibition at Wembley, held in 1924. In collaboration with Mr. Ayrton (with Sir Owen Williams as engineer), he was responsible for the general layout, the Stadium, and the Palaces of Industry and Engineering. For this work he was made a K.B.E.

For sixteen years he represented the R.I.B.A., of which he was President from 1919–1921, on the Council of the British School at Rome, being one of its original members under the Royal Charter. He resigned from the Institute in 1927 because of the appointment of a new representative of the Institute on this Council. Correspondence subsequently passed between the R.I.B.A. and Sir John, in which the former explained their action, and he withdrew his resignation. Sir John had held several public appointments. He was Secretary-General of the Town Planning Conference, London, in 1910; a member of the Board of Professional Defence ; a corresponding member of the Institut de France, Officier de l'Institution Publique ; President of the Union Franco-Britannique des Architectes (1922-1923) and architect to the Hon. Society of Lincoln's Inn and to the Royal Society of Painters in Water-colours.

Sir John, who was the author of various papers on the planning of cities and public spaces, etc., was responsible for a number of buildings. These included the following : New buildings at Haileybury College and Lancing College ; Roedean School, Brighton ; Art Galleries for the Corporation of Glasgow ; Cartwright Memorial Hall, Bradford ; National Hospital for Paralysed and Epileptic, Queen Square,



Crichton Castle, Midlothian: the north-west corner of the court. From the exhibition of photographs, etc., of work carried out by the Department of Ancient Monuments and Historic Buildings under the direction of Sir Charles Peers, the Royal Gold Medallist, which was opened at the R.I.B.A. on Monday last.

Bloomsbury; Grafton Street Hospital, Liverpool; monuments to Royal Sussex Regiment and Onslow Ford, R.A.; offices for the Crown Agents for the Colonies, Millbank; Victoria Institute, Worcester; Board Schools at Brighton.

The body was cremated at Golders Green yesterday.

R. I. B. A.

THE ROYAL GOLD MEDAL

On Monday last, April 3, at the R.I.B.A., Sir Charles Reed Peers received from Sir Raymond Unwin, the President, the Royal Gold Medal for Architecture which His Majesty the King presents annually to one who has rendered distinguished service to the Art.

The award was first made by Queen Victoria in 1848 and, with two exceptions, has been awarded every year since.

A collection of photographs illustrating some of the work carried out by the Department of Ancient Monuments and Historic Buildings under the direction of Sir Charles Peers was also opened on the evening of the presentation of the Medal and will remain open daily between the hours of 10 a.m. and 8 p.m. (Saturday 10 a.m. to 5 p.m.) until Wednesday, April 12 inclusive.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute:

International Architectural Competitions: A letter was submitted from the Foreign Office stating that the proposal for the establishment of a Permanent International Commission of Architects had been put forward by the United Kingdom Delegation to the Council of the League of Nations and that it had been referred by the League Council to the International Organization for Intellectual Co-operation.

The Court of Governors of the University of Liverpool: Mr. E. Bertram Kirby, O.B.E. (F.), was appointed to represent the R.I.B.A. on the Court of Governors of the University of Liverpool for the period January 1, 1933, to December 31, 1935.

System of Colours for Conduits in Buildings: Mr. L. W. Thornton White (A.) was appointed to represent the R.I.B.A. on a Technical Committee set up by the British Standards Institution to draw up a Standard System of Colours for Conduits in Buildings.

Constitution of the Architects' Registration Council: The following members were appointed to serve on the Registration Council for the year ending March, 1934:—Messrs. W. H. Ansell (F.), Henry V. Ashley (F.), Major Harry Barnes (F.), Henry M. Fletcher (F.), E. Stanley Hall (F.), Sydney Kitson (F.), A. H. Moberly (F.), L. Sylvester Sullivan (F.), J. Alan Slater (F.), Sydney Tatchell (F.), Percy Thomas (F.), John Watson (F.), and Charles Woodward (A.).

Constitution of the Admission Committee of the Architects' Registration Council: The following members were appointed to serve on the Admission Committee for the year ending March, 1934:—Messrs. Edwin Gunn (A.), A. H. Moberly (F.), Thos. E. Scott (F.), and Charles Woodward (A.).

Reinstatement: The following ex-members were reinstated:—As Associate: Mr. James B. Wride. As Licentiate: Captain Owen K. Beattie.

Resignations: The following resignations were accepted with regret:—Messrs. H. Field (F.), G. E. Jones (F.), G. V. Lidbury (A.), R. P. Morris (A.), A. S. Chadwick (L.), R. C. Henderson (L.), W. J. Joynes (L.), E. Rothwell (L.), and E. R. Walker (L.),

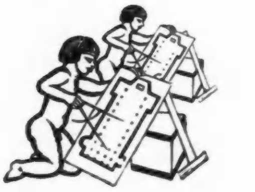
Election of Students: The following Probationers were elected as Students of the R.I.B.A.:—Architectural Association: Messrs. A. F. G. Barnard; R. P. Hamlin, (Miss) W. K. Homan, T. C. Page, M. E. Thornely, and (Miss) E. M. Ward. The Polytechnic, Regent Street, London: J. W. L. Forge, A. E. McKenna, F. M. Rutter, (Miss) C. S. G. Smith and H. F. Wilson. Leeds College of Art: H. C. Castle, R. C. Davis, G. Davy, and R. S. Shapley. Edinburgh College of Art: W. Collyer, J. F. Coull, J. F. Donaldson, (Miss) R. H. I. Morrison, (Miss) E. M. Sherwell, and W. Wilson. University of Cambridge: C. S. Beauchamp and C. M. Crichton. Glasgow School of Architecture: J. A. Browning and A. J. Smith. R.W.A., Bristol: C. R. Beecroft. Armstrong College, Newcastle-on-Tyne: M. Hayton and H. B. Thompson. Welsh School of Architecture: S. G. Roberts. Nottingham School of Architecture: G. A. Bethell. Robert Gordon's Colleges, Aberdeen: W. G. Henderson. Auckland University College: G. W. Johnson and R. D. Morgan.

FOREIGN POSTAGE RATES

Members of the R.I.B.A. in foreign countries (particularly those resident in Shanghai) have drawn attention to the inconvenience and expense they are continually caused through correspondence and trade catalogues despatched to them being insufficiently stamped.

Manufacturers and others circularising members of the Institute are requested to draw the attention of their despatch departments to the necessity for observing the postal regulations and the payment of adequate postage rates.

COMPETITION NEWS



REPLANNING OF STOCKHOLM

Three hundred and fifty designs, together with fifty alternatives, were submitted in the competition for the town planning of Lower Norrmalm, Stockholm, which closed on March 15.

KARL MARX MONUMENT

The Soviet Government has announced a competition for a design for a monument to Karl Marx, to be built on the square of the Palace of Soviets in Moscow. Competitors from all countries may enter. Prizes are offered for the three best designs of 100,000 roubles, 50,000 roubles and 30,000 roubles, respectively.

The monument is to commemorate the fiftieth anniversary of the death of Karl Marx. It is understood that as roubles are only of value in Russia, arrangements may be made for paying foreign competitors in another currency. Full particulars will be announced later.

Competitions Open

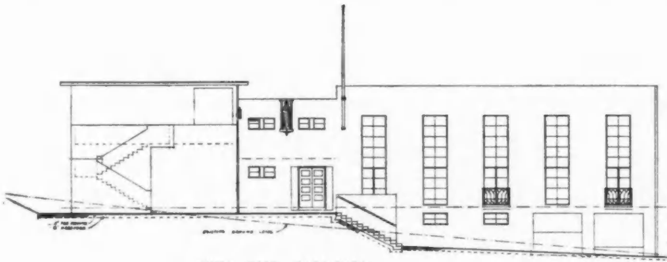
April 13.—Design for a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

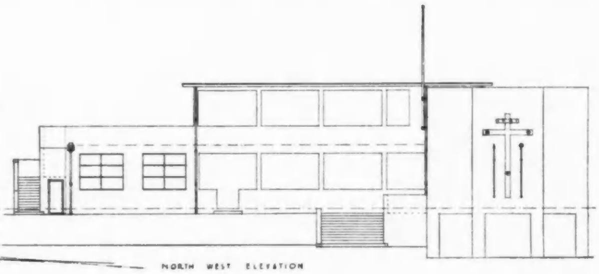
May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

In the description of the Royal Hospital School, Holbrook, on page 428 of our last issue, we inadvertently stated that "the site is not far short of a mile long from end to end . . . and the furthest of the hostels . . . is nearly half a mile from the assembly hall." The architects point out that the extreme length of the site is a quarter of a mile, and the distance from the furthest hostel to the classrooms is one fifth of a mile.

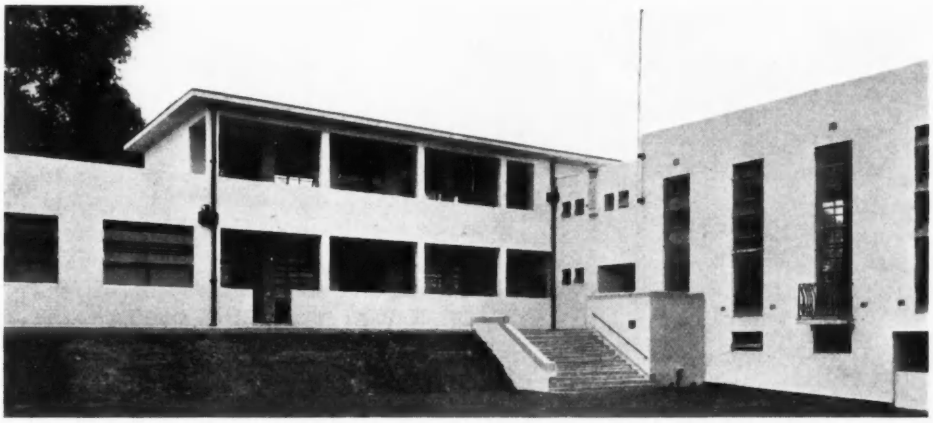
SAINT ANSELM'S R. C. SCHOOL, HARROW



NORTH EAST ELEVATION

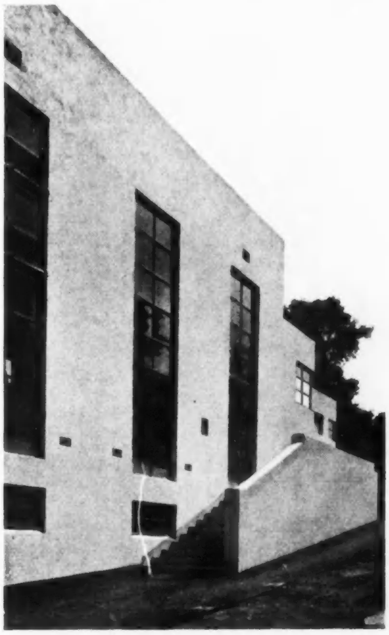


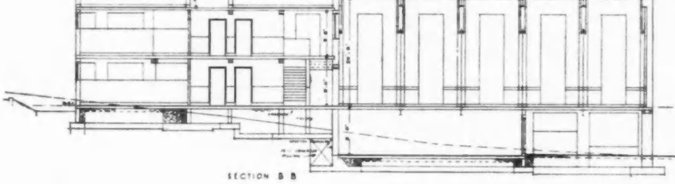
NORTH WEST ELEVATION



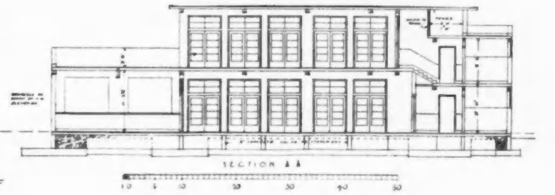
The classroom wing is on the left of this view, the assembly hall on the right. As will be seen from the plans reproduced overleaf, the two-storied portion of the former affords four classrooms, each for 40—girls on the ground floor, boys above—and each entered through glazed walls from covered verandahs. Forty infants occupy the one-storied portion to the left; on its roof is an open-air classroom. The assembly hall wing, built in 14-inch brickwork, with steel beams and concrete floors, is further illustrated and described in a supplement with this issue. The teachers' rooms, etc., are placed at the angle of the wings.

The classroom wing is steel-framed, with panels of brick, and has all its external surfaces plastered with a wood float, and coloured cream buff. Within, each classroom shows variants on a prevailing scheme of cream buff; the steel windows and radiators are painted deep orange, with bright green panels; the skirtings are black.





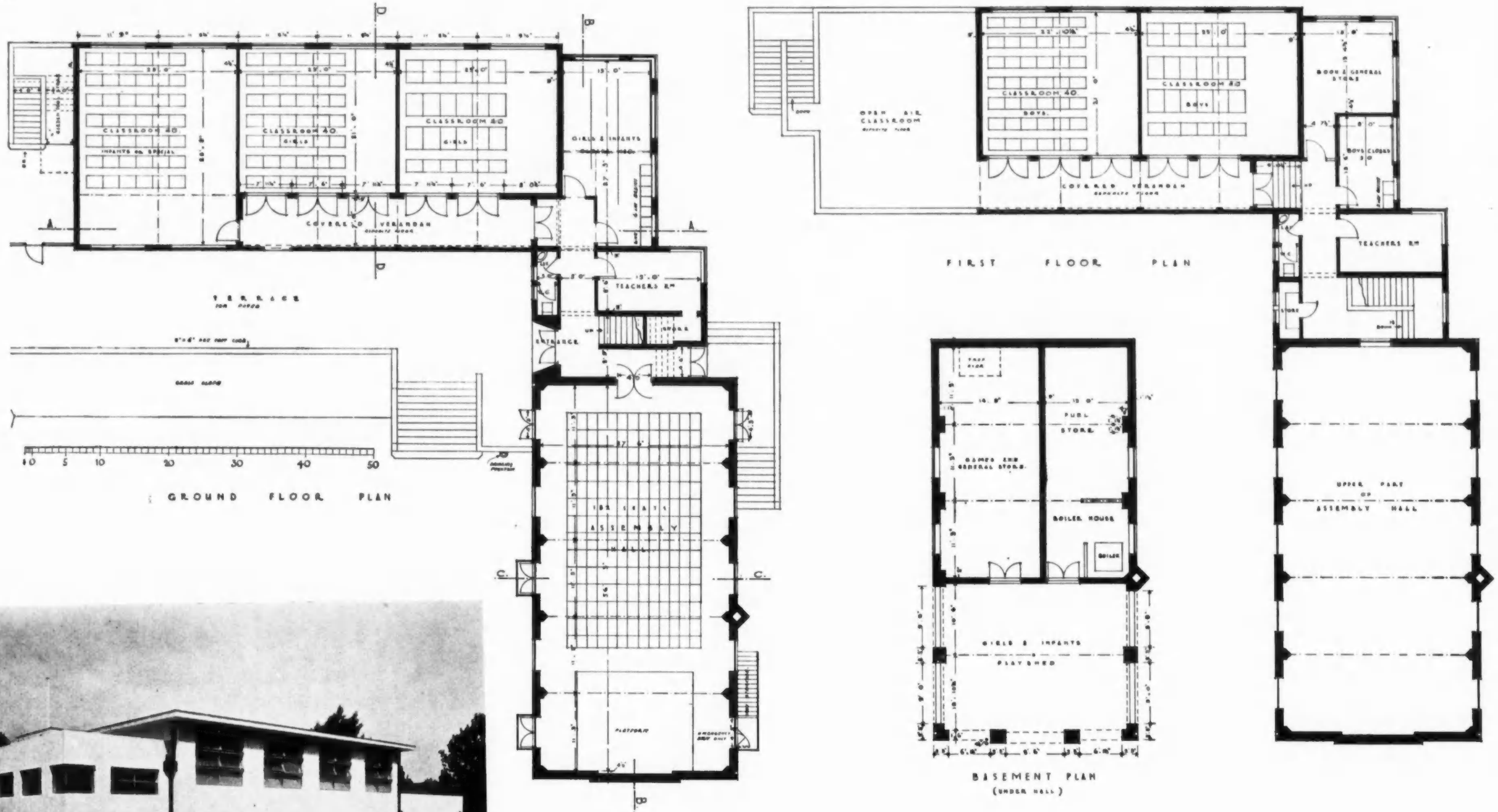
SECTION B B

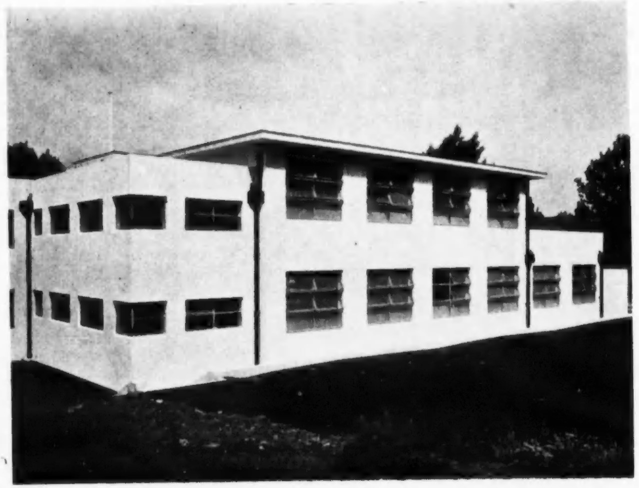


SECTION A A

DESIGNED BY ALLAN D. REID

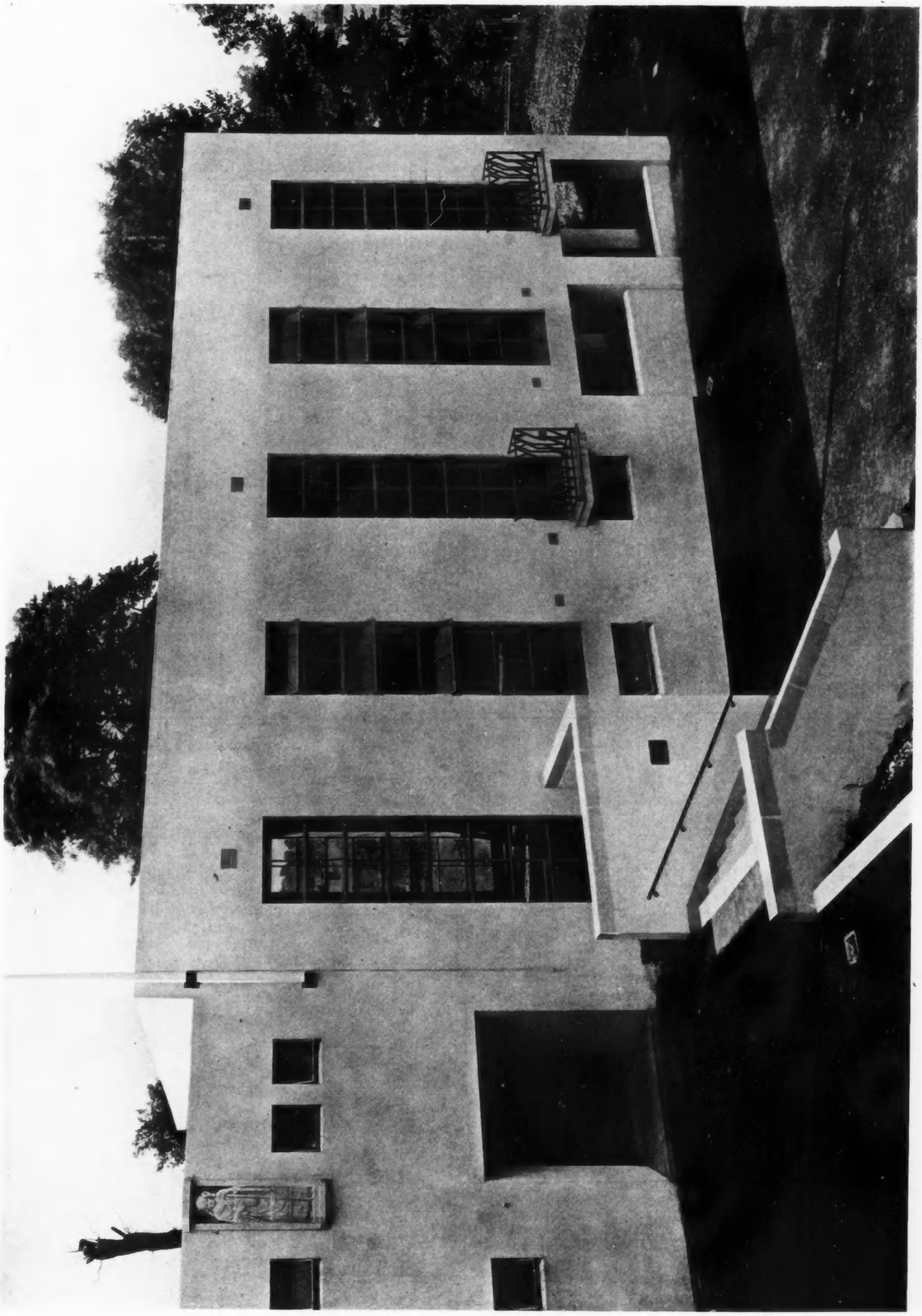
SAINT ANSELM'S R. C. SCHOOL, HARROW : BY ALLAN D. REID


CLASSROOM 40
INFANTS OR SPECIAL
CLASSROOM 40
GIRLS
CLASSROOM 80
GIRLS
GIRLS & INFANTS
COVERED VERANDAH
TEACHERS R^M
STORE
ENTRANCE
UP
TERRACE
GRASS SLOPE
182 SEATS
ASSEMBLY
HALL
PLATFORM
EMERGENCY EXIT ONLY
A
B
C.
D
0 5 10 20 30 40 50
GROUND FLOOR PLAN
OPEN AIR CLASSROOM
CLASSROOM 40
BOYS
CLASSROOM 80
BOYS
BOOK & GENERAL STORE
BOYS CLOSETS
COVERED VERANDAH
TEACHERS R^M
STORE
W.C.
DOWN
FIRST FLOOR PLAN
UPPER PART OF ASSEMBLY HALL
GAMES AND GENERAL STORE
FUEL STORE
BOILER HOUSE
BOILER
GIRLS & INFANTS PLAYSHED
BASEMENT PLAN
(UNDER HALL)

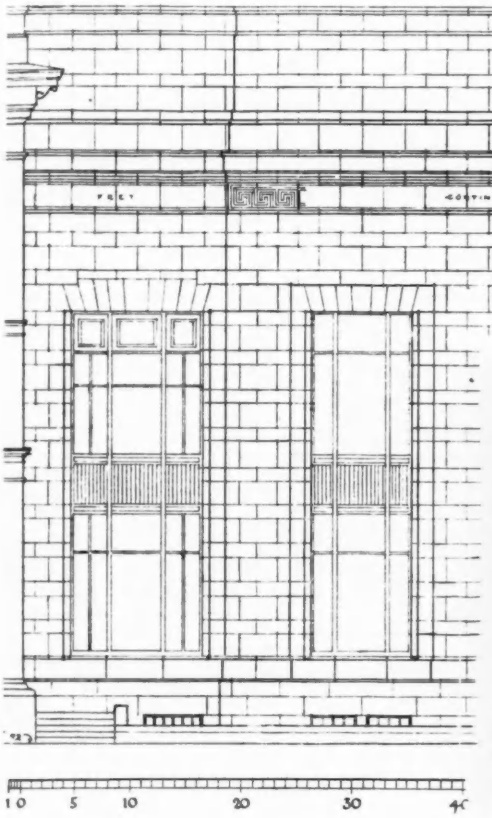


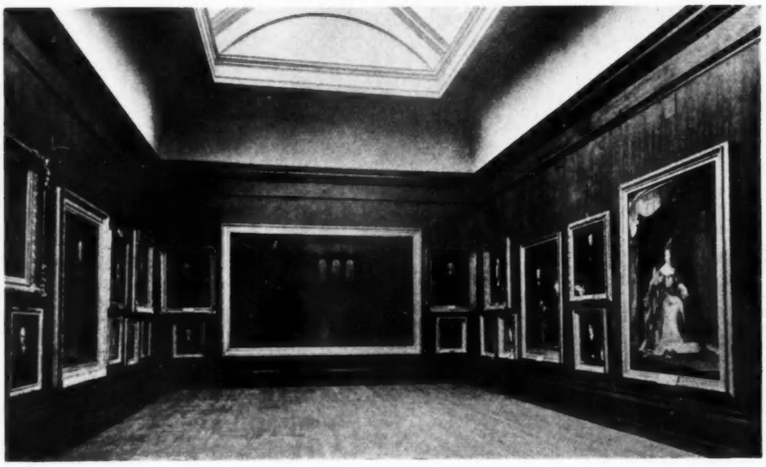
Left: the back of the classroom wing.

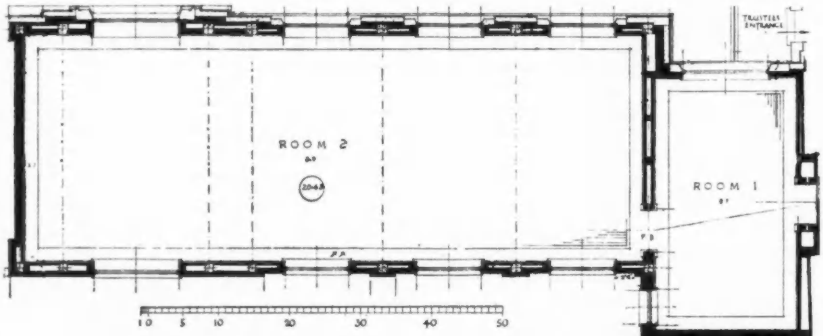
Below: the entrance and assembly hall.



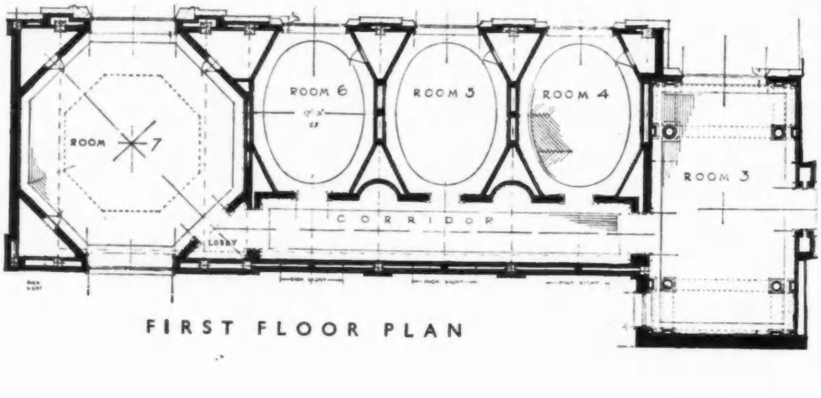
NATIONAL PORTRAIT GALLERY EXTENSION







GROUND FLOOR PLAN



FIRST FLOOR PLAN

Designed for H.M. Office of Works by
JAMES GREY WEST
(Chief Architect:
SIR R. ALLISON)

Last Thursday H.M. the King opened the Extension of the National Portrait Gallery, recommended in the Report of the Royal Commission of 1929-1930, the cost of which has been met by Lord Duveen of Millbank. On the second floor there are four inter-communicating top-lit galleries, one of which is shown above, and on the first floor five side-lighted galleries approached from the existing corridor. The ground floor consists of two rooms for reserve collections, and there is storage space in the basement.

The new structure consists of a steel frame with hollow walls, faced with Portland stone towards the public roadway and with stock bricks at the rear. The floors are of tile construction. Heating is by an accelerated hot-water system supplying pipe coils. The electric lighting has facilities to permit of easy re-arrangement of the fittings. Ventilation is by means of an extract system with high-level ducting and a roof fan-chamber.

These illustrations are supplied by H.M. Office of Works, and are reproduced by permission of the Controller of H.M. Stationery Office.

OLDE-MODERNE IDEALS

A Moralist Visits Olympia

[*By JOHN GLOAG*]

" Yes, sir, and these houses are absolutely modern throughout ; central heating and hot water ; in fact, ideal super homes."

" Modern are they : what about all this half-timbering on the outside ? "

" Well, you wouldn't like to live in a house with plain bricks outside, would you now ? "

CIVILIZATION begins above the £800 mark ; below that figure architectural barbarism has a cosy little triumph in the Village of Ideal Homes at Olympia. There is no need to describe this part for this year's building stunt at Olympia, but a few conversations with the experts in selling who are " putting over " these ramshacklements to the P.B.P* makes one wonder whether what may perhaps be called the Jerriarchy of England has not evolved a scheme of spurious satisfactions for people that is based on actual research work.

Maybe it is known to a slat how much a semi-detached villa residence has to be Tudored-up in order to get another £50 shoved on to the price. Meanwhile, the Jerriarchy has corrupted words that architects, in their innocence, attach to questions of design. *Modern* means central heating and a working hot-water system ; *super-modern* means two water-closets inside the house and a chromium-plated latchkey ; *design* means pattern and pattern only; *plan* means " something you don't really want to bother with, but this drawing shows you what the house looks like when it's up."

One visits the Village of Ideal Homes first because it is specifically concerned with building, but its ideals are olde-moderne, and the process of dragging tradition up to date that so many exhibits illustrate is as disturbing and as incongruous as a portrait of Henry VIII in the nude, smoking a cigar in a stainless steel holder.

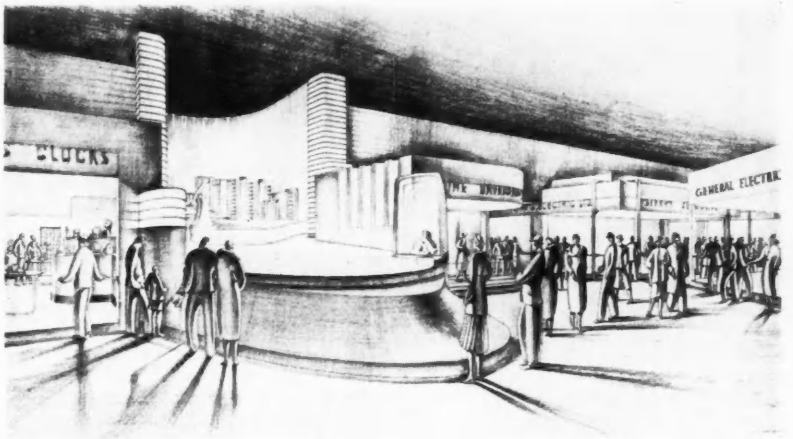
In the more expensive houses there has been a lot of hearty indulgence in that national pastime, playing for safety. There is more than one piece of inspired compromise, the most notable being an example of Italianate Corbusier. Most of the larger houses in the Village are good-looking in a near-Georgian way, but the whole housing exhibit is deficient in distinction. Inside these houses, the planning seems generally to have been directed for the purpose of obtaining the maximum number of alcoves, niches and odd spaces that can be turned into " decorative features " or used as parking places for the more unnecessary types of furniture.

Many rooms of pleasant proportions have been destroyed by their furnishing. Most of the firms that have undertaken the furnishing of these model houses in the Village evidently employ a discord expert, who, with almost unbelievable skill, leads a host of colours roaring into battle, and the fight goes on in every room above the dead body of furniture design.

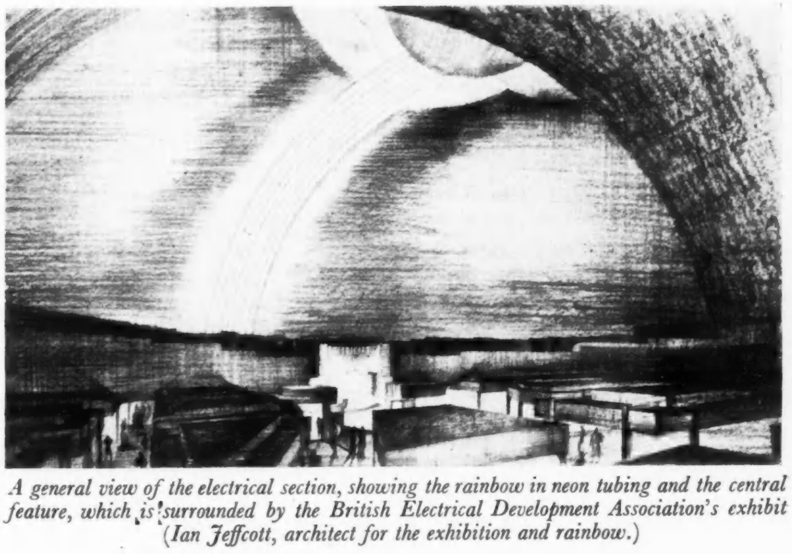
When one comes to a house well-planned in every particular, wherein the furniture, the textiles and the decoration are component parts of a considered scheme, it is like stepping out of a street where pneumatic drills and traffic noises are struggling for the mastery and passing into the restful security of a quiet room. There is such a house where nothing jars upon the eye ; where furniture and fittings have been planned with skill ; where rooms bear a pleasant and orderly relationship one to another, and where colour is used with lucidity and timber with understanding : it is the " J.P." House, designed by Leslie Mansfield. Externally it has a familiar English air. There is no bright young slang about it, and it wouldn't please the stark-vodka school of modernism ; but its calm and reasonable presence must do much to correct the mischievous muddles created by so many other exhibits.

The most impressive thing about the whole exhibition—and this particularly applies to the Grand Hall—is its simple architectural unity as a scheme of display. The stairways to the galleries on each side of the Grand Hall, and the orderly stands, and all the features that form the background of the show, suggest that the arts of display are vastly in advance of the ideas of the exhibitors, and have left the professional stunt-mongers nowhere. There are many stunts. The rooms of the Scientists, on the first floor of the Empire Hall, strangely suggest the Chamber of Horrors at Madame Tussaud's, while the rooms arranged by an assortment of the aristocracy for " Ideal Dinner Parties " resemble the stately homes of Hollywood.

Another stunt is the skyscraper flat. As a skyscraper it is unconvincing ; as a flat it is



The central feature in the electrical section of the Ideal Home Exhibition : it shows a tableau of modern industrial and domestic architecture, illuminated and equipped by electricity. (*Raymond McGrath, architect.*)



A general view of the electrical section, showing the rainbow in neon tubing and the central feature, which is surrounded by the British Electrical Development Association's exhibit (*Ian Jeffcott, architect for the exhibition and rainbow.*)

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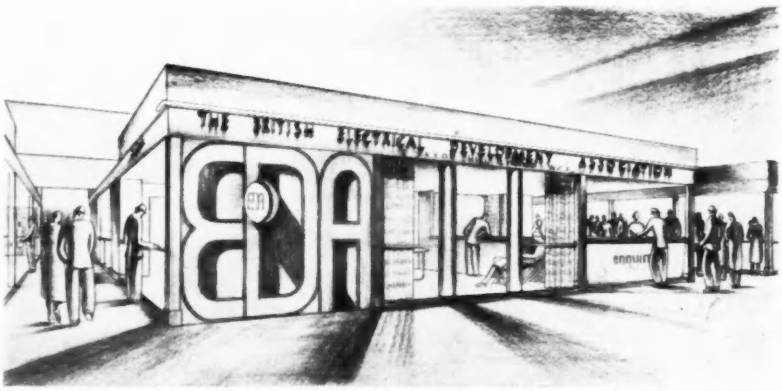
*Adapted military initials, signifying " Poor—ahem !—Public."

agreeably spacious and furnished with the brisk and stimulating modernism that Mr. Arundel Clarke practises. It is simple without being savage ; practical without being puritannical ; and it acts as a restorative after the "Ideal Dinner Parties," making us again optimistically conscious of the gifts of our own century.

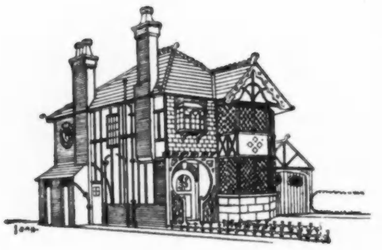
The furniture trade, tiring of its uneasy liaison with Miss 1925 Modernism (picked up at the Paris Exhibition), appears to be looking for another foreign mistress. There are some almost-Italian flourishes among the suites on some stands. Nervous liberties are being taken with unfamiliar forms, and although the result is on the whole more palatable than the Shoreditch-Jacobean style, there is no evidence that the furniture trade, dominated as it is by the personal taste of the retail buyer, can think for itself in matters of design. It is not thinking at all, and its tentative experiments are dominated by the sacred words : " Safety First."

It is obvious, from the works of man displayed in the Ideal Home Exhibition, that two systems of civilization are performing a sort of three-legged race in England today, but without any attempt at unison in movement, lacking which, of course, a three-legged race ends in an undignified manner.


THE BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION
BEDA
ENQUIRY

The west front of the B.E.D.A. stand. This consists of an enquiries bureau, lounge, dining room, kitchen and laundry, all electrically equipped. (*Raymond McGrath, architect.*)

WHAT IS TO BE DONE ABOUT



THIS?

[*Last week* "*Penates*" *discussed speculative building, and urged* "*the provision of well-planned houses that conform to a decent standard of design.*" *We pointed out in our foreword that as it is almost certain there will shortly be a revival of building work, especially of small house building, a full inquiry into contemporary speculative small house building practice is of immediate importance. The series of articles, of which the second is printed below, will outline the why and wherefore of the present position, and suggest means of improving it.*—ED., *A.J.*]

2. The Speculative Architect

[*By EDWIN GUNN*]

ARCHITECTURAL opinion—the architectural opinion which we are in the habit of calling " informed " —continually inveighs against the persistent wrongheadedness of most suburban development ; but the development continues almost everywhere on the same lines, and the only hopeful experiments, such as " Amenity " clauses in town planning schemes and voluntary panels of architects, appear to misfire or be side-tracked, so that their possible function for good is unavailing.

With the abolition of the Housing Subsidy and probable cessation of Municipal Housing (whatever our views as to the political aspect of it) we must awake to the enlarged possibility of a further degradation of the general standards of seemliness, for though much Municipal housing has been deadly dull (the best of it, of course, is very good) there are worse things than dulness, and a vision of the type of development common in " private enterprise " housing for the middle classes, extended to the new homes of the working classes, will make architects, and any there may be who sympathize with their views, shudder.

Practically everyone who has given thought to such matters at all will agree that the worst manifestation of modern building is the " free " estate, where anyone can buy land by the foot frontage in any sized plot fancied, and erect thereon any type of structure he pleases in any position short of encroachment on a defined frontage line.

Even the most uninspired efforts of the mass-production building speculator fail to descend to the horrid depths of such a scene. From this it should be readily deduced that some measure of uniformity (or possibly regularity is a better word) is a necessary component of success in any close-built scheme. So far, architects are likely to agree, but of the general public one has to feel doubts—otherwise why the present unrelated jumbles ? Anyway, let us note the point and pass on to the next.

I have been genuinely surprised to realize on reflection that there should be at this day practically an untouched field for architects. The small house, as seen by the profession, has hitherto been either a cottage or group of cottages, or a version of the small country house—the former for what has come to be known as " housing work," and the latter for such private clients as venture to commission them. Even so, the number of architects having names known to the profession, to whom their fellows would confidently entrust the design of either class, secure in the knowledge that the results would be at once habitable and seemly, makes a less extended list than might be supposed.

Between these two classes of dwelling, however, come the homes of the multitude who do not consider themselves cottagers, and have not the means or aspiration to inhabit country houses, however small. For this class the suburban speculative builder has catered ; and apart from banality of design and occasional flimsiness or bumptiousness of structure, he has usually catered well, in the sense of " giving the public what it wants."

The designs for work of this type must be made by somebody, and in the sense that anyone who designs a building is an architect, architects may be said to have had their share in this work, since the deposit of plans with local authorities became obligatory, but, with rare exceptions, as *Architecture*, this is an untouched field. How to capture it for architects, who (did they but try) could assuredly beat the speculative builder at his own game, alike in convenience, seemliness and cost ?

First, it must be owned that many architects who have secured entry into the nearest adjacent field (that of cottage design) have sadly failed to restrain themselves and have endeavoured to give too liberal a measure of architecture, which was probably what the late Sir Charles Ruthen meant by his agitating and freely-quoted phrase accusing the profession of spoiling their chances by " profiteering in gables "—a dangerous phrase, taken up quite wrongly by the public, who are ever ready to criticize architects.

Such criticism as is justly merited may be launched along two divergent lines—on the one hand, lack of interest in the problem, or failure to appreciate that great skill and judgment are necessary, which amounts to the same thing ; and, on the other hand, over-enthusiasm. The first-named failing is evinced by a tendency to relegate any such "small work" to the junior draughtsman, or by mere carelessness for practical details, such as the placing of internal doors. A difference, one way or the other, of a few inches in the position of a door may render wall space usable or unusable, but that is only an example. The second failing —over-enthusiasm—shows itself in such ways as too elaborate detail, or in sacrifices to symmetry, either in plan or elevation. A door nicely placed on a centre-line *may* be cursed by occupants for ever after, and a window pushed to one corner of a habitable room to achieve external symmetry, which (at its best) tends to a doll's-housy look in work of the smallest scale, are features which it is desirable to avoid. They cause the public to rail against architects—as, by the way, I seem to be doing now !

Now, how is the attack to be opened ? It appears to me that with the main object of setting better standards, it may be advisable for architects to pocket some of their professional dignity—I know, of course, that really *nice* architects never seek work, but wait to be "approached." Alas ! in this field they are still waiting ! There are evidences that sham half-timber Tudor has reached saturation point, as the Bathstone lintel type of house apparently did some years before the war. The fact that at least one large-scale speculative builder has thought it worth while to embark on "Modernist" houses may show that time is ripe for a change.

The public has apparently two standards (not necessarily shared by the same members of it) ; they admire what they recognize, or what is novel. Modernism has had a good press, and its tenets as applied to building will at least enable its followers to avoid the pitfalls of symmetry, and to give the public the ample windows which it seems to crave. It is at least possible that a younger generation would respond to the chance of occupying a modern house, if it were available as part of an ordered layout, free from the risk of discordant elements, and at reasonable cost (either for rent or purchase) and clear of eccentricities.

What precise form such a modern house should take may be a difficult point to settle. We know that the small suburban house has settled down to what is practically a standard plan —semi-detached, with space for garage, two reception rooms of practically equal size, a diminutive kitchenette, and either three or four bedrooms, with a bathroom and w.c. How far does this represent the current or best habit of living ?

It must be (rather sadly) allowed that the paired type of house-plan offers so many advantages that, despite the fidgetty appearance which it produces in bulk, it will be difficult to oust. Its main advantages, as compared with terraces or groups, are :—

Greater facility in lighting by its extra face.
Ease of access to garden for manure or soil.
Handiness of approach by tradesmen and outlet for dustbins.
Separation of individual drains.
Subjection to possible direct annoyance indoors by one neighbour only.

— a formidable list.

As to accommodation, the only point in the standard plan which seems open to serious question is the twin reception rooms. That two rooms are a virtual necessity for comfortable family life may be taken as certain—adult study or child's homework otherwise becomes needlessly difficult. The problem is whether, in property of this class, the swing might be towards the working-class custom of kitchen-meals-room and parlour, or to the now usual higher-class lounge and dining-room, the former being as large as can be afforded and the latter as small as will permit use for its definite purpose. As in most houses of the type imagined only one fire will normally be kept, and no servant will be employed, the superior convenience of a kitchen-meals-room can only be resisted from sheer snobbery.

The adoption of an arrangement such as is common in American tenement houses, with a kitchen and meals-recess as one apartment, and a good-sized living-room for general use, seems a happy compromise, provided that prejudice does not shun it—kitchen equipment is no longer matter to be ashamed of, as in the days of the greasy stone sink and blackleaded smoky range.

Structural scheme is not so easy to determine. It is clearly necessary to give the public its big windows free from the obstruction of many panes, even though they may discover too late that undue glass area dissipates internal warmth (which can in some measure be overcome by extra heating), and admits unwanted heat—quite uncontrollably. As to the flat roof, which is so constantly said to avoid waste expenditure as unusable space, if that were all there were in it, the answer would be easy. The pitched roof in point of fact need cost no more than the flat, and if from its nature unused space is created, who is the worse for that ?

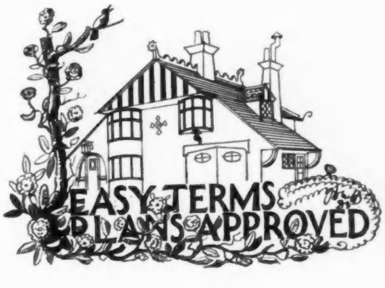
I have previously dwelt upon some of the arguments for an inclined, or water-shedding, roof for rain- and snow-infested latitudes, but in addition to these arguments the failure of flat roofs (without special provision) to furnish space for storage tanks or to insulate against heat and cold or the noise of heavy rain must not be overlooked.

No one keeping his eyes open can have failed to observe, also, the frequency with which parapet walls become saturated after heavy rain, due to their double exposure, and many buildings of which they form a part become much disfigured from this cause even if no worse consequences ensue, such as penetration of this saturation below the upper ceiling line. It is no good shirking these points—they must be faced and overcome.

Whither does all this lead ? I suggest that a group of architects might seek out a virgin site, well situated for modern transport ; prepare a layout and detailed plans, financial calculations, etc., and proceed in all respects as a building speculator would do —in obtaining capital and building finance.

I am sure that they could beat the speculator at his own game, and could convince the board of any alert building society of their ability to do so—but the site must be carefully chosen, the size of the unit must be capable of rapid absorption, and the individual plan neither humdrum nor extremist, while publicity must be forceful.

Who will set the ball rolling ?



Our Industrial Towns

"Modern Architecture and Town Planning" was the subject of an address by Mr. E. Maxwell Fry, A.R.I.B.A., at a meeting of the Design and Industries Association, held in Manchester on Wednesday last.

In its very nature modern architecture, he said, was concerned with towns as organizations, as structures, as the subjects of grand urban designs. Many of our industrial towns were in the rottenest state, their centres in decay, their road plans confusion perpetuating waste. But surely this would not always be so. If town-planning became infused with the will to create on the basis of structure and social service, and would again confront the problem of urbanism, then Manchester and other cities could be recreated on a new model. Modern architecture would design buildings with efficiency and economy on a plan providing economical services, and would also provide, with light and space, a sense of the grandeur of urban living.

LETTERS *FROM* READERS

ARTHUR WELFORD, A.R.I.B.A.

BAIRD DENNISON

A. N. GODDARD, A.R.I.B.A.

*HERBERT KENCHINGTON, F.R.I.B.A.**

WATSON AND JOHNSON

PERCY J. WALDRAM

C. B. COLSTON
(Hoover Ltd.)

A. LEDAMUN

[Owing to the pressure on our space we are compelled to hold over several letters from this issue.—ED., *A.J.*]

Financing Public Works

SIR,—With regard to current suggestions for expending large sums of money on public works, rebuilding slums, etc., accounts which I have read of these proposals pay no attention to the following facts :—

(a) All money raised will be a debt against the public, to be repaid either within a year, or spread over a period of from forty to sixty years.

(b) The money will be created and lent by banks (at no cost to themselves ; vide McKenna, *Post War Banking*), and will be recovered in taxes and destroyed.

(c) These loans will be inflationary and will therefore raise aggregate prices of goods for sale to the amount of the loan.

If loans are to be repaid within the year the public will repay twice over, in prices and in taxation. If the repayment be spread over a term of years, say forty to sixty, the public will pay for the loan once in prices, and will repay capital and interest to an amount about three times the amount of the original loan ; four times in all.

You can't abolish slums that way.

ARTHUR WELFORD

[The above letter was submitted to our leader writer, who has sent us the following reply.—ED., *A.J.*]

(*a*) : *Certainly the money raised will represent a debt. What of it? As the Minister of Health has himself pointed out* (*Report for 1931-32, p. 150*) "*It is desirable to refer at the outset to the impression, which may exist in some quarters, that the mere existence of local debt is in itself a symptom of financial ill-health. While that is true of money borrowed to replace a deficiency in the revenue needed for current expenditure,* it is not true of money borrowed to finance capital expenditure on permanent works." *In other words, borrowing, e.g., for unemployment benefit, is unhealthy ; borrowing for public works is healthy.*

It should be clear that the loan debt of a local authority balanced by assets in the form of public works is similar to the capital of a company. The capital of a company is a debt "against" the shareholders.

(*b*) : *How and why will money be created? Deposits with the London Clearing Banks amounted on an average during February to £1,956,700,000. Why not use some of this?*

(*c*) : *It is not clear what is meant to be conveyed by the term "inflationary," but purchasing power will certainly increase, and of course the aggregate prices of goods sold will rise. The value of an aggregate of goods sold is equal to the money exchanged for them. But that* does not *mean that* unit *prices will rise appreciably. Money demand will increase, and the aggregate prices* (*or value*) *of goods sold will increase, but chiefly because of an increase in production, not an increase in unit prices. Under present circumstances, wholesale prices would rise somewhat and retail prices be little disturbed. But more would be sold and more produced. That is precisely the benefit which a policy of public works confers on industry in general.*

Far from the increase in the total value of goods sold meaning that the loan will have to be repaid twice—or four times—over, it means that it will partly pay for itself. As I have pointed out in leading articles in former issues of the JOURNAL, *the increase in production—in the value of goods sold—will bring about an increase in employment and an increase in the yield of taxation which, together, will save the Exchequer two-thirds the original expenditure.*

YOUR LEADER WRITER

Not a Church

SIR,—Mr. F. R. Yerbury has taken so much trouble to correct the description of a very familiar building ("in the Fatherland") which appeared on page 387 of your issue for March 22, that it seems a pity he should not have taken the trouble to spell its architect's name correctly.

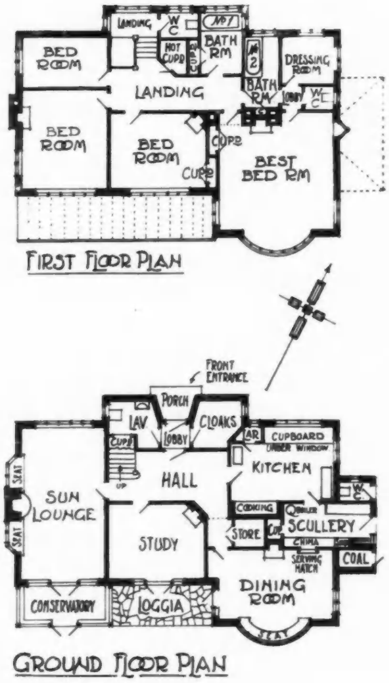
BAIRD DENNISON

A Woman's Ideal Home

SIR,—From the tone of Mr. Redgrave Cripps's letter in your issue for March 15, I had hoped to spend an interesting hour studying his plans and report. I eventually spent part of that time, but it was with amusement that I read his comments on Miss Craig's efforts and his remarks on his own skill as the designer of an "ideal" house.

My amusement was ended more quickly than the report, as I had completely failed to find the point of Mr. Cripps's joke.

I do not know what Mr. Cripps means when he refers to "labour-saving conveniences" in connection with the lavatory and cloaks. Does it save labour to separate the two compartments ; and how does he reconcile his



First and ground floor plans of Mr. Redgrave Cripps's "ideal" house, referred t in a letter on this page.

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* We heartily agree with the suggestion of this correspondent. Actually the way has already been shown ; the first of a series of Information Sheets compiled by manufacturers appeared in the advertisement pages of last week's issue.—ED., *A.J.*

" idealism and attention to detail " with the very small entrance lobby, having four doors and the obstacle of a single step at each? It must be quite an adventure to use this part of the house.

The conservatory must be very useful as a store for sun rays prior to their use in the " Sun Lounge."

Was the " useful store " tucked away by the dining room door really required, or was it an accident of planning ; and how would the scullery have been arranged without the aid of this store? Of course, the north-east window of the kitchen could have been sacrificed and the studied symmetry of this front lost.

I have not yet discovered how the " poor unfortunate maid " reaches the outside w.c. or coal store from under cover. Is there a secret way?

Even the prospect of the best bedroom planned *en suite* fails to attract me. Mr. Cripps should have confined himself to the singular in the last paragraph of his report.

I believe that Miss Elizabeth Craig is an expert cook.

A. N. GODDARD

Information Sheets

SIR,—The Information Sheets you are publishing contain such valuable data, that I feel sure before long it will become a habit in architects' offices to refer to them whenever definite dimensions are required. It occurs to me that manufacturers would do themselves and the profession a good turn if they would publish Information Sheets of similar size to those you are producing, containing the sizes, methods of fixing and similar particulars of their goods, for which reference has now to be made to a miscellaneous collection of catalogues. I do not mean the full contents of catalogues—that is too much to hope for yet awhile—but such details as a draughtsman requires—standard sizes of steel windows, sizes and methods of fixing laminated wallboards, details of patent roof glazing, and a hundred and one other particulars that would readily occur to the specialists.

The manufacturers' sheets could then be kept in the same or a similar file to your collection and one would usefully supplement the other.

HERBERT KENCHINGTON

External Walls

SIR,—We should be glad to know the experience of any of your readers with 4½ ins. external walls (either reinforced brickwork or concrete) as panels to a steel or reinforced concrete framed building, where the penetration of outside moisture to the inner face must be prevented. We gather from hearsay that such thin walls are in use, but feel nervous of adopting them. We should be glad of information particularly on the following points :—

1. What forms of internal lining are found most satisfactory as regards resistance to outside moisture (mainly driving rain) and also resistance to internal condensation?
2. In the case of thin reinforced concrete panels, are shrinkage cracks an inevitable evil only to be remedied by a suitable internal lining?
3. Is any trouble experienced from penetration of outside moisture attacking the floors (i.e., either the structural part of the floor or the floor finish)?
4. In the case of 4½ ins. reinforced brick walls, what is regarded as the maximum safe span and area of the panels, and what proportion of the number of courses is it necessary to reinforce?

WATSON AND JOHNSON

Technical Paper No. 7

SIR,—Mr. Martyn's letter on p. 434 of the last issue of THE ARCHITECTS' JOURNAL contains an inaccurate reference to " daylight factor grilles," which, although of small importance, should be corrected.

The device of measuring daylight factors by measuring grilles superimposed on photographic or other images of visible sky projected by a lens was first described in *The Illuminating Engineer* of December, 1931. In 1932 they were exhibited at the Physical Society and the Royal Institution, together with an instrument utilizing them, now made by Messrs. Everett, Edgcumbe & Co. An article by Mr. Stevenson, showing how they could be used in the " photo-theodolite " in the *Journal of Scientific Instruments*, March, 1932, acknowledges and quotes the prior publication in *The Illuminating Engineer*.

Their use is fully protected by my patent No. 388,852.

PERCY J. WALDRAM

Building—A Sound Investment

SIR,—The question of building is very much in the air at the moment and it occurred to me that your readers might be interested in the experiences of a firm which has just completed a new factory.

Our factory is in the country, facing a golf course, so that we shall never be overlooked. We have adequate playing fields, light and sunshine, first-class rail and road transport and completely satisfactory housing accommodation for our workers.

These considerations did not put 5 per cent. on the total cost of the whole building.

The new factory has paid us. Putting it at the lowest estimate, it has proved good business, a sound investment. We have increased our output, and in addition we have 600 healthier and happier workers. Finally, we have carried out the work when materials and money were cheap.

C. B. COLSTON

The Popularity of Reed Thatch

SIR,—It would be interesting to have a definition of the æsthetic principles which make reed thatch so popular with many architects.

Is it purely tradition or has thatch some inherent beauty which gives distinction to a house? I should like an explanation from your readers.

A. LEDAMUN

Advanced Course in Building Science

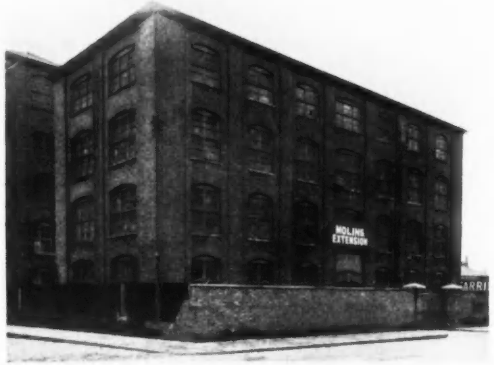
The authorities of the Imperial College of Science and Technology are making arrangements for a one-year full-time course of post-graduate type in Building Science to be held at the Imperial College, South Kensington, during the session 1933-34, commencing in October, 1933.

The object of this course is to disseminate the knowledge of modern scientific research which has been gathered during recent years at the Building Research Station and elsewhere, and the staff of the Building Research Station will collaborate with the staff of the Imperial College in the conduct of the course. The course will comprise lectures and laboratory work in all branches of Building Science, and is intended for suitably qualified persons who are concerned in the scientific aspect of building. The Board of Education are prepared to offer financial assistance in the form of studentships to a limited number of teachers of Building Science in technical schools and colleges recognized by them.

For particulars of this assistance applications should be made to the Secretary, Board of Education, Whitehall, London, S.W.1. Other persons desiring information regarding the course and conditions of admission should apply to the Secretary, Imperial College of Science and Technology, South Kensington, S.W.7.

BEFORE — FROM FACTORY TO OFFICES — *AFTER*

A CONVERSION
BY
W. WYLTON TODD

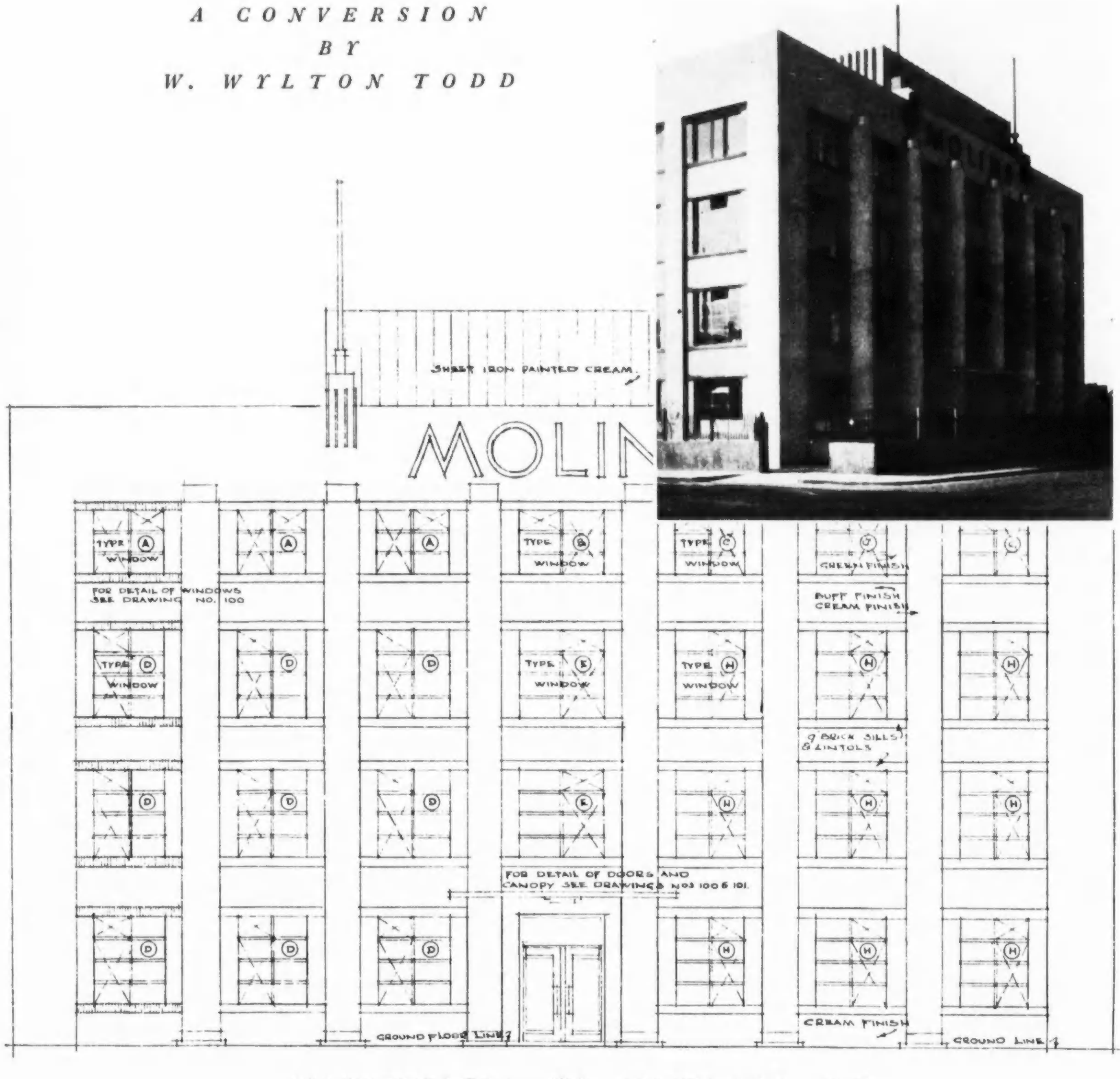


In converting this old factory into modern offices the existing walls and foundations were found to be sound, and were used as a basis for the new design.

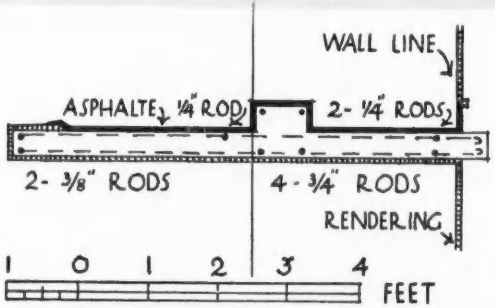
The curved window arches were straightened, and new cills and lintols installed, the roof was cut back and the walls were carried up to form a parapet. The brick piers between windows were made oval in section, capped with plain stainless steel caps, and a new entrance doorway was formed. The whole of the structure was rendered in cement stucco in three colours—parapet and corner piers and oval piers, cream; wall between, buff; and cills and lintols, plum brown.

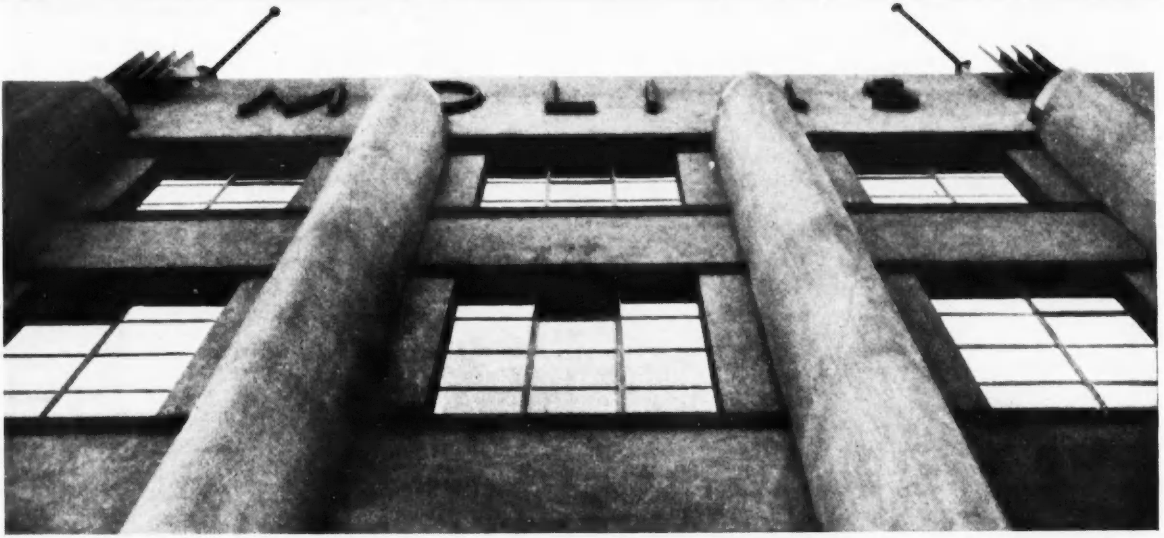
The bracket fins overhanging the parapet and supporting the flagstags are of stainless steel. The roof feature, which completes the new design, houses the lift machinery.

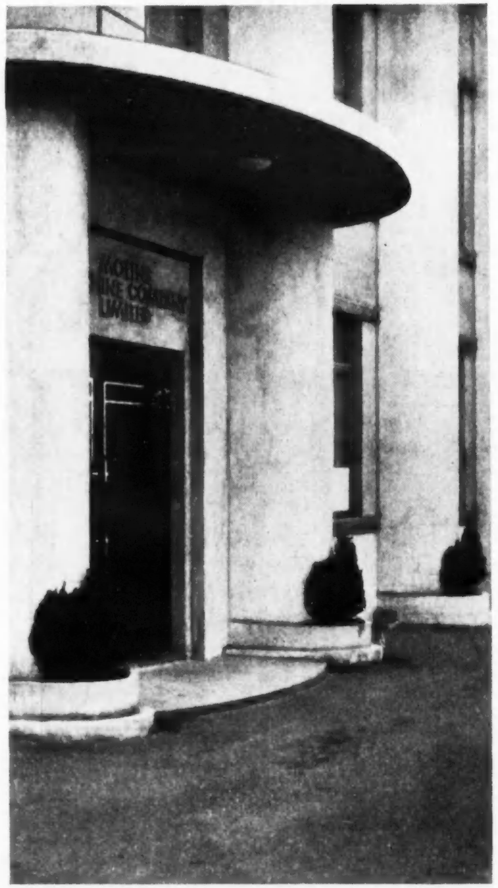
To accentuate the horizontality, the horizontals of the sash windows were painted silver, while the verticals were painted buff. The name was carried out in metal with a black enamel finish. The entrance door is finished in ebonized wood, with long, stainless steel handles, having red bakelite grips. The oval piers finish in projections, housing plants. The drawing below gives details of the concrete canopy reinforcement.

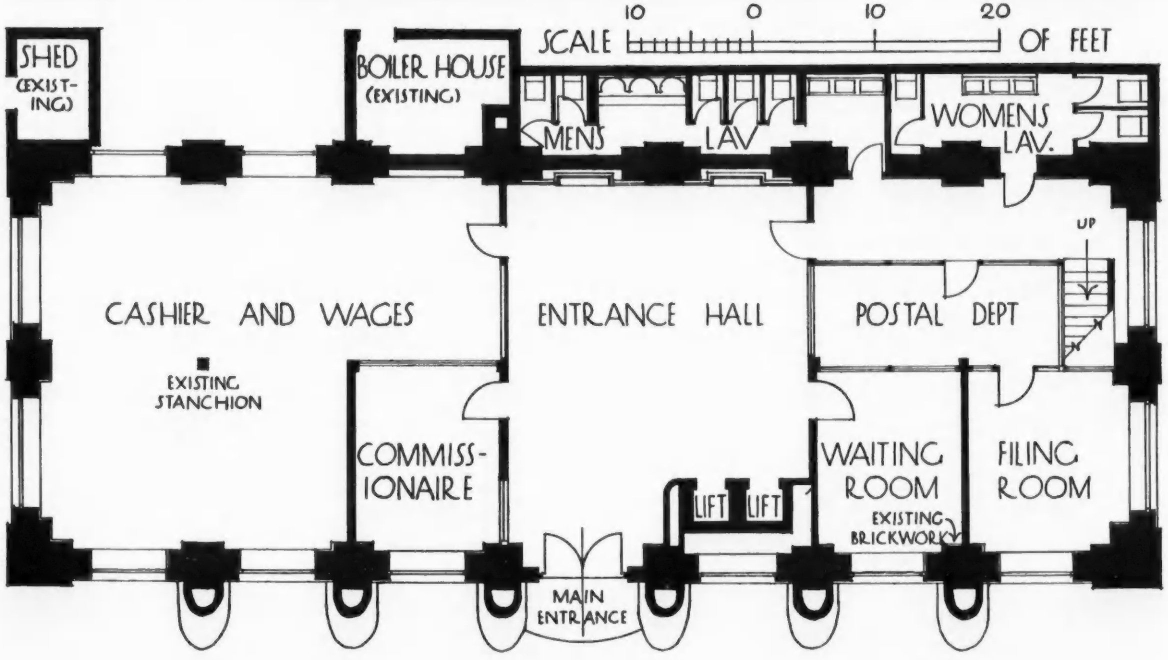

SHEET IRON PAINTED CREAM
MOLIN
TYPE A WINDOW
FOR DETAIL OF WINDOWS SEE DRAWING NO. 100
TYPE B WINDOW
TYPE C WINDOW
CREAM FINISH
BUFF FINISH
CREAM FINISH
TYPE D WINDOW
TYPE E WINDOW
TYPE H WINDOW
BRICK SILLS & LINTOLS
FOR DETAIL OF DOORS AND CANOPY SEE DRAWINGS NOS 100 & 101.
GROUND FLOOR LINE
CREAM FINISH
GROUND LINE

ELEVATION TO EVELYN ST

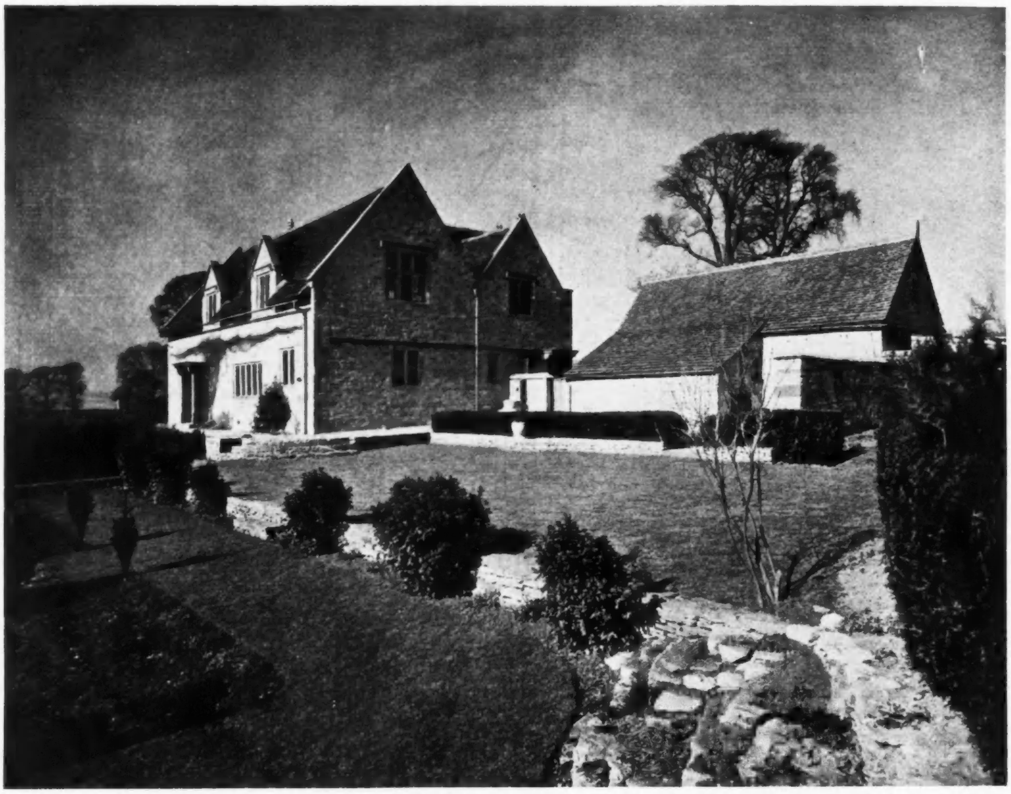

WALL LINE
ASPHALTE
1/4" ROD
2 - 1/4" RODS
2 - 3/8" RODS
4 - 3/4" RODS
RENDERING
1 0 1 2 3 4 FEET





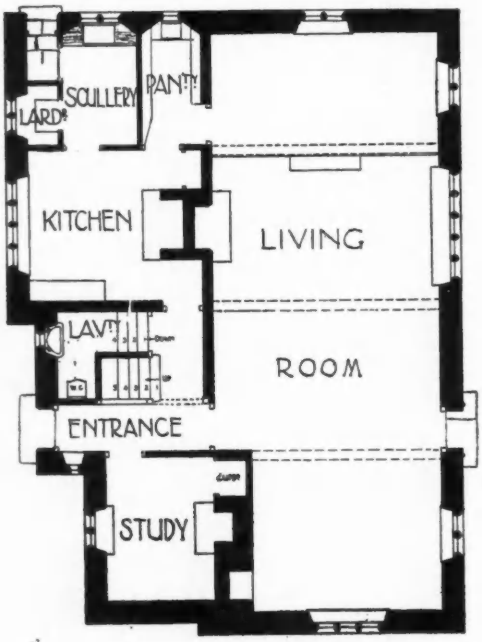

SCALE 10 0 10 20 OF FEET
SHED (EXISTING)
BOILER HOUSE (EXISTING)
MENS LAV
WOMENS LAV.
UP
CASHIER AND WAGES
EXISTING STANCHION
ENTRANCE HALL
POSTAL DEPT
COMMISSIONAIRE
LIFT
LIFT
WAITING ROOM
FILING ROOM
EXISTING BRICKWORK
MAIN ENTRANCE

HOUSE AT BURFORD, OXON.

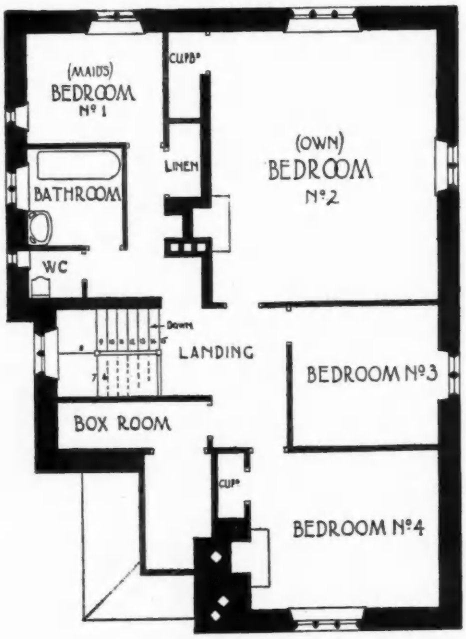


DESIGNED BY BAILLIE SCOTT AND BERESFORD

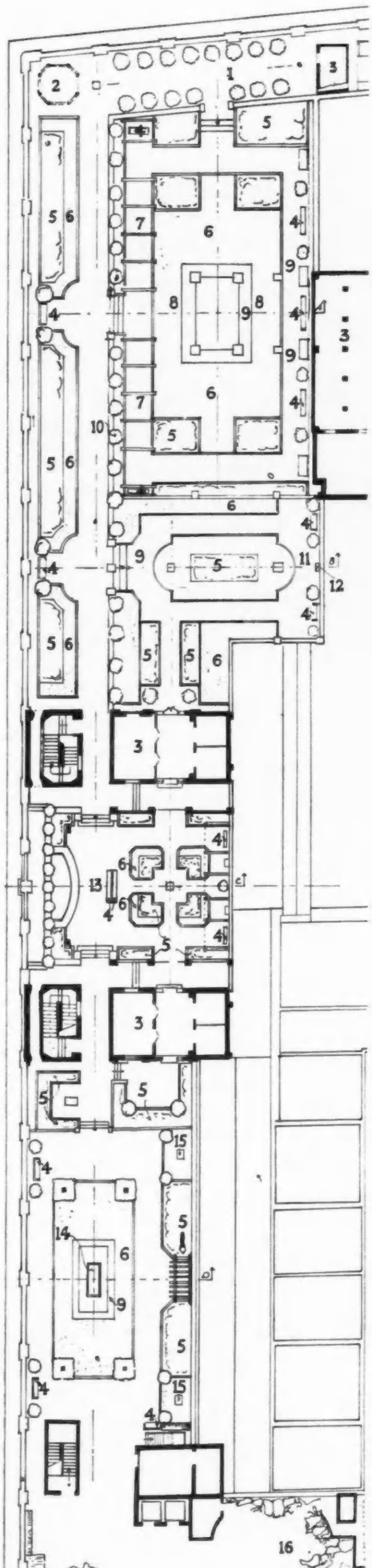
The architects' clients had occupied what had once been one of the old shops in the High Street, Burford, but this did not give them the large room they wished to have for various entertainments and meetings. This house, reproduced from HOUSES AND GARDENS, *reviewed on page 471, shows the plan evolved from their requirements. It is a small house with a large room, and the building is in the local tradition. The photograph was taken looking in a south-easterly direction from the garden.*


SCULLERY
PANTY
LARDR
KITCHEN
LIVING
ROOM
LAVY
WC
DOWN
UP
ENTRANCE
STUDY
CUPBD

The GROUND FLOOR Plan


(MAIDS) BEDROOM Nº 1
CUPBD
LINEN
(OWN) BEDROOM Nº2
BATHROOM
WC
DOWN
LANDING
BEDROOM Nº3
BOX ROOM
CUPD
BEDROOM Nº4

The FIRST FLOOR Plan



THE ROOF GARDENS AT SELFRIDGE'S

Designed by Allen and Sudell, and Described by
LADY ALLEN OF HURTWOOD

THE thought of making a garden, of any kind, on an arid asphalt roof in the midst of a town, usually fills the heart of the pure gardener with feelings of acute discomfort and distaste. The difficulties are many, as in all gardens, but as the accompanying photograph shows, it is possible to surmount the majority and grow a wealth of flowers that can hold up their heads with pride amongst the company of the country-grown.

Moreover, there are compensating advantages, the chief amongst them being that the whole area is under complete control. There are no ill-kept neighbouring gardens to breed pests and diseases, no weed seeds blown from the untidy hedgerows, and in addition, each bed being a separate entity, it is practicable to clear it at a moment's notice of all its soil should this become infected in any way.

At no point in the series of gardens on Messrs. Selfridge's roof was there allowed a greater depth of soil than eighteen inches, except in the tubs. Consequently the composition of the soil and the attention to drainage became of the first importance. In addition, it must be remembered that, whereas on terra-firma moisture is always rising from the lower soil by capillary attraction, this great benefit is absent on a roof. All moisture must come from above.

This is a strong additional reason for giving the most experienced attention to the admixture of the soil, by creating a medium that will hold both moisture and nourishment and also be sufficiently stout to provide the necessary anchorage for plants.

The question of drainage is of primary importance, and this must be adjusted in such a way as to prevent unnecessary moisture being lost and at the same time save the beds from becoming sour and waterlogged. The slight fall of a flat roof will provide a certain degree of drainage, and in leading the superimposed drains along this fall, care must be exercised in the arrangement of the outlet tear-holes so as to avoid leaving cul-de-sac pockets of sour soil in the corners and odd angles of beds.

The difficulties and expense of making a roof garden would clearly be diminished considerably if its design and construction could be built up as an integral part of the building. The main problem of drainage would at once be greatly simplified, and the disposition of the beds and the general lay-out could become more flexible, being less hampered by restrictions of weight in certain areas. It is to be presumed that the roof would be formed and strengthened in the course of building in the light of a knowledge of the loads it had to carry. At the moment it is the practice to call in the roof garden architect after the completion of the building. Consequently the garden has to be designed in accordance with the weight-bearing capacity of different parts of the roof.

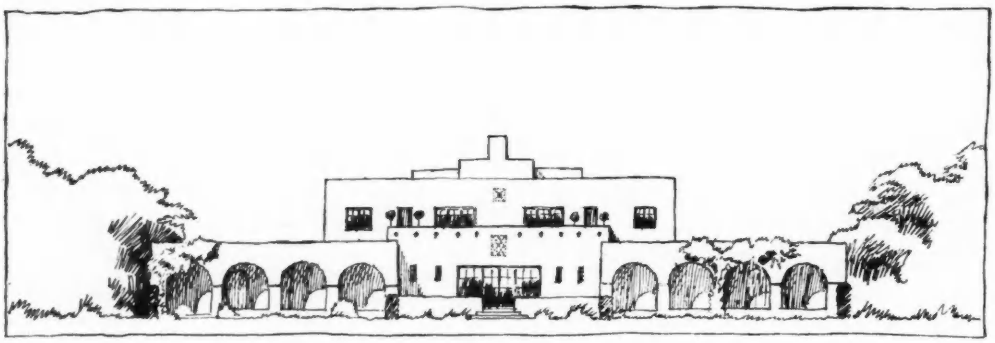
Judged from a horticultural point of view, the success of the series of gardens made on Messrs. Selfridge's roof, which are believed to be the most extensive in the world, has excelled all expectations. From the four years' experience gained there a comprehensive list of plants that do better than others has been compiled, and this list is an unexpectedly extensive one. In common with all gardens, certain subjects thrive better than others, and obviously the happiest results are obtained by planting freely those which settle down most comfortably.

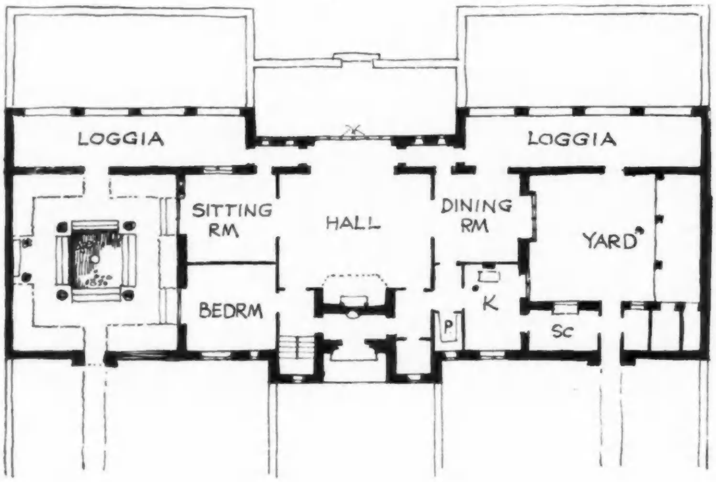
The most perfect turf can be grown under these constricted conditions: actually the conditions are almost ideal. Twelve inches is the maximum depth of soil allowed, or necessary, under the lawns. During the roasting summer

The photograph reproduced on this page shows the water garden, looking towards one of the lift entrances. The following are references to the figures on the plan:—

1. Morello cherry walk
2. Shelter
3. Lift sheaves
4. Seat
5. Flowers
6. Turf
7. Vine walk
8. Water garden
9. Paving
10. Acacia Trees
11. Winter garden
12. Coloured Italian plaque on wall
13. Rose and bulb garden
14. Island of flowers
15. Dovecot
16. Rock gardens
17. Evergreen recesses for tea tables

THE DOMESTIC ARCHITECTURE OF IN PERU





The design of this house was determined entirely by the special conditions of climate and material and in no sense by any desire to adopt modernistic shibboleths; for the architects' client was an enthusiast for good building in all the classic styles.

From HOUSES AND GARDENS.

of 1930, when the turf in the London parks was brown and scorched, the Selfridge lawns were so velvety and brilliant that a special commissionaire was kept busy dissuading the visitors from pulling up little tufts " to see if it really was grass." The excellence of the turf during that period was not necessarily due to better culture but rather to the fact that the areas were under direct control. It was encouraging to find that the extensive watering that was necessary during that period did not appreciably devitalize the soil.

With a view to reducing the cost of maintenance it is desirable to create in the country a nursery. Here not only can the majority of the perennials and biennials be raised, but it can also become a holiday home for tired plants. Lilies, roses, evergreens and others may be brought down from the roof from time to time to regain their vigour. Immense economies result from this kindly treatment. In addition to the nursery, many annuals, cuttings and seedlings can be raised on the roof itself with the help of a thermostat greenhouse and a series of frames. With the exception of evergreens and a few choicer plants for special displays, the bulk of the plants may be raised by these means.

It is difficult to understand why more roof gardens are not made. They are not necessarily expensive to make or maintain, they are thoroughly practical from a horticultural point of view, and they must render untold health and happiness to the millions of city workers whose lot it is to toil apart from the beauties that nature has to offer. In the summer months as many as thirty-five thousand people pass through the gardens on Messrs. Selfridge's roof during one week. No hospital in a great town should be without its garden of flowers and sun shelters—no block of offices, no factory, no school, no modern hotel, no block of flats built in towns should now be considered adequately equipped without this means of peaceful relaxation.

LITERATURE

DOMESTIC ARCHITECTURE

Houses and Gardens. By M. H. Baillie Scott, F.R.I.B.A., M.R.A.C., and A. Edgar Beresford, F.R.I.B.A. London: "Architecture Illustrated." Price 25s. net.

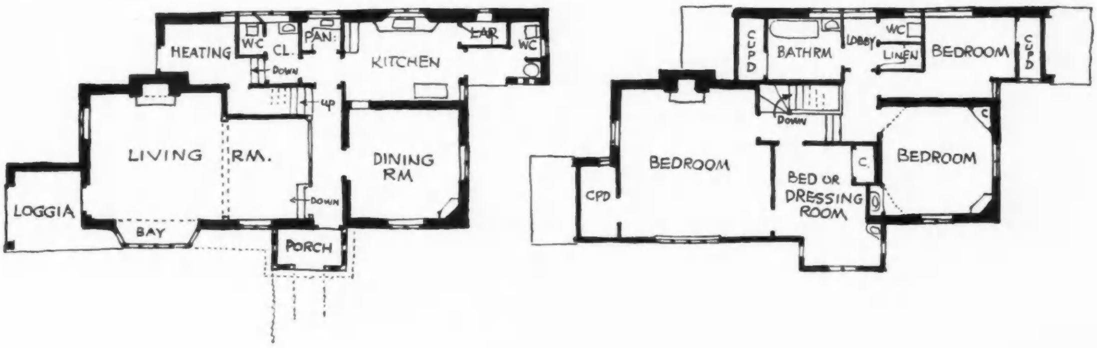
THE domestic house building of Baillie Scott and Beresford must be known and admired by almost every architect in Great Britain, and, indeed, by a large number of people abroad. Within the covers of this volume, which is not far short of the size of *Webster's Dictionary*, and is published at the remarkably cheap price of twenty-five shillings, are illustrations of nearly a hundred domestic buildings—a selection only—erected from the designs of the firm. It is a pity, however, that scales should have been omitted from any of the plans.

The authors, in their foreword, point out that because they have ventured to criticize somewhat severely the average type of modern house building, they are not necessarily assured of the merits of their own work.

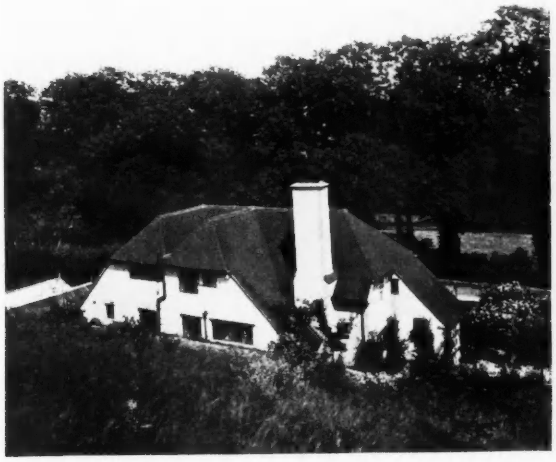
" The modern architect," they contend, " should consider the world of nature with due reverence as a creation essentially divine, a world decorated with miracles of design in trees and flowers."

It is for him to add his contribution to this natural beauty of the world with buildings which are in harmony with it. His highest achievements will not then be the latest mechanical conjunction of glass, steel and concrete, but rather an expression, in terms of human handiwork, of the spirit of the countryside. Instead of that uninspiring and rather tiresome slogan, " Fitness for Purpose," which

BAILLIE SCOTT AND BERESFORD



AT FARNINGHAM, KENT



This modest little house exemplifies the principle of making the building fit its setting rather than designing it as a separate and complete entity and then modifying the site to a suitable form. The architects were first called in to advise their clients if it were economically and practically sound to build at all on this desired site, for they had been assured on all hands that such a steep hillside would entail great extra cost as well as inevitable dampness and other drawbacks compared with the alternative offered, an ordinary uninteresting " building plot " on a flat field. The architects had no hesitation in recommending the hill, and by designing the house with varying floor levels, following to a large extent the natural slopes, they were able to avoid constructional difficulties and serious increase in the cost and to obtain an interesting interior.

any pigsty can fulfil, let him rather inscribe on his banners " England, Home and Beauty." Instead of turning his back on the splendid work of his fathers, let him find his inspiration in the buildings which have given us the precious heritage of rural England. He need not go to Sweden. Let each country preserve its own individuality . . . It is idle to think that the modern ideal of practical scientific efficiency, which rightly dominates the making of machines, can be enough to satisfy us in the creation of homes for human beings. . . . If you wish to realize the prevailing quality of modern building, take a ride on top of a bus in any direction out of London, and try to discover, in all the endless array of houses you may pass, any that are not vulgar or mean. In whatever direction one looks, modern building, almost without exception, is destructive of the natural beauty of the world.

In addition to the various chapters on building, the authors have included a description of each of the houses illustrated. Describing that at Peru, illustrated herewith, they write :

> There is something about the name Peru which inevitably suggests the limerick, and we cannot resist the temptation :
>
> There was a young man of Peru,
> Declared as his personal view,
> If a house may be hatless,
> Depends on the atlas :
> It seems to be right in Peru.
> But this singular man of Peru
> Was not much unlike me and you :
> So his house, although hatless,
> Is also quite ratless,
> And its angles are solid and true.

TOWN AND COUNTRYSIDE

Town and Countryside. By Thomas Sharp. Oxford University Press and Humphrey Milford. Price 15s. net.

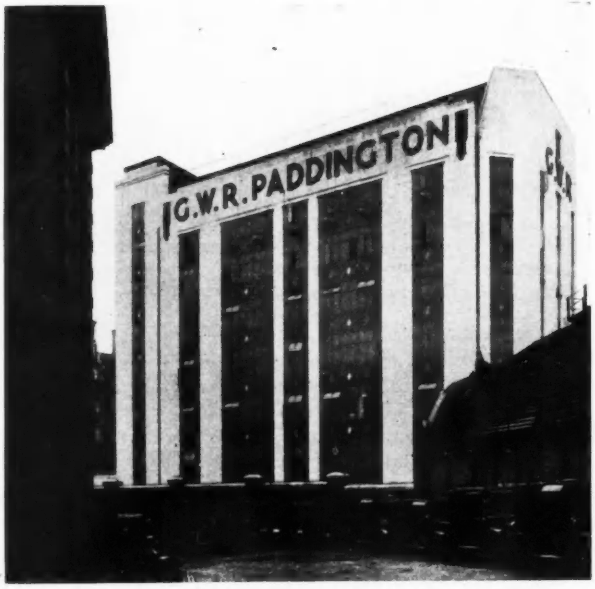
TIME was when architects had to do with town planning, and the time will come again. But it will come with an alteration of our basic outlook upon housing—upon living, nearly ; and this alteration in mental attitude will achieve itself, I believe, in measure as we turn hopefully towards the regeneration of our wasted towns.

Here are the first brave words that have been spoken for urban planning since town planning started. Mr. Sharp has angered the adherents of garden-city planning ; for some reason or other, he has angered even architects, but for all of those who hope to take a hand in replanning the messes the industrial age left behind it this book provides the foundations of a more comprehensive viewpoint than has obtained hitherto.

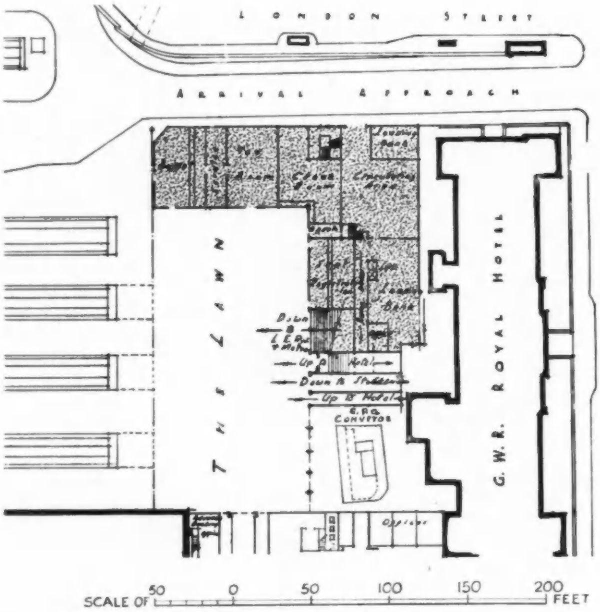
What, in effect, is Mr. Sharp's main argument ? It is that the garden city movement, offering its little garden houses to those who would leave the town, has produced belts of an amorphous development, neither town nor country. That though it left behind it the winding roads of its first flowering, it has perpetuated a small and insignificant house unit which has successfully belittled all attempts at urbanity and fine design. That, even worse, it has forced this disastrous unit into all town-planning legislation, and, linking it with low densities, has spread development over areas that appear to have no limit in the eyes of practising town planners.

" Urban influences neutralize the country. Rural influences neutralize the town. In a few years all will be neutrality," cries Mr. Sharp. " The strong, masculine virility of the town ; the softer beauty, the richness, the

STATION OFFICES



DESIGNED BY P. E. CULVERHOUSE



These new offices for the Great Western Railway Co. are situated on the arrival side of Paddington Station. The platforms run away to the left of the plan, on which the new block is indicated by a shaded tint. The external walls are built of artificial stone, with a brick backing, and the plinth is of granite. The panels between the metal-framed windows on each floor are bronzed and the brackets in ornamental bowls at the top-floor level are designed to take lamps for floodlighting the main façade. This building is illustrated in the current issue of "The Architectural Review," from which the above photograph and plan are reproduced.

fruitfulness of that mother of men, the countryside, will be debased into one sterile, hermaphroditic beastliness . . . the town is town; the country is country; black and white; male and female."

That is his argument; and are there architects to disagree that it forms the basis of any philosophy seeking to make use of the means at our disposal in a modern world?

We architects hope to use our powers of co-ordination and proportioning to rebuild the rotten centres of urban and industrial population. If we have turned away from the garden city movement, to be instructed of Continental planners, it is because we feel that life has gone from a system that was founded upon false premises. Mr. Sharp is the prophet of a revival of urbanism that we wish most devoutly to bring about in our time.

In writing of the countryside, he has gone to essentials to discover for us, in a chapter of enthralling interest, the origins of English countryside character, so that, if preservation means anything to us, we shall know what it is we preserve and how best we may preserve it. These chapters dealing with landscape and village character give the book dignity enough to withstand the drain of his angry outbursts against what he feels to be the futility of present policy, and against the more obvious sores of a too-rapidly-moving civilization.

The book is divided into chapters on countryside and town, with considerably more stress upon the former, and despite his critics, more of construction there also.

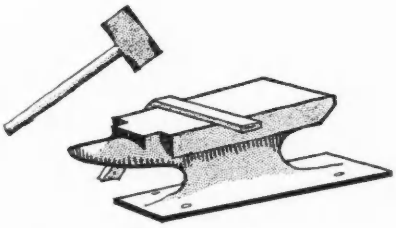
On broad principles, his chapters on the town bring a new and not unconstructive viewpoint to bear on the problem of urbanism as left by the garden city movement rather than as found in the existent centres of populations.

There could be another book added to the second half of *Town and Countryside*, to link Mr. Sharp's arguments with those of the modern movement in architecture, for both lead towards a satisfactory and urbane æsthetic of town planning; the one through the rejuvenation of architectural structure, the other through the destruction of a romantic ideology.

Mr. Sharp has matched his fine prose with good, apt and thoroughly biased photographs, and the Oxford Press have completed a very respectable piece of work. E. M. F.

Hospital Congress

The third international Hospital Congress will be held at Knocke-sur-Mer (Belgium) from June 28 till July 3. From July 4 to 9 there will be a five-days' Study Journey through Holland, which will enable the Congress not only to see the new hospitals, but the classic places, the centres of industry and scenery of Holland. Full particulars are obtainable, free of charge, from Messrs. W. Kohlhammer Verlag, Urbanstrasse 12-16, Stuttgart.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

¶ My main object in these notes is to bring into closer working relationship the architect and the manufacturer, and to discuss products that are new, or little known, or whose portent may not be appreciated by the architect; and to give the information that the architect requires.

The response from manufacturers has been gratifying. I am unable in the space at my disposal to deal with every product of which I have received particulars, and I propose therefore to include in my notes a section for manufacturer's literature.

The architect can assist in making these notes of greater practical value by sending information based on his own experience.

I shall be pleased to answer queries, and I shall welcome suggestions from architects and manufacturers. I shall be grateful to those who send illustrations and specifications of intelligently-produced materials and fittings, and I particularly want to receive details of new standardized building equipment.

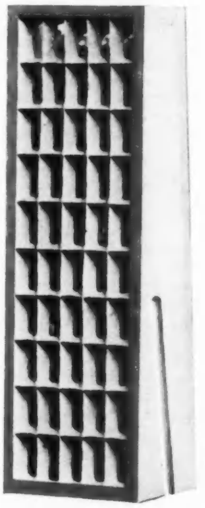
—F. R. S. Y.

I WENT last week to the Ideal Home Exhibition at Olympia, where, as last year, the utilitarian equipment, refrigerators, cookers, water softeners, and so on, provide the relief in a show of over-decorated fireplaces, electric light fittings and furniture.

A new gas heating radiant

I was especially interested in a new gas heating radiant, evolved in the research laboratories of the Gas, Light and Coke Company, and manufactured by Bratt, Colbran for incorporation in the new Portcullis Fire.

In view of the fact that one such radiant is equal, in terms of radiant heat, to one kilowatt of electricity, the radiant is called a "unit," and, as an approximate guide, it should be useful, when selecting a fire, to remember that each unit is equal, in terms of heat output, to one kilowatt electric fire, or 2½ ordinary gas fire radiants.



A new gas heating radiant burning about 8cu. ft. per hr.

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The form of the radiant is unprecedented; a complete departure from the conventional "candle" type. It is constructed with solid back and sides, and has a rigidity and robustness that should permit long life. It is held in position by metal rods that rise from the burner-plate and slide into grooves in its sides. The fire-back is composed of special non-conducting material, and by placing the units close to this back, heat loss is reduced to a minimum. The number of thorns or pips is increased to obtain more efficient "scrubbing" of the flame.

As a result of these improvements a 20 per cent. gain in radiant efficiency, and consequently a 20 per cent. economy, is claimed; and, because a single unit burns no more gas than two incandescent mantles, fumes given off are negligible, and a portable flueless model is sanctioned by the authorities.

Economy in water heating

I was impressed by the Aga water heater, which works in conjunction with the cooker, and, for an extra £1 10s. per annum fuel cost, provides a 20 gallons supply of water, at 200° Fahrenheit morning and evening. This is equivalent to four really hot baths a day, but if hot water for washing-up or other purposes is drawn off, the heating of the water to the maximum temperature will be delayed.

The apparatus consists of a heavily-insulated 20-gallon storage tank, placed above or beside the Aga cooker, and a coil of piping fixed round the barrel of the cooker and connected with a similar coil immersed in the storage tank. These coils constitute a closed circuit within themselves and are filled with distilled water, which eliminates the formation of lime or other deposits. The distilled water in the barrel coil is raised into steam which passes into the upper coil in the storage tank where, in condensing, it gives off its heat to the water surrounding the coil. The distilled water is then returned to the barrel coil for reheating. The system is entirely automatic and contains no moving parts.

Throttling devices prevent the passage of steam through the storage tank coil once the water has reached 200° Fahrenheit. The cold supply to the storage tank can be direct from the mains supply (a great economy) and the hot water can be circulated to any tap in the house.

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The water heater can easily be fitted to cookers already installed. It costs, if ordered with the cooker, £19 10s., exclusive of any plumbing work that may be required.

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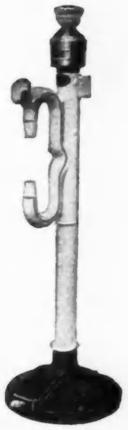
A special feature of the cooker itself is the insulation, which prevents heat loss, and so effects economy in fuel. It is significant that in one of the model kitchens an Aga Cooker and an Electrolux refrigerator are arranged in juxtaposition.

Rubber wall lining

In another kitchen rubber is employed as a wall lining, in place of tiles. The method of fixing is exactly the same as that employed for rubber floors, and I understand that the material can be supplied at 4s. 6d. to 5s. per yard super.

An electric hand drier

Towels usually remain in the lavatories of factories and schools until they are, at least, slightly soiled, and consequently unhygienic, and I naturally conclude laundering costs, and the time spent in



Pedestal type of "Crypto" electric hand and face drier.

collecting and distributing towels, to be quite considerable. It appears, therefore, that a hot-air hand and face drier, costing £22, that dries sixty pairs of hands for the price of one unit of electricity, should, in the long run, prove an economy.

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The "Crypto" hand drier, which is obtainable as a wall or pedestal model, is operated by a foot pedal. Cool air is sucked in at a high level, above the motor, circulated about an electric heating element and delivered at high temperature, under pressure, through two opposing outlets, so that the currents meet at a convenient level. The hands are inserted at this meeting point and wrung continuously until they are dry. The manufacturers say that twenty seconds should suffice to complete this operation, but I believe this to be a slight under-estimation.

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At a higher level is a third aperture, through which hot air is blown towards the face which is dried by rubbing with the hands, with the same motion as that employed in washing. When the foot pedal is released the current is automatically switched off.

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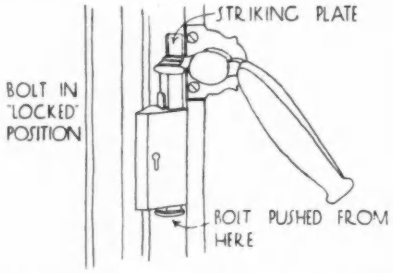
A locking device for windows

On the Crittall stand I saw a new type of window lock, calculated to defeat the would-be intruder, who, by breaking a single pane of glass, can turn the handle and effect an easy entrance.



A new window lock that can be attached to standard metal windows.

The lock is fitted to the ordinary type of window, immediately below the catch, and is pushed upwards into a locked position with the fingers, but can be opened only by a master key.

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Literature received

Open-air Swimming Baths
The British Portland Cement Association
Theatre and Cinema Lighting
Best and Lloyd
The Making of Asbestos-Cement Buildings as seen by W. Heath-Robinson
Asbestos Cement Building Products
The Vogue of the Bidet
Dent and Hellyer

THE SPECIFICATION WRITER

FIRE RISKS AND DESIGN

[*By MAURICE E. WEBB*]

FIRE regulations affect the external design of buildings in many ways, and perhaps the most important is height. Until quite recently our laws in London prescribed a sloping roof with an angle of 75 deg. above the 80 foot limit, but now vertical stories within that angle are not only permitted, but encouraged, except for one stupid rule. The rule is this: that if this construction is adopted the building will be classed as a high one, and adjoining owners and others have to be notified and asked if they wish to object. The height is no greater, and may even be less than the older type, and it is difficult to see the logic or use of such a rule.

Other regulations which affect the external design of buildings are those which limit the window openings to half the area of the wall face. This seems quite unnecessary, and to be a restriction on the liberty of the subject. Another is the casing of all steel with 2 inches of incombustible material, making the designer of a steel building cover it all up with a sham veneer of stone or brick, or forcing the use of reinforced concrete on an unwilling building owner. In this connection, I have found that building in London under L.C.C. regulations costs considerably more than outside their area.

Our present code, as far as London is concerned, is out of date, and takes little, if any, heed of modern building fire-resisting construction; but that we hope the L.C.C. are really seriously trying to remedy now.

Speaking as an architect, I hope that no general increase of height will be permitted. Only two complete streets in London, namely, Regent Street and Kingsway, have hitherto been built up to the present limit, and I believe that the strongest opposition to any big concessions has hitherto come from the London Fire Brigade.

The whole question of increase of heights of buildings is obviously very much wrapped up with fire risks, especially in congested areas of big cities. It is hoped that, if any relaxation is to be permitted in the future, a very careful system of zoning will be adopted, and that any such increase of height should only be permitted in conjunction with proper schemes of street widening, and the use of the most modern type of fire-resisting construction.

Fortunately the London clay will not permit of buildings of gigantic height, but it will permit of buildings very much taller than we have at present. I would remind you that St. Paul's is nearly 400 feet high, and its foundations do not even go down to the London clay. Therefore, there is always a possibility in the future, with land as valuable as it is in London, that a very considerable increase over the present height may be allowed (in fact there are today, as far as I know, no height limits outside London) and in that event the London Fire Brigade will be faced with a different problem in the matter of fire fighting, and the various devices used in America, such as dry mains and pumps, etc., at various points in the building, already used here on a small scale, will have to be resorted to on a big scale to get the water up to the upper stories. This has proved to be possible in America, but they have never, fortunately, had to test it out in the case of a serious fire in their skyscrapers.

The reason is one we ought to note in connection with our modern building regulations, and it is simply this: their buildings are made as fireproof as they can be made, and must be made, before the latitude of great height or great cube is allowed.

Fire rules and regulations have a very intimate connection with the interior planning of buildings. In certain classes of buildings, such as a big store, the Act limits the size of each compartment to 250,000 cubic feet, but under certain conditions this figure can be materially increased.

These compartments may be dealt with, either horizontally or vertically, with openings between each of such compartments, which must be protected by double fire shutters. If the cubic contents are based on vertical divisions, direct access from floor to floor by means of staircases or lifts is a simple matter; but if the division is horizontal, the staircases and lifts must be cut off by means of lobbies, and the openings must be protected by fire doors.

A large number of divisions are involved, and these are not what the modern storekeeper requires. He wants big open uninterrupted floor spaces.

I think most architects will agree that from a fire point of view, as well as every other, these restrictions on cubical contents of a building should be abolished, provided—and this is of vital importance—that the building is made as completely fire-proof as modern building construction will permit, and that it is provided with sprinklers and drenchers throughout; that the staircases are adequate in number and all stairs for escape in case of fire are placed on outside walls with direct access to the street and roof. The entrances to all staircases should be clearly visible to the public for many reasons, the principal ones being that lifts are now largely superseding staircases for public use, and in the case of fire or panic, people invariably try to leave the building by the same means as they came into it. If the electric current fails—as it frequently does—in the case of a fire, the lifts are put out of action, and unless the stairs are clearly visible, a panic may result. For this reason also it is most regrettable that the restrictions on escalators are such that no London Store has, as yet, been able to use them on a big scale.

In dealing with large buildings, I want to stress the importance of sprinklers. As an

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Summarized from the Fothergill Lectures, recently delivered before the Royal Society of Arts. The complete set of three lectures are obtainable from the Secretary, John Street, Adelphi, W.C.2, price 2s. 6d.

architect, I dislike them, because of the multiplicity of pipes they cause throughout the building, and the difficulty of fitting the sprinkler heads into the pattern of ornamental ceilings; but if the authorities in London would give them their due value as fire-stoppers and would relax some of their other regulations in regard to cubical contents, fire walls, etc., in all fire-resisting buildings in which sprinklers are fitted, my dislike would be converted to friendship.

The Insurance Companies give rebates of 50—60 per cent. on sprinklered buildings, but, as far as I know, they give little or no rebates to buildings which merely comply with local authorities' bye-laws.

Many fires in old houses have been caused by faulty flues, and by the addition of a heating apparatus, or by a faulty electric light installation. To anyone who buys a house and instals a central heating apparatus, I would ask that he or she makes perfectly certain that the flue through which the boiler has to function is big enough and is safe. Flues can be tested for fire as drains can be tested for escaping gases.

Owing to the increased use of electricity, many houses are now not only wired for electric light, but for heating and cooking also. There are many different systems of wiring on the market, some of them much cheaper than others. From a fire point of view this is not a service which should be economized upon, and it should only be put into the hands of a really responsible engineer, whom one can trust to see that the system is properly installed and earthed and properly tested and fitted with an adequate system of fuses. In the case of a building where both gas and electricity are used, it is of the greatest importance to see that the gas pipes and electric conduits do not in any way cross or touch each other.

Another fairly frequent cause of fires in houses is the faulty setting of fireplaces, and special attention should be paid where the modern type of slow-combustion grate is fitted. Before fitting the grate, care should be exercised to see that there are no wooden blocks or other timbers in the walls, as often occurs with old houses, and that the hearth is properly set on some incombustible base.

SOCIETIES AND INSTITUTIONS

DEVON AND CORNWALL ARCHITECTURAL SOCIETY

THE annual general meeting of the above Society was held at Exeter on March 25, with Mr. A. H. Ough, F.R.I.B.A. (President), in the chair.

Mr. Ough, in the course of his presidential address, made a proposal for widening the scope of the Building Industries National Council. He said:

A small committee might be formed, in every district where an allied society has a branch or chapter, comprising two or three architects appointed by the society and two or three members of the local Building Employers' Federation, which would meet and discuss local problems and link up with the National Council.

The following officers were elected for the ensuing year:—

President: Mr. B. Priestley Shires, F.R.I.B.A.; *vice-presidents:* Messrs. A. S. Parker, F.R.I.B.A. and W. J. M. Thomasson, A.R.I.B.A.; *Past President:* Mr. A. H. Ough, F.R.I.B.A., M.INST.C.E. *hon. treasurer:* Mr. John Bennett, F.R.I.B.A.; *hon. auditor:* Mr. L. F. Tonar, L.R.I.B.A.; *hon. secretary:* Mr. J. Challice, A.R.I.B.A.

B. Priestley Shires, F.R.I.B.A., who has recently been elected president of the Devon and Cornwall Architectural Society. He also occupied the same position in 1905 and is a member of the Council of the R.I.B.A.

Members of Council: EXETER BRANCH: Messrs. R. M. Challice; E. Kemeys-Jenkin, F.R.I.B.A.; H. Alban Peters, A.R.I.B.A.; J. C. C. Bruce, A.R.I.B.A.; H. M. R. Drury, A.R.I.B.A.; and H. F. Rea, A.R.I.B.A. Associate member: Mr. A. Palfrey, P.A.S.I. PLYMOUTH BRANCH: Messrs. W. A. Vercoe, A.R.I.B.A.; E. G. Catchpole, A.R.I.B.A.; Harold Haughton, L.R.I.B.A.; E. V. Channon: and C. L. Jones, L.R.I.B.A. Associate member: Miss K. I. Maynard.

THE PROCESS OF DEVELOPMENT

Sir Charles Peers, F.R.I.B.A., speaking at the annual dinner of the Berks., Bucks. and Oxon. Architectural Association, held on March 23, said:

Although I have been brought up to revere old work, I feel extraordinarily cheered with what I see going on today. The only mistake is that we are a little inclined to judge every work we see at the present as if it was completed, finished and fully developed. It is nothing of the sort, it is something in the process of development. The newest work we do today is in a somewhat archaic state. One thing leads to another, and the only thing that matters is that you should do what you believe best in your own time.

Mr. T. Lawrence Dale, F.R.I.B.A., presided, and other speakers included Sir Raymond Unwin, P.R.I.B.A., Mr. Eric Gill, Dr. L. H. West and Dr. H. E. Craster.

BERKS. SOCIETY OF ARCHITECTS

At the annual meeting of the Berkshire Society of Architects, held at Reading, the following officers were elected:

Chairman: Mr. E. Steward Smith, A.R.I.B.A.; vice-chairman, Mr. A. Saxon Snell, F.R.I.B.A.; hon. librarian, Mr. H. Whiteman Rising, F.R.I.B.A.; hon. treasurer, Mr. W. R. Morris, F.R.I.B.A.; hon. secretary, Mr. A. B. West. Members of the Executive Committee: Messrs. T. T. Cumming, F.R.I.B.A., W. R. Howell, F.R.I.B.A, J. E. Robson, W. J. Freeman, A.R.I.B.A., A. S. Miller, A.R.I.B.A., and C. B. Willcocks, F.R.I.B.A. Representatives on the Berks., Bucks. and Oxon. Architectural Association Council: Messrs. E. Steward Smith, A. Saxon Snell, W. R. Morris, J. T. Saunders, F. Woods, H. M. Lewis, F. E. Wapshott, A. B. West and S. E. Burrett.

FLOODLIGHTING

THE LIGHTING OF CINEMAS AND THEATRES. By R. Waldo Maitland, A.R.I.B.A. At the Lighting Service Bureau, London, March 29.

The general practice when flooding the front of a cinema or theatre is to use the canopy to house the floodlights but, owing to the L.C.C. regulations in limiting both the depth and projection of the canopy, one invariably sees floodlights projecting above the canopy top. This entirely destroys the illusion of the effect produced on the building face.

To place a shield in front of the floodlights might seriously affect the cross section of the canopy, and I would suggest either a limitation of the area to be lighted should be considered, to enable the use of smaller equipment or the concealment of the floodlights in the itself at various levels.

The application of luminous boxes or troughs has been extensively employed in Germany. In this country little of this application has yet been employed, but something of a similar nature is used in the form of box signs and open letter signs, as illustrated in the new Gaumont Palace, Lewisham.

STIRLING SOCIETY OF ARCHITECTS

At the first meeting of the Stirling Society of Architects (a Chapter of the Royal Incorporation of Architects in Scotland), held on March 20, the following office-bearers were elected:

President, Mr. Eric S. Bell; vice-president, Mr. A. M. McMichael; Council: Messrs. Leonard C. Blakey, Robert Wilson, Alexander Black, John Gray and Henry Wilson. Representative to the Council of the Royal Incorporation: Mr. Alexander Black. Secretaries and treasurers: Messrs. Hill & Whyte, solicitors. Auditor: Mr. Joseph Dickson, C.A.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Spoliation of Westminster

QUESTIONS were put in the House of Commons last week with regard to the alleged threat to the Palace of Westminster and Westminster Abbey.

Sir William Davison asked the First Commissioner of Works what action the Government were taking, in connection with the London County Council or otherwise, to protect the amenities of the Palace of Westminster and Westminster Abbey against the erection of excessively tall buildings in their immediate vicinity?

Sir Assheton Pownall also asked the First Commissioner of Works whether his attention had been called to the Report of the town planning committee of the London County Council dealing with the danger to the amenities of Parliament Square of certain projected new buildings; and what action he intended to take?

Mr. W. Ormsby Gore said that his attention had been drawn to the recent action of the L.C.C. in passing a resolution authorizing the preparation of a town planning scheme for an area in the City of Westminster, including Parliament Square, Old Palace Yard and Abingdon Street. He understood that this action had arisen out of proposals for the erection of office buildings on sites in Abingdon Street and Great George Street. Under the terms of the Town and Country Planning Act, 1932, any such scheme must be submitted to the Minister of Health, who would take into consideration any representations received from the Commissioners of Works with regard to the proposal.

So far as the Abingdon Street proposal was concerned, the First Commissioner of Works already possessed statutory powers giving him a very considerable measure of control over the elevation and height of any buildings to be erected on that site. He was not aware, however, whether any detailed plans and elevations had yet been prepared, and he was therefore not yet in a position to express any opinion on the proposals. As regarded the Great George Street proposal, the Commissioners of Works had no control except in such matters as rights of light and easements as arise out of the ownership of the land in Parliament Square immediately adjacent to the site in question.

Sir W. Davison: "Then I understand that no application had been made to the Office of Works. Will the right hon. gentleman say, when he said that under the terms of the Act the Minister of Health had certain powers, to what Act he referred?"

Mr. Ormsby-Gore: "I referred to the Town and Country Planning Act of last year. The first step to be taken by any private owners, in connection with rebuilding on these sites, is to go to the County Council: the scheme then goes through them to the Minister of Health, who, before he gives his decision, consults my department."

Sir A. Pownall asked if the First Commissioner could give an assurance that every possible step would be taken to see that there was no repetition of what had happened in Carlton House Terrace?

Lieut.-Comdr. Agnew asked if the First Commissioner had any control over the architectural style of any new buildings erected on the Abingdon Street site?

Mr. Ormsby-Gore: "No. I do not think I have any control over the actual style, but on the general character of the elevation in relation to surrounding buildings; I cannot prohibit all building there altogether."

Mr. Maxton asked if the Great George Street land was not in the ownership of the Ecclesiastical Commissioners, and that being so, had the right hon. gentleman no control over the operations of the Commissioners?

Mr. Ormsby-Gore: "No. I understand that the bulk, but not all, of the Abingdon Street site is in the ultimate ownership of the Ecclesiastical Commissioners. One owner owns three houses privately. The Great George Street site is, I believe, private freehold."

Rent Restrictions Bill

The Committee stage of the Rent and Mortgage Interest Restrictions (Amendment) Bill was begun in the Commons last week. An amendment, moved on behalf of the Government, to provide that the Bill should come into operation on September 29, 1933, was agreed to. It was stated that the measure would come into operation in Scotland on November 28, 1933.

Mr. Greenwood moved an amendment with the object of ensuring that the Rent Restriction Acts, instead of coming to an end in 1938, should continue in force "until Parliament otherwise determined." He said that it was a gamble to suppose that in five years private enterprise would provide sufficient small houses for the working classes to meet the demand.

Sir Hilton Young, the Minister of Health, said there was no reason to suppose that after five years the supply would not equal the demand. Five years would allow free play for the working of those forces which the Government had called into active operation.

The amendment was negatived by 301 votes to 68.

LAW REPORT

LIGHT AND AIR CASE

Smith v. Evangelization Soc. Incorporated Trust and Another.—Court of Appeal. Before the Master of the Rolls and Lords Justices Romer and Lawrence

THIS was an appeal by Mrs. Eliza Smith, the owner of No. 8 Mint Walk, Croydon, from a decision of Mr. Justice Maugham, sitting in the Chancery Division, dismissing her action asking for a declaration that the defendant Society and Mr. Denyer, as the owners and superintendent of the adjoining Mission Hall, were not entitled to erect a corrugated iron screen so as to obstruct light and air to her first floor window on the east.

The defendants contended that so much light came to the room through another window that the Court could not say Mrs. Smith's ancient light had been interfered with, and that she had deprived herself of light by blocking up existing skylights in the roof of the room.

Mr. Justice Maugham held that the removal of the skylights was a factor which had to be taken into consideration. Having regard to this circumstance he could not hold that the room was uncomfortable for the ordinary purposes of mankind, it being a small room with a good window light from the west.

Mr. Morton, K.C., for the appellant, submitted that Mr. Justice Maugham ought not to have taken into consideration the skylights at all. They had existed for only 18 years and had ceased to exist before the east window acquired any right to light at all. The Judge was wrong in holding that there was no infringement of the plaintiff's legal rights. The question was whether obstruction was a nuisance and there could be only one answer, because it was a complete obstruction. Even if the skylights had, as the Judge held, to be taken into consideration, it would still be a nuisance to block out the light from the east window. His contention was that the skylights ought not to be taken into consideration at all.

Mr. Gover, K.C., appeared for the respondents.

The Master of the Rolls, in giving judgment, said this appeal raised a point on which it appeared there was no direct authority. Here the Court had to consider what was the effect of the alterations made by the plaintiff in 1924, when the skylights were removed and the east window was enlarged. Owing to the existence of the skylights, starting from 1913, when the period of prescription began, the light from the east window was relatively unimportant. It seemed that consideration must be given o the condition of the premises at the commencement of the period of prescription, because one had to consider what was the access, and what was the use of the light which had been actually enjoyed for the full period of 20 years. It was laid down in the Colls case in the House of Lords that one must consider the surrounding circumstances of light coming from all sources. To his lordship it appeared that Mr. Justice Maugham had followed the reasoning and principles laid down in the House of Lords in that case. In his opinion Mr. Justice Maugham had properly directed himself in accordance with the principles in that case and therefore the appeal would have to be dismissed with costs.

Lords Justices Romer and Lawrence concurred.

THE BUILDINGS ILLUSTRATED

Following are names of the specialists, general contractors, and some of the sub-contractors for the buildings illustrated in this issue:

St. Anselm's Catholic School, Harrow (pages 457-459 and supplement). General contractors, E. H. Burgess, Ltd. Sub-contractors: Self-Sentering Expanded Metal Co., Ltd., reinforced concrete floors, roofs, staircases, etc.; Cook & Co., Ltd., steelwork; Xelite Plaster Co., Ltd., snowcrete rendering and internal plastering; Excel Asphalt Co., Ltd., asphalt; Kingsmill Metal Co., wrought-iron balconies, handrails, etc.; James Gibbons, Ltd., cloak-room fittings, locks and door furniture; H. Pontifex and Son, Ltd., sanitary fittings; G. N. Haden and Sons, Ltd., hot-water system, electric lighting and wireless installation; W. James & Co., Ltd., steel casements and doors.

Extension to the National Portrait Gallery (page 460). General contractors, Leslie & Co., Ltd. Sub-contractors: Edward Wood & Co., Ltd., steelwork; Highways Construction Co. (incorporating French Asphalte Co., Ltd.), asphalt; Harland and Wolff, Ltd., lighting mains; Crittall Manufacturing Co., Ltd., steel sashes; J. Whitehead and Son, Ltd., marble; J. Healey, Ltd., pavement lights; Hill and Smith, Ltd., balustrades and railings; J. and C. Bates, Ltd., fireproof doors; Special: The Kingsmill Metal Co., Ltd., bronze work and window grilles; J. F. Ebner, Ltd., wood block flooring; Diespeker and Co., Ltd., terrazzo paving; Turner, Lord & Co., decorative work; Hampton and Sons, Ltd., handrail; Richard Crittall & Co., Ltd., heating installation.

Conversion of factory for Molin Machines Co., Ltd., Deptford (pages 466-467). General contractors, T. H. Sawyer and Son, Ltd. Sub-contractors: J. E. Pearson (Birmingham), Ltd., metalwork of fence; Henfrey Electrical Co., electrical fittings; Troughton and Young, Ltd., special lighting fixtures in entrance hall; J. and E. Hall, Ltd., lifts and lift cars; Synchronome Co., Ltd., electric clocks; Korkoid Decorative Floors, floor covering; Cement Marketing Co., Ltd., Snowcrete—in three colours.

Other Trade Items

Messrs. W. T. Henley's Telegraph Works Company, Ltd., have appointed Mr. W. Reay, who has been attached to their Contract Office at Lisburn since 1928, as Belfast Branch Manager in succession to the late Mr. C. Magee.

*

Messrs. Commercial Structures, Ltd., have recently secured the contract to erect a modern single-floor factory on the Langhedge Factory Estate at Edmonton, for a boot and shoe company.

*

We regret to record the death of Lt.-Col. F. A. Woodcock, D.S.O., the managing director of Messrs. Diespeker and Co., Ltd.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the EALING Corporation: Eight houses, Tavistock Avenue, for Mr. E. B. Burge; four houses, Midhurst Road, and seven in Ellesmere Gardens, for Mr. E. Read; six houses, Clauson Avenue, two blocks of flats and 16 houses, Twyford Avenue, and six houses, Rydal Crescent, for Messrs. B. Smith and Sons (Builders), Ltd., of Northolt; 24 flats, Gunnersbury Avenue, for Mr. G. P. Bath; nine houses, Tavistock Avenue, for Messrs. A. Watson, Ltd.; 22 houses, Rydal Crescent, for Messrs. R. Lancaster and Sons; two houses, Downing Drive, for Mr. W. Stokes; hotel, Greenford Road, for Messrs. Clemence & Co.; alterations and additions, King Edward Memorial Hospital, Mattock Lane, for Messrs. Hall-Jones and Partners; warehouse, rear 11 Boston Road, for Messrs. Bostock and Hollins; alterations and additions, 44-5 Broadway, for Lloyds Bank, Ltd.; factory, Wadsworth Road, for Messrs. Perdy, Bilton, Ltd.; nine shops, Ruislip Road, for Mr. W. Hunt; rebuilding 30 Broadway for Mr. H. Braddock. The following estate plans have been passed: Park Royal Estate, for Messrs. P. H. Edwards, Ltd.; Greenford estate, for Ecclesiastical Commissioners; Perivale estate, for Mr. J. M. Wilson.

The L.C.C. is to clear the Northwold Road area, HACKNEY, and build blocks of tenements at a cost of £52,000.

The L.C.C. has now made arrangements to commence the scheme for the erection of a post graduate hospital and medical school, in conjunction with the HAMMERSMITH hospital, at a cost of £172,500.

Plans passed by the HAMPTON U.D.C.: 32 houses, Park Road, Lindsay Road, for Messrs. Thorogood Bros. and Son; garage and sawmills, High Street, for Mr. R. A. C. Churchward, on behalf of the Hampton Timber Co.; stores and workshop, Oldfield Road, for Messrs. Hall and Hall; two houses, Varna Road, for Mr. C. H. Isaacs.

Plans submitted to the ILFORD Corporation: Holland Bros, 14 shops and dwellings, Eastern Avenue; G. F. Siegerts, roads and sewers, New North Road, Lancelot Road, Kelsie Way, Castellan Avenue, Inverness Drive, and Walden Way; P. E. Brand, Ltd., three shops and dwellings, Highview Parade, Redbridge Lane; A. W. Heppell, 13 shops and dwellings, Chadwell Heath Lane.

SOUTHERN COUNTIES

Plans passed at HASTINGS: Alterations, 31 London Road, St. Leonards, for Messrs. J. H. Dewhurst, Ltd.; alterations, 123 and 124 Queen's Road, for Mr. H. W. Coussens; additions, Medlow Hotel, Eversfield Place, St. Leonards, for Messrs. Jeffery and Bowcock; conversion into flats, 85, Pevensey Road, St. Leonards, for Mr. H. H. Ford; additions and alterations, 30 Beaufort Road, St. Leonards, for Mr. A. J. Pitcher; shop, Sedlescombe Road, St. Leonards, for Mr. D. Newton Padgham: addition to shop, 30 Norman Road, St. Leonards, for Messrs. Oxley and Burleigh; additions, Cavendish Place School, for Mr. F. Gordon Watford; addition to Rocklands School, East Hill, for Major A. H. Whittaker-Swinton; dairy, Middle Road, Ore, for Mr. J. Hint; shop, Castle Hill Road, for Mr. G. F. Miller; three houses, Blacklands Drive, for Mr. G. F. Miller; two houses, Brittany Road, St. Leonards, for Mr. J. B. Mendham.

Plans passed by the HERNE BAY U.D.C.: Two houses, Gordon Road, for Mr. G S. Joiner; three houses, Spencer Road, for Mr. R. Messenger; Congregational schools, Mortimer Street, for Mr. R. Messenger; alterations, Connaught Hotel, for Messrs. Foster and Barber; five houses, Cobblers Bridge Road, for Messrs. Goodwin and Russell, Ltd.; two houses, Gordon Road, for Mr. H. Pettman.

Plans passed by the LITTLEHAMPTON U.D.C.: Three bungalows, off Gladonian Road, for Mr. G. J. Gladden; two houses, Worthing Road, for Messrs. W. Charman and Son; garages, Beach Hotel, for Messrs. Ware & Co.; buildings (temporary), Windmill Park, for Mr. W. E. Butlin.

The WORTHING Corporation Housing Committee has approved a sketch plan for the construction of a road entering Church Walk, and the erection of 39 houses.

MIDLAND COUNTIES

Plans passed at DUDLEY: Six houses, Forest Road, for Mr. T. D. Edwards; two houses, Dudley Wood, Cradley Heath, for Mr. T. Hackeson; two houses, Dudley Wood Road, for Mr. J. A. Smith; two houses, Dudley Wood Road, Netherton, for Mr. T. L. Tibbetts; three houses, Stourbridge Road, Holly Hall, for Messrs. Lloyd Bros.; four houses, Dudley-Sedgley By-pass Road, for Messrs. A. J. Crump and Sons; two houses, Bunns Lane Fields, for Mr. D. Webb; two houses, Dudley Wood, for Mr. J. A. Smith; two houses, Priory Estate, for Mr. S. Brookes; two houses, Priory Estate, for Mr. H. Clarke; six houses, Priory Estate, for Mr. W. Whittingham; two houses, Dudley Wood Road, for Mr. A. Auden; shop, Stourbridge Road, Holly Hall, for Dudley Co-operative Society, Ltd.

Plans passed at ILKESTON: Two houses, Blackhills Drive, for Messrs. Wheatley and Bladen; two houses, Ash Street, for Mr. W. Henshaw; two houses, Church Street, for Messrs. J. W. Stapleton and Sons; three houses, off Pimlico Lane, for Mr. H. Sewell; two houses, Doris Road, for Mr. T. Reeve; two houses, Manners Road, for Mr. W. H. Dawson; conversion of two shops, Heanor Road, and Church Street, for Mrs. A. E. Shorthose.

NORTHERN COUNTIES

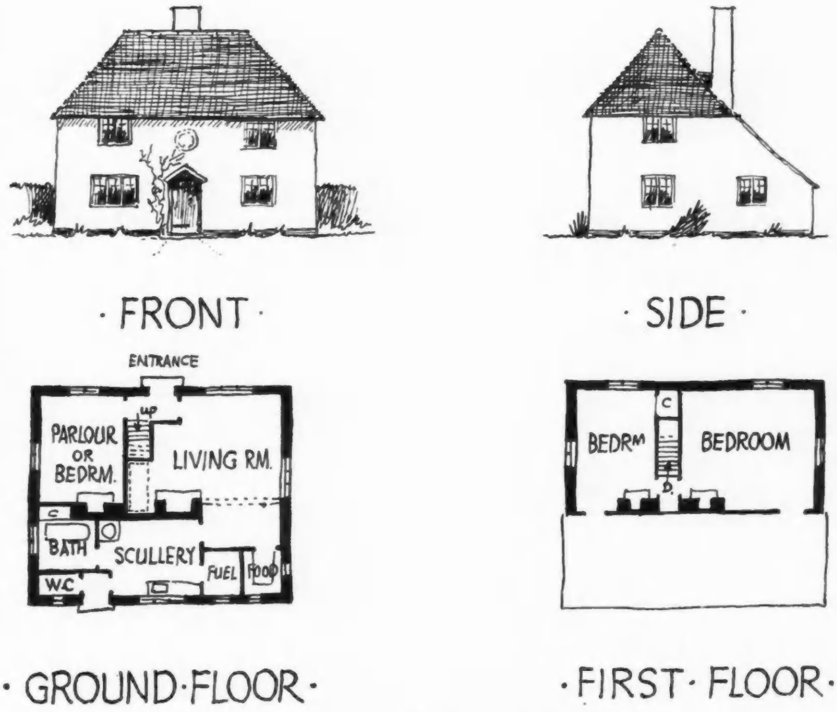
Mr. E. Brooksbank is to erect 114 houses in Tong Street, BRADFORD.

Plans passed by the CARLISLE Corporation: Offices, etc., Dalston Road sidings, for Shell-Mex, Ltd.; two houses, Scotland Road, for Messrs. A. Blakeley and Sons; two houses, Belah Crescent, for Mr. W. C. Johnstone; shop and stores, Shaddongate, for Linton's Cumberland Homespuns, Ltd.; assembly hall, Blackwell Road, for Mr. F. A. Coyle, on behalf of Rev. Father Haeker; four houses, Upperby Road, for Messrs. Benwell and Slack.

Plans passed by the CHESTER Corporation: 10 houses, Christleton Road, for Mr. A. H. Moorcroft; four houses, Christleton Road, for Messrs. G. Austin and Sons; six houses, Mill Lane, Upton, for Mr. T. Squires; 18 houses, Whitchurch Road, for Mr. R. B. Keane; alterations, "Royal Oak" public-house, Foregate Street, for Messrs. Bass & Co., Ltd.; alterations, 22-4 Eastgate Street, and 24-8 Eastgate Row, for Messrs. Boots (Western), Ltd.; alterations, 126 Northgate, for Mr. K. Hardie.

Plans passed by the CHESTER Corporation: Two houses, Liverpool Road, Upton, for Mr. G. Morgan; seven bungalows, Mannings Lane, Hoole village, for Messrs. F. Nile and Son; alterations, 3 Eastgate Street, for Meadow Dairy Co., Ltd.; mineral water factory, Queens Park Road, for Messrs. Thomas and Evans; alterations, Aikman's Gardens Hotel, The Groves, for Chester Boat Co., Ltd.

The HULL Education Committee has approved the erection of the senior departments of Eastfield Road School and Maybury Road School at estimated costs of £16,350, and £20,321 respectively.



Greenaway Cottage, near Windsor. Designed by M. H. Baillie Scott and A. Edgar Beresford and reproduced from their book, HOUSES AND GARDENS, *reviewed on pages 470-471. The authors state: "Let no one suppose that because a cottage must be cheap and small it is necessarily an inferior kind of dwelling, which can give little scope for the artist in building. On the contrary, there is a quality about the cottage when rightly built which seems of deeper significance than can be conveyed by larger dwellings." The cost of the above cottage would nowadays be about £300-£350.*

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	Banbury	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	Cambridge	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A	Cumberland	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	Halifax	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_3	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	Jarrow	N.E. Coast	1 5½	1 1¼
A	Keighley	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	Lancaster	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	Nantwich	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	Oakham	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	Paisley	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	St. Albans	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	Tamworth	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.:Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	Yarmouth	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2½
General Labourer	,,		1	2½
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

Best Stoneware Drain Pipes and Fittings

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
Iron Drains:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ⅞"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
Tubes.			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
Fittings.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
,, ,, 26 oz. ,, ,, ,,	,,					3⅜
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay . . . add	,,		3	0
If in underpinning . . . ,,	,,		5	0
Digging, return, fill and ram . . . ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
½" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1½" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	0	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

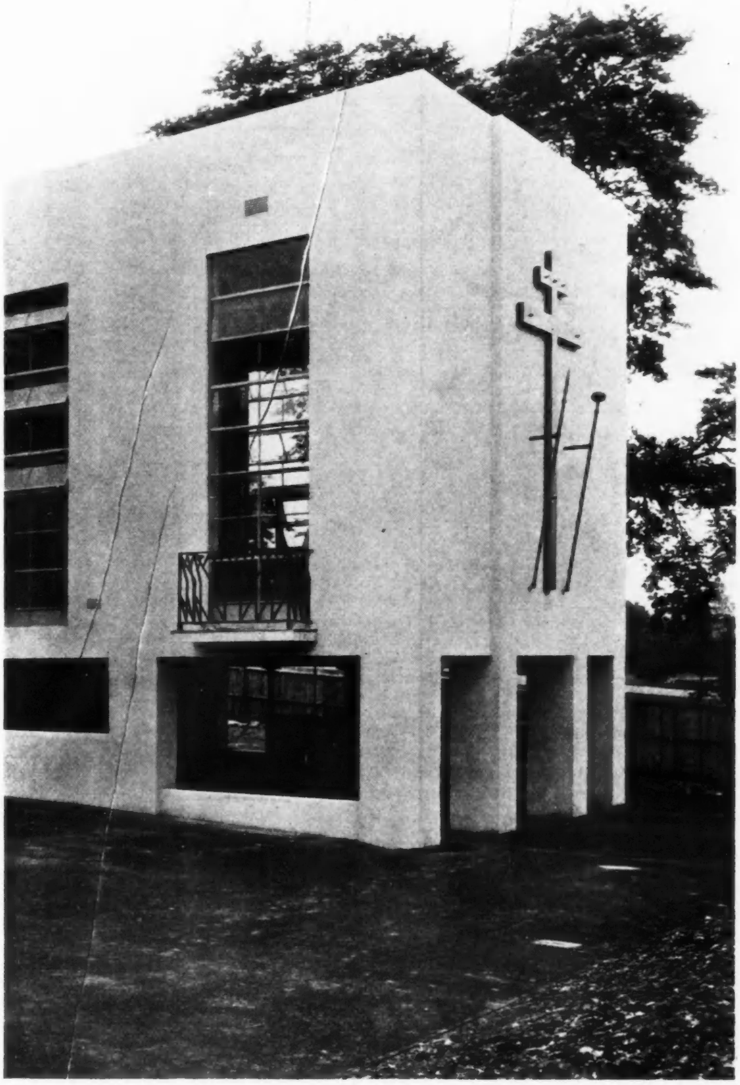
GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7¼
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

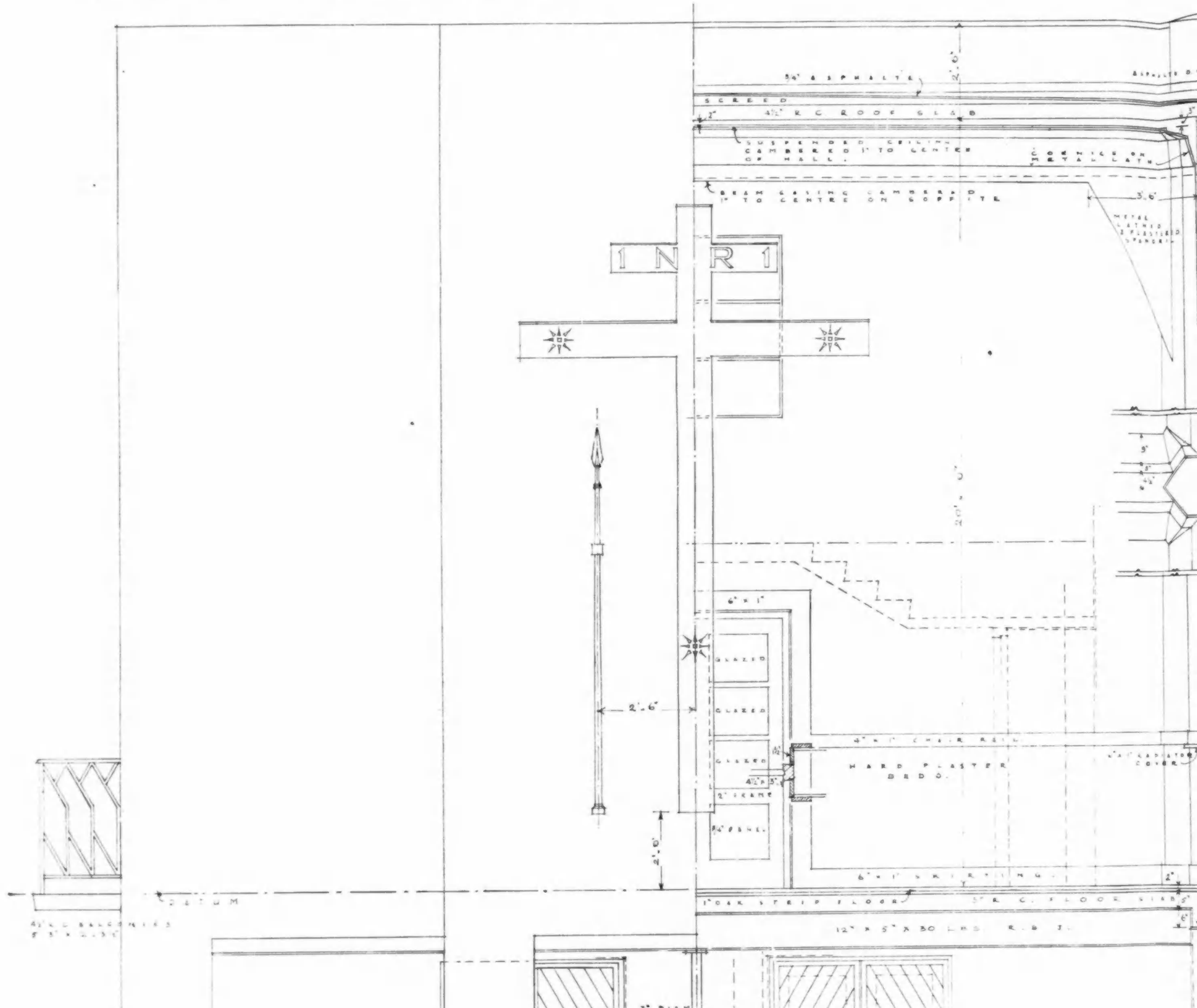
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	:
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	,,	2	9

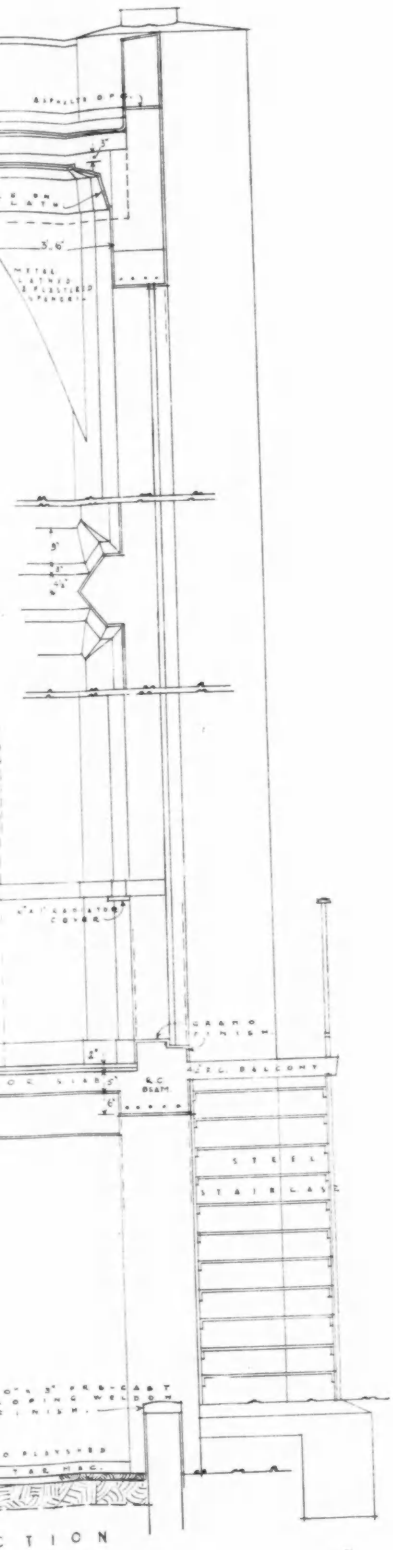
SAINT ANSELM'S
R. C. SCHOOL, HARROW
DESIGNED BY ALLAN D. REID



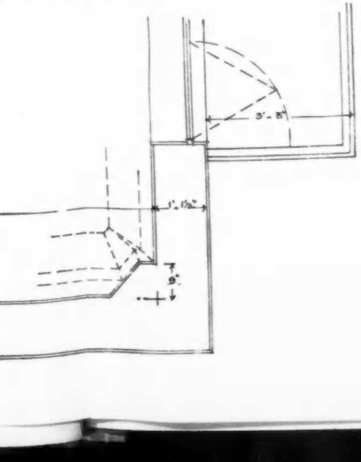
THE END OF THE ASSEMBLY HALL

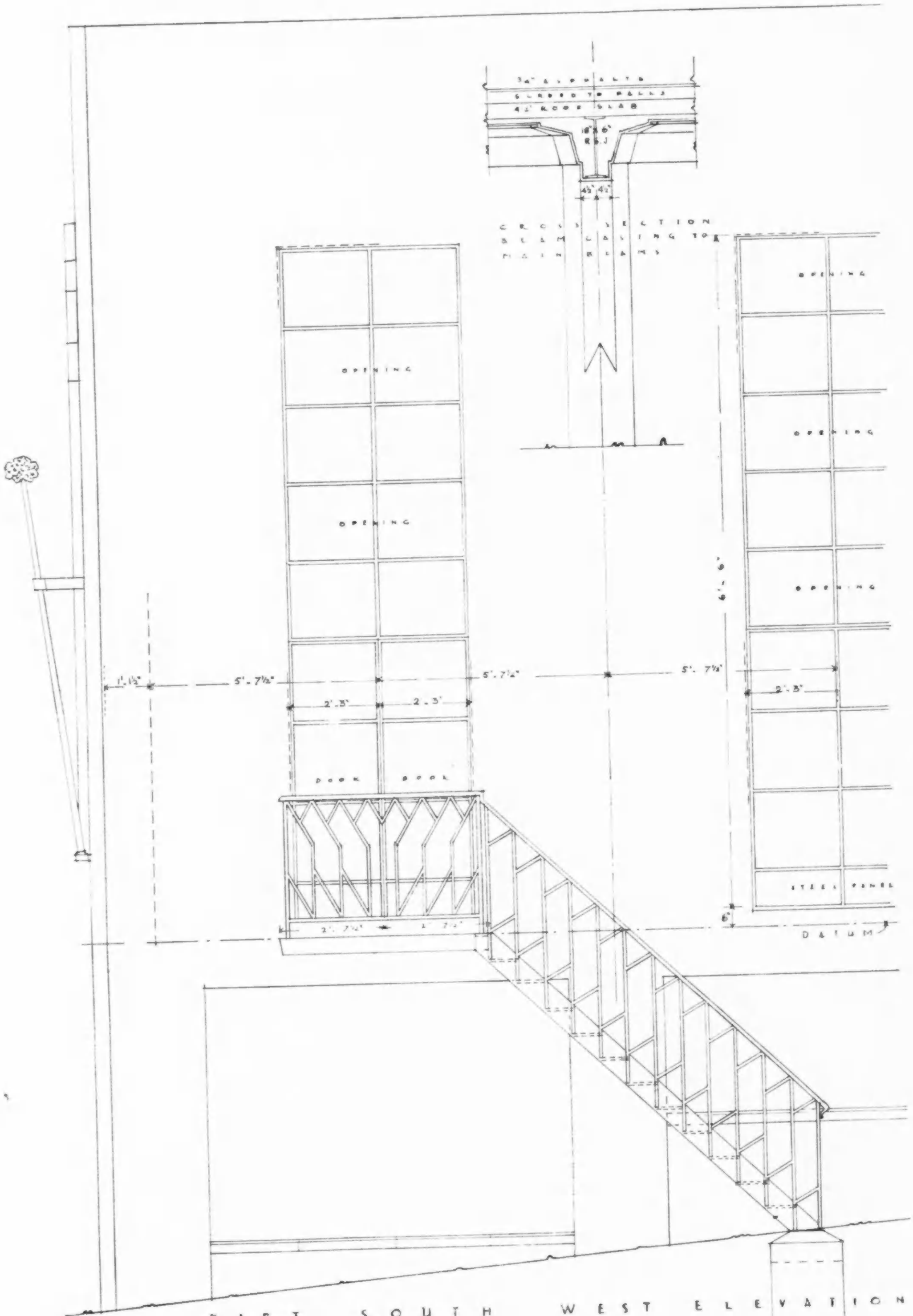
THE large-scale drawing in this supplement is devoted to details of the assembly hall, including a deep window and external emergency staircase which occur on the further side of the hall from that in the photograph above, which shows a similar window and balcony. The school, of which other illustrations, plans and a description are given on pages 457-9 of this issue, is planned as an L, the assembly hall occupying most of one wing, and extending its full height except for a basement forming a small covered playground, with store accommodation and boiler house behind. The assembly hall is floored with oak, so as to be suited for dancing when required, and has a footlit stage.


¾" ASPHALTE
2'-0"
SCREED
4½" R C ROOF SLAB
2"
SUSPENDED CEILING CAMBERED 1" TO CENTER OF HALL.
CORNICE ON METAL LATH
BEAM CASING CAMBERED 1" TO CENTRE ON SOFFITE
3'-6"
METAL LATHED & PLASTERED SPANDRIL
1 N R 1
6" x 1"
GLAZED
GLAZED
GLAZED
4½" x 3"
2" FRAME
¾" PANEL
2'-6"
2'-0"
4" x 1" CHAIR RAIL
HARD PLASTER BEDG.
6" x 1" RADIATOR COVER
6" x 1" SKIRTING
2"
DATUM
1" OAK STRIP FLOOR
5" R. C. FLOOR SLAB
5"
6"
12" x 5" x 30 LBS. R.S.J.
3" DIAM STEEL COL.
4½" x 3"
1" BDG.
3" FALL TO PLATSHED
2" T & G HDG.
6" HARD CORE
PART NORTH WEST ELEVATION
PART CROSS SECTION
1 0 1 2 3 4 5 10 15
13'-9"
4½"
1'-1½"


ASPHALTE D.P.C.
3"
E ON
LATH
3'. 6"
METAL
LATHED
& PLASTERED
SPANDRIL
5"
3"
4½"
4"x1" RADIATOR
COVER
GRANO
FINISH
2"
OR SLABS 5"
R.C.
BEAM
6"
4½" R.C. BALCONY
STEEL
STAIRCASE
0" x 3" PRE-CAST
OPING WELDON
FINISH.
O PLAYSHED
TAR MAC.

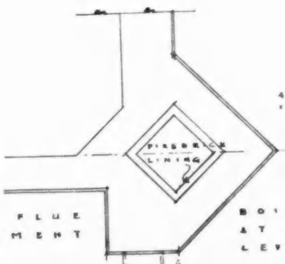
CTION



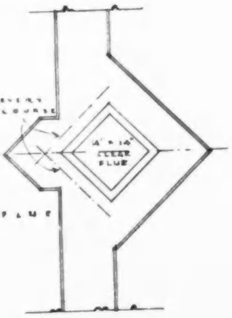

¾" ASPHALTE
SCREED TO FALLS
4½" ROOF SLAB
18" x 6"
R.S.J
4½" 4½"
OPENING
OPENING
OPENING
OPENING
OPENING
1'. 1½"
5'. 7½"
5'. 7½"
5'. 7½"
2'. 3"
2'. 3"
2'. 3"
DOOR
DOOR
2'. 7½"
2'. 7½"
STEEL PANEL
6"
DATUM

CROSS SECTION BEAM CASING TO MAIN BEAMS

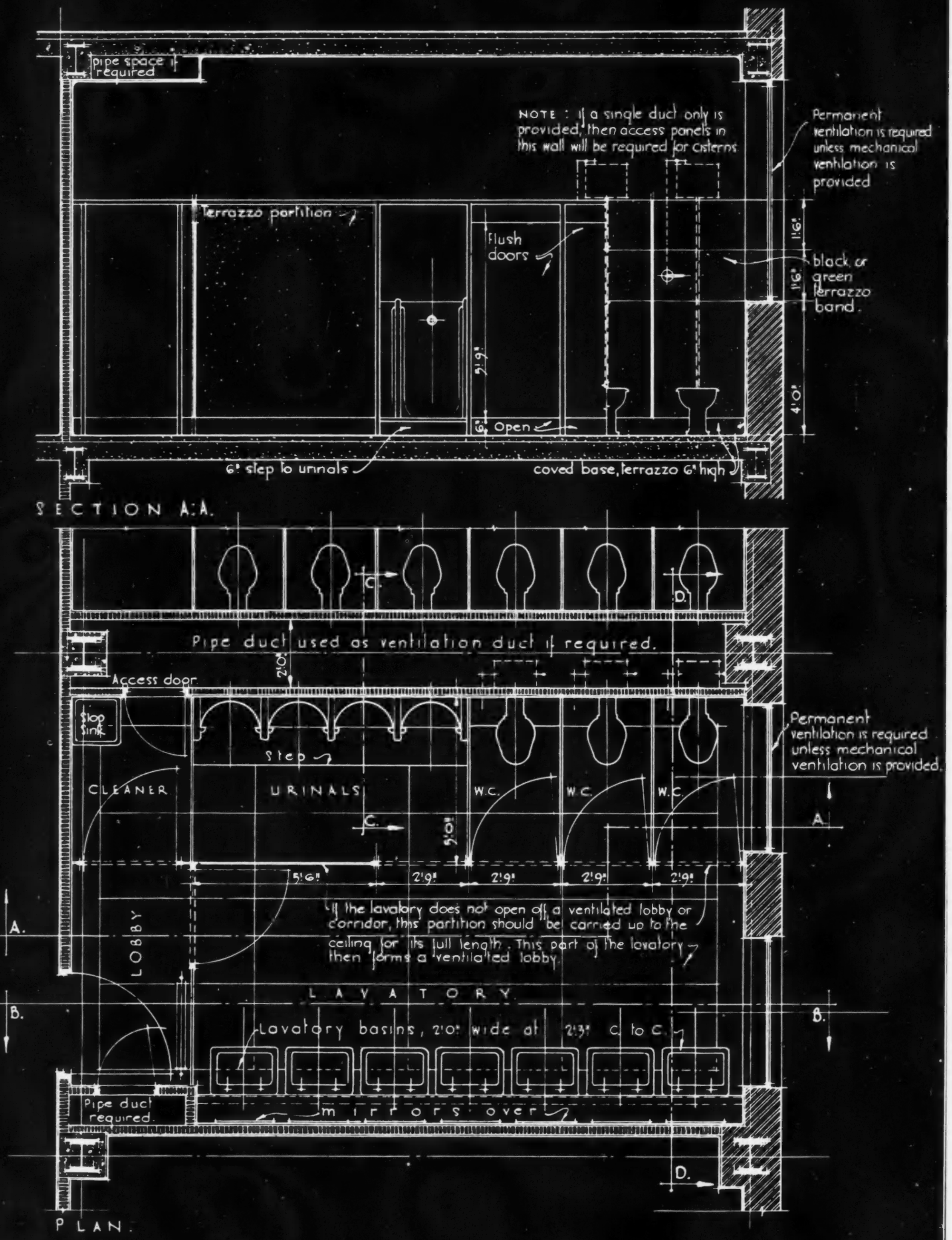
FART SOUTH WEST ELEVATION


FIREBRICK
LINING

BOILER FLUE AT BASEMENT LEVEL.


4½" "EXMET" EVERY
FOURTH COURSE
14" x 14"
CLEAR
FLUE

BOILER FLUE AT HALL LEVEL.


pipe space if required
NOTE : if a single duct only is provided, then access panels in this wall will be required for cisterns
Permanent ventilation is required unless mechanical ventilation is provided
Terrazzo partition
Flush doors
black or green terrazzo band.
1'6"
1'6"
5'9"
4'0"
6"
Open
6" step to urinals
coved base, terrazzo 6" high
SECTION A:A.
C.
D.
Pipe duct used as ventilation duct if required.
2'0"
Access door.
Slop Sink
Step
CLEANER
URINALS
W.C.
W.C.
W.C.
Permanent ventilation is required unless mechanical ventilation is provided.
A.
C.
5'0"
5'6"
2'9"
2'9"
2'9"
2'9"
If the lavatory does not open off a ventilated lobby or corridor, this partition should be carried up to the ceiling for its full length. This part of the lavatory then forms a ventilated lobby.
A.
LOBBY
LAVATORY
B.
B.
Lavatory basins, 2'0" wide at 2'3" C to C.
Pipe duct required.
mirrors over
D.
PLAN.

DETAILS OF STANDARD TYPE LAVATORIES.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS • 12 • LAVATORY UNITS

INFORMATION SHEETS

• 12 •

LAVATORY UNITS

•

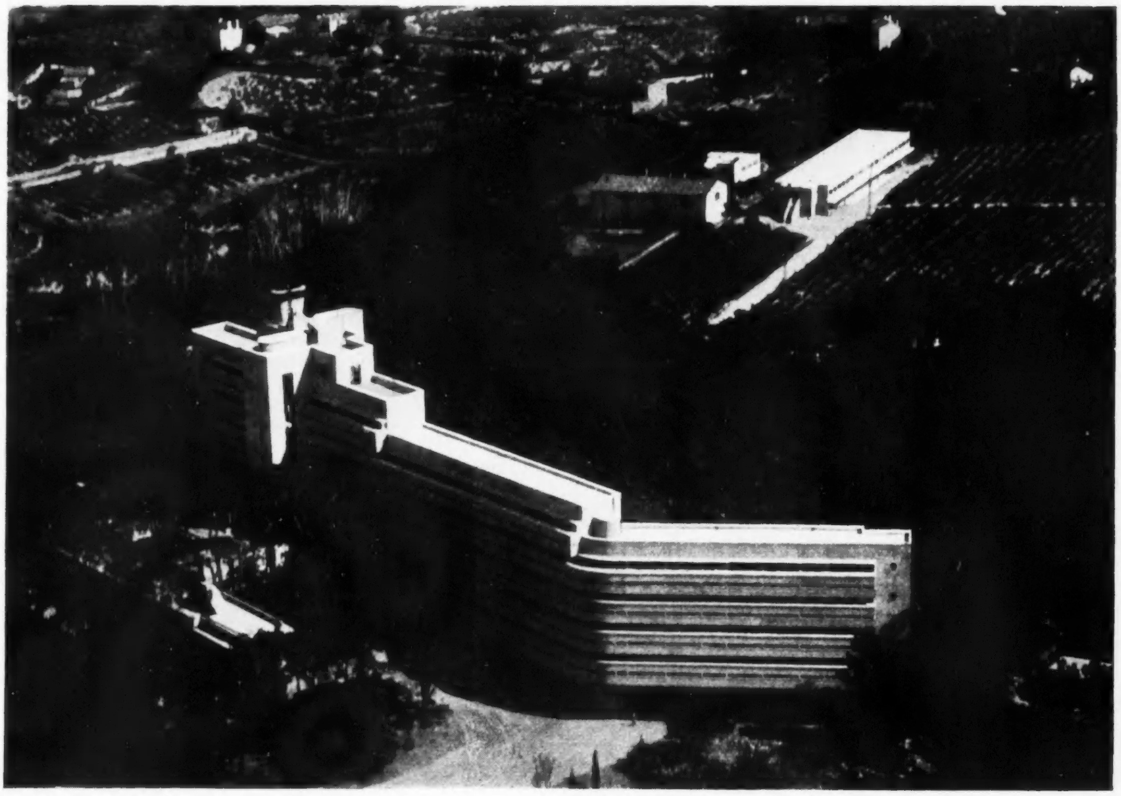
THIS week's Information Sheet pursues the important subject of lavatory accommodation. It illustrates in plan and section a standard self-contained lavatory, combining the three essential types of fittings in a manner that complies with alternative demands for ventilation. Sheets 1 and 5 should be referred to for subsidiary details.

The following is a complete list of the subjects previously issued :—

1. **Jan. 18—Plumbing Fixtures (urinals).**
2. **Jan. 25—Restaurant Seating.**
3. **Feb. 1—School Seating.**
4. **Feb. 8—Theatre Seating.**
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary accommodation.

LOOKING NORTH IN THE SUNNY SOUTH

A NEW HOTEL ON THE RIVIERA



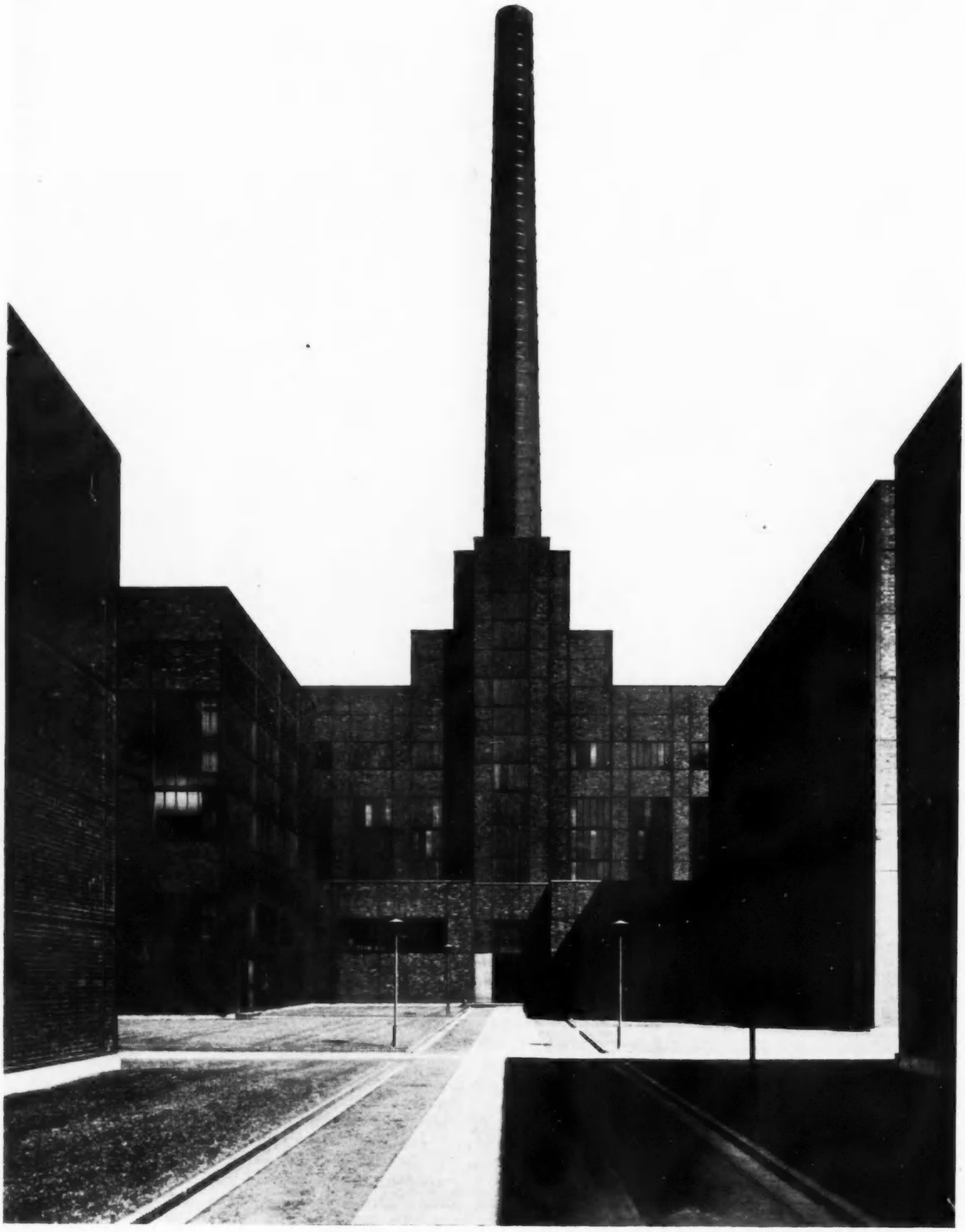
"LATITUDE 43," one of the latest additions to the hotels on the Riviera, was completed at St.-Tropez this year. As St.-Tropez is the only part of the French Mediterranean coast which faces north, incidentally possessing a magnificent view across the bay, the plan of the hotel had to be arranged so that the maximum number of rooms should have the advantage of the view, and at the same time receive their full quota of sunshine from the south. The building, therefore, is the shape of a long, high, narrow bar stretching from east to west, with windows on both sides.

The hotel has one hundred and ten rooms, most of them with a bathroom and w.c., a restaurant and patio with accommodation for three hundred, six bungalows, a sports ground, three tennis courts, two sea-water swimming baths, eight shops and a bar-casino-ballroom. There are also annexes, a reservoir, laundry, garage, chauffeurs' accommodation and farm and out-buildings.

The framework of the building is reinforced concrete, the upper parts being filled in with hollow bricks and the basement with rubble. The cellars were hewn out of the rock on which the foundations were built, the stanchions being supported on large square bases, strengthened with girders in the cellar floors.

The characteristics of the ground determined the general lay-out of the estate, which is eight hectares in area. It rises in three terraces from the main coast road to the St. Antoine road and the plateau.

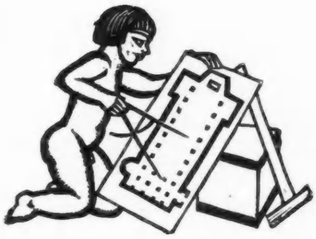
The architect is G. H. Pingusson and an article on the hotel appears in the current (April) issue of "The Architectural Review."



[By courtesy of Hochtief A.-G., Essen.

SYMMETRY AS A SYMBOL OF POWER

The boiler-house of the Vereinigte Stahlwerke's Zollverein coal-mine at Gelsenkirchen, in the Ruhr. Instead of the usual exposed piping, writhing in and out of a chaos of unco-ordinated metallic odds and ends, disciplined planning has produced logical symmetry and an all-pervading orderliness. This reinforced concrete, brick-faced structure is dominated by a towering central chimney-stack built up of circular steel sections. The neatness of the lay-out obviates any suggestion of that architectural romanticism which so often mars the monumental grandeur of an industrial complex.



" I suggest that a group of architects might seek out a virgin site, well situated for modern transport ; prepare a lay-out and detailed plans, financial calculations, etc., and proceed—in all respects as a building speculator would do—in obtaining capital and building finance." EDWIN GUNN, *A.J., April 5, 1933.*

LET THE BOY GET OUT TO WORK...

THERE will very soon become law an Act that will bring to an end a period of state control over housing that has lasted since the end of the war.

The Housing (Financial Provisions) Act, 1932, as its title suggests, is concerned with money—with the saving of money. Its author, Sir Hilton Young, the Minister of Health, has described it as being " the second and last instalment of those measures for adjusting housing policy to changed conditions," and the argument for its introduction rests entirely upon the possibility of building cheap houses without the aid of a subsidy.

The Act therefore abolishes all subsidies for house building, and hands over the financial control to private enterprise, with special reference to the building societies. It follows, therefore, that the building societies have got to provide the funds for houses to *rent*, not to *buy*, though how they are to push this class of business and earn safe dividends at the same time is not clear to us, nor, we venture to think, is it clear to the building societies.

Be that as it may local authorities are already allowed to guarantee the repayment of advances and interest made by such societies to their members, and what the Act proposes is to guarantee local authorities against one-half of any loss sustained by them where money was borrowed for small houses built to let. This involves the State in a maximum risk of £20 for a house costing £300, which is tantamount to saying that the Government has handed over complete control.

Sir Hilton Young, during the second reading of the Bill, laid special stress upon " the responsibility of local authorities to carry on " ; for he had no doubt that cheap money and lowered building costs made this possible. He pointed to a growing demand for working-class property as an investment, and, on another occasion, hazarded the opinion that " the tendency of the cost of building would be downwards by reason of the competition that would arise when enterprise was freely at work."

This is the atmosphere of cheerful optimism in which housing is finally cast upon the world to fend for itself. " Let the boy get out to work. I was supporting misself before I was his age." And Why ? Because the Government cannot do more than one thing at a time. There is housing—that is to say, little houses. And there is slum clearance—that is, dirty old houses and new tenements. And there is town planning—which is a different thing altogether.

Over each of these things the Government has some control, and for each has, or had, a policy. But to keep them all separately balanced is too bewildering ; and rather than weld them together into a properly articulated Town Planning Act, it prefers to drop one in order to concentrate upon another : to throw small housing to private enterprise while it manfully and solemnly tackles the slums.

It looks, on the face of it, as though this is what has happened, and it is going to be extremely difficult to estimate the extent to which cheap housing for renting to the poorer people can become the province of private enterprise and speculation. Except for one or two safeguards as to size and density, forced upon the Minister as an amendment, the whole burden of any control over housing is thrown upon local authorities, who are instructed by the terms of an Act that could never be described as an encouragement, and by comparison with the Government's slum clearance manifesto might even be translated as offering a warning to let small house building slide.

Real financial control is vested in the largest lender, which is to be the building societies, and further control over plan, equipment, etc., lies with a Town Planning Act that is by no means in universal operation.

Now, either the building of small houses for letting will or will not be profitable, and houses of the right type will be built if they can show a profit, and otherwise not built, or built at such a lowering of standards as can be brought about in the quite different atmosphere engendered by the new Act. We return, as Mr. Greenwood remarked, to pre-war conditions, which can never be made to prove that private enterprise was capable of solving the problem of working-class housing.

In all this one seeks in vain for any other policy than that of *laisser-faire*, unless Sir Raymond Unwin's plan for a National Housing Corporation, at present being examined, stands any chance of being incorporated into the fabric of small house building, to direct and control a large-scale policy of development.

What the new Act will really do for housing remains to be seen. It may add a number of houses, to let at relatively high rents, to what remains of the landscape ; it cannot, as far as we can see, begin to deal with the house to let at a low rental, since the building societies never lend up to 90 per cent. where the security is not " gilt-edged." In a year's time, we believe, we shall be no nearer a solution to the problem than we are today.

However that may be, one thing is certain ; the need for small houses is so great that an enormous campaign of building in the near future is inevitable. Surely the architect should be ready for it? An attempt is being made in this JOURNAL, in the articles *What is to be Done About This?* (see page 493), to deal with some of the problems, and some of the possible solutions. We invite those architects who are interested to contribute their views to the common pool.

CORRECTION: By the appearance of a misquoted figure in the last line of last week's leading article, its whole argument was vitiated. The sentence should have read " . . . employing precisely that number of men which it would cost £30 million (not £13 million) to keep idle."

The clock at Casani's Club, Regent Street, W. The " hands " are of chromium-plated metal, and the dial is black glass; the whole is affixed to a balustrade of silver-bronze.

NOTES & TOPICS

NATIONALISM AND ARCHITECTURE

THE Architecture Club diverted itself last week by discussing whether Architecture should be National or International. Mr. Geoffrey Webb opened the discussion and was trenchantly critical of " romantic people who talk about revolution because it increases their own importance." He warned the modernists that when they are old men they mustn't be as stupid as the old men of today.

*

Nearly all the speakers assumed that scholarship and experience inevitably rot down into stupidity. At least the ideas of the old gentlemen in practice today have weathered; the bright young modernists and their bright young materials may only get tarnished by the years.

*

The danger of a very shoddy future for the modern movement was emphasized by Mr. Towndrow, who reminded the Club of the harm done by erstwhile traditionalists who have been converted to modern architecture because they think it is beginning to pay.

*

Heading the discussion back to its subject, Mr. Towndrow said that all architecture should be " International, Communal, and, incidentally, anonymous."

*

Meanwhile, the nations of Europe seem intent on destroying all traces of internationalism. A style of turbulent romanticism may spring out of the new German nationalism. Bonehead baroque may well be its name.

*

There is, by the way, no truth in the rumour that statues of world-famous anti-semites are to be erected in every German town. There is also no truth in the suggestion that the Nazis were deterred from carrying out such a scheme by the enormous amount of bronze needed for the adequate duplication, even life-size, of Mr. Hilaire Belloc and Mr. G. K. Chesterton.

*

A NATIONAL DEVELOPMENT PLAN IN THE " HOUSE "

I hear that after the Easter Parliamentary recess Dr. W. H. McLean, Conservative M.P. for the Tradeston division of Glasgow, hopes to introduce a motion calling attention to the need for a National Development Plan. Dr. McLean planned the City of Khartoum, under the personal direction of the late Lord Kitchener; the City of Jerusalem, the scheme for which was officially approved by Lord Allenby; and the City of Alexandria.

*

He is, therefore, a man with practical experience in the planning of regions and towns. He tells me that he largely attributes his decision to press for a National Development Plan and Survey in the House of Commons to the " admirable articles published on the subject early this year in THE ARCHITECTS' JOURNAL."

*

The exact words of his motion are: " That, in the opinion of the House, it would be advantageous to prepare a national development plan or survey to assist the Government in estimating the effect of the prevailing social and economic tendencies on the nature and extent of the development for which local authorities should provide in their planning schemes; and also to assist the Government in taking any action in the light of these tendencies which may be necessary to co-ordinate and promote the trade and other developments of the country under private enterprise."

*

A HOMESICK SURVEYOR

Last week, I met a naval friend who has just returned from the West Indies in H.M.S. *Frobisher*. He showed me several interesting photographs taken by one of the petty officers. One of these, reproduced herewith, had the following caption on the back: " A milestone in Somerset, Bermuda (evidently the work of a homesick surveyor!) "

A milestone in Somerset, Bermuda.

B.B.C. TALKS ON "DESIGN IN MODERN LIFE"

Next week, on Tuesday, April 18th, the first of a new series of talks on "Design in Modern Life" will be broadcast in the B.B.C. National Programme, from 8.30 p.m. to 9 p.m.

*

The series has been planned by the B.B.C. in collaboration with the Design and Industries Association. It opens with a discussion on design between Messrs. John Gloag, Geoffrey Boumphrey and Edward Halliday.

*

In the course of the series Mr. Robert Atkinson, F.R.I.B.A., Mr. E. Maxwell Fry, A.R.I.B.A., and Mr. Wells Coates will give talks. Mr. Frank Pick, the President of the D.I.A., discusses the design of the street and also gives the final talk which sums up the series. It sounds stimulating.

*

TOWN PLANNING DISCUSSION

Mr. A. R. Potter, the Secretary of the Town Planning Institute, tells me that Mr. K. S. Dodd will be unable to read his paper on "Town Planning in Russia" at the Institute's meeting on the 28th of this month. It is a pity, for I was looking forward to attending this meeting. However, the evening will be devoted to a discussion on the new powers contained in the Town and Country Planning Act, 1932, for prohibiting or regulating building operations. The meeting will be held at Caxton Hall, Westminster, S.W., at 6 p.m.

*

THE THREAT TO RICHMOND RIVER FRONT

When economic conditions begin to tamper with the settled amenities of a place like Richmond it is time to consider what we mean by town planning.

*

The particular beauty of the Richmond river front is the product of eighteenth- and early nineteenth-century building, a remnant of lordly taste and cultured speculation, for which we lack an equivalent today, and are therefore forced to rush into print about vandalism, spoliation and the rest whenever a builder wishes to use an old site for modern residential purposes.

*

Something has got to be done to bridge the uncomfortable gap. ALL the things we like are in danger because they lie, so many of them, at the centres of population. They fall away in bits and pieces, and we insert new pieces in a new pattern and hope for the best.

*

Can we never PLAN what we will do with all these places, so that when and as they crumble away or cease to be of use, we shall be prepared to substitute something better, that will serve the community directly? A peep into my lord's garden is all very well for the eighteenth century; we should be able to build towns for people to enjoy.

*

STREET OR PARKWAY AT KINGSTON?

If we had national planning there might be a right of appeal by the local council for funds to prevent the Kingston by-pass, in its most beautiful stretches, from becoming a street instead of the very lovely parkway it now is.

*

We have succeeded in making a Great West exit road into a conglomeration of factory façades through sheer ineptitude. Our forefathers gave us a clear run south out of London through miles of common. Yet it appears that we are prepared to finish this with a wide suburban street because the local council cannot afford to buy an owner out. It reads like madness, especially when we know that everyone wants to keep that parkway open. O Brave New World!

*

THE I.H.V.E.'S. JOURNAL

I would like to offer my congratulations to the Institution of Heating and Ventilating Engineers on the first publication of its monthly journal. It should prove of great value to the industry, and, as Sir Raymond Unwin says, in a letter of appreciation to the Institution: "It is very encouraging to see your Institution occupying the present time of depression in this valuable project for spreading more rapidly any fresh and helpful knowledge." ASTRAGAL

*

THE ARCHITECTS' DIARY

Wednesday, April 12

R.I.B.A., 9 Conduit Street, W.1. "What London Might Be." By A. B. Knapp-Fisher, F.R.I.B.A. 6 p.m. Also exhibition of photographs, etc., of the work carried out by the Department of Ancient Monuments and Historic Buildings. (Last day.) 10 a.m. to 8 p.m.

SCIENCE MUSEUM, South Kensington, S.W. Exhibition of Plaster Materials and Their Products. Until September.

INSTITUTION OF STRUCTURAL ENGINEERS. Lancashire and Cheshire Branch. *At the College of Technology, Manchester.* Annual meeting. *7 p.m.*

Thursday, April 13

INSTITUTION OF STRUCTURAL ENGINEERS. Yorkshire Branch. Annual Meeting. At Leeds. Discussion on "The Sixth Order of Architecture," to be opened by W. T. Lloyd-Jones.

LONDON SOCIETY. Maundy Thursday Service at *Westminster Abbey*. A limited number of tickets are reserved for members. 12 *noon.*

Saturday, April 15

Sunrise 6.6 a.m. Sunset 7.56 p.m.

NEWS

POINTS FROM THIS ISSUE

Sir G. Gilbert Scott's new church has no aisles 490

The discovery of reinforced concrete drove the last nail in the coffin of the architecture of conservatism 493

Drastic improvements will have to be effected in the lay-out of streets if the true value of the "round-about system" of traffic control is to be obtained 493

Out of 500 houses, it would be easy to find 500 bays with 500 gables decorated with 1,500 pieces of sham half-timbering 493

The slums of the future are being built today 497

"We have not yet started the least bit of intelligent planning" 507

CARLTON HOUSE TERRACE

In the House of Commons last week Sir Arthur Steel-Maitland asked the Prime Minister whether he could now announce the terms of reference and composition of the proposed Standing Committee to advise the Commissioners of Crown Lands in connection with the development of the Crown's urban property.

Mr. Ramsay MacDonald said that the terms of reference were :—

> To advise the Commissioners of Crown Lands on questions remitted to them by the Commissioners relating to the development of the Crown's urban estates, with particular reference to æsthetic and similar considerations of public interest.

It would be understood that it was open to the Committee, if they so wished, to offer advice on any matters of public interest affecting property administered by the Commissioners of Crown Lands, other than those arising on cases formally remitted to them.

The Committee had been constituted as follows :—

> Lord Gorell, C.B.E., M.C. (Chairman) ; Lord Jessel, C.B., C.M.G. ; Mr. Frank Pick ; Sir Raymond Unwin, F.R.I.B.A. ; Sir John Oakley, O.B.E. ; and Mr. E. V. Lucas, C.H.

The appointments were for a period of four years ; members would be eligible for reappointment. The Committee could co-opt *ad hoc* for purposes of consultation, and they were also being asked to co-opt representatives of local government bodies specially concerned with any individual project. Arrangements would be made before action was taken on any question which had been remitted to the Committee to make public their recommendations. The full reports would be regarded as confidential. The appointment of this Committee did not in any way affect the arrangements as regarded the Royal Fine Art Commission, whose advice on questions within their sphere would continue to be sought as heretofore.

Particulars of new building schemes to the value of over £400,000 have been received by the Building Industries National Council from hospitals throughout the country, in answer to an inquiry sent out by them. These include work at Grimsby Hospital (£80,000) ; nurses' home, now in course of construction at Royal Hospital, Leicester (£55,000) ; extensions at Royal Hospital, Gloucester (£40,000) ; Royal Hospital, Worcester (£63,000) ; Paignton Hospital (£20,000) ; medical school, King's College Hospital, London (£40,000), etc. "These figures," states Mr. H. B. Bryant, Secretary of the Public Relations Committee of the B.I.N.C., "refer to schemes either being carried on or being put in hand at once. They are, I think, an indication of the courage and confidence of hospital authorities as compared with the Government, which still seems to see virtue in keeping one-quarter of a million men on the dole rather than in employment, creating national assets."

The list of subscriptions received by the Public Relations Committee of the B.I.N.C. up to Monday last amounted to £2,431/0/10. Subscriptions should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

HOUSING ACT

Following are some extracts from Circular 1331 dealing with the Housing Act 1930, Part I, issued by Mr. W. A. Robinson of the Ministry of Health.

> The present rate at which the slums are being dealt with is too slow and His Majesty's Government look for a concerted effort between the central government and the local authorities immediately concerned to ensure a speedier end to the evil. It is necessary to concentrate upon direct action.
>
> For over 20 years, the Local Authority have had the duty of inspecting and recording the condition of all working class property in their area. The records kept in accordance with this duty should now provide a complete picture of the conditions of the Borough or District. I am, accordingly, to request that they will now proceed to prepare and adopt a programme, the components of which should be—
>
> (1) A list of the areas in which clearance is necessary, with information of the number of houses to be demolished in each, and of the number of their inhabitants.
>
> (2) A list of the areas in which improvement by way of reconditioning or otherwise is necessary, with information as in (1) above.
>
> (3) A time-table for the initiation, progress and completion of action to secure clearance or improvement, as the case may be, of all these areas ; and
>
> (4) A time-table of rehousing co-ordinated with the displacements contemplated by the time-table of clearance operations : (*b*) to make an immediate beginning with the programme.

RECONDITIONING OF OLD COTTAGES

The Ministry of Health are pressing local authorities in rural districts to proceed more quickly with the reconditioning of old cottages, suitable for occupation by agricultural labourers. A good deal has been done, especially in the county of Devon, but in some places there have been bad blunders. One of the difficulties is that the drawings of cottages to be repaired are often made by entirely untrained men, and are therefore inaccurate and crude. In such a county as Yorkshire, for example, outlying rural cottages may be 30 or 40 miles away from a chartered architect. Without reliable drawings, it is often difficult to ensure that reconditioning is carried out in the most satisfactory manner.

MR. G. H. JACK

On Saturday, April 1, Mr. G. H. Jack, F.R.I.B.A., retired after twenty-six years' service as county architect and county surveyor of Herefordshire. He has now joined the staff of the C.P.R.E.

NEW RADIO STATION

The B.B.C. announce that a contract has been placed for the erection of the Midland Regional Station on the site acquired at Wychbold, near Droitwich. Work is to be begun immediately.

ROUND HOUSES

Miss Grace Cope, speaking at a dinner of the Lyceum Club last week, suggested that "the wastage of health, both mental and physical, would be practically nil in a circular house." The walls of our homes, she said, should merge into the ceiling. If we could get curves standardized in the architecture of our homes we should have a much stronger nation. Our houses must inculcate an atmosphere of harmony.

EXHIBITION OF INDUSTRIAL ART

The International Exhibition of Modern Decorative and Industrial Arts is to be held at Milan from May 6 until September 30. There is to be a British section.

M.P.'S SUBWAY FOR PUBLIC

The subway under Bridge Street leading from Big Ben to the corner of the Embankment is (according to *The Daily Telegraph*) to be made available for public use, subject to the existing rights of user and the control enjoyed by the Government not being curtailed. The subway was constructed in 1869 for the convenience of Members of Parliament.

THE BUILDING CENTRE

H.R.H. Prince George paid a surprise visit to the Building Centre on Wednesday last, and spent an afternoon closely inspecting various exhibits, particularly those connected with industrial and factory buildings and houses.

THE WELSH SCHOOL

A party of students and staff of the Welsh School of Architecture, the Technical College, Cardiff, visited, on April 4, the new refectory and extensions for the University College Students' Union, designed by Mr. T. Alwyn Lloyd, F.R.I.B.A., and the Bute Terrace works and showrooms of the Cardiff Gas Light and Coke Co.

GARDEN CITY FOR SUSSEX?

A £1,500,000 garden city to accommodate a population of 10,000 people has been mooted. It is to be developed at Bolney, near Cuckfield, on part of the Garston and Chaites estates. The promoters of the scheme have secured the co-operation of the Abbey Road Building Society. It is intended to erect about 2,000 houses on the most up-to-date lines. All heating and hot water services will be maintained from central oil-fuel furnaces; there will be no fireplaces, and therefore no chimneys. Electricity will be used. The scheme also provides for the erection of schools, shops, places of amusement, etc. Mr. Maxwell Ayrton is the architect.

Mr. Ayrton, according to *The Daily Herald*, states that he will make a tour of the latest types of architecture abroad, to obtain new ideas for the houses.

"They will be right up to date and will depart a good deal from what is regarded now as modern practice.

"One ideal is to get more comfort for the money than is at present thought possible. Every modern idea of hygiene will be studied, with regard to lighting and windows and admission of sunshine."

EXHIBITION OF PLASTIC PRODUCTS

An exhibition entirely devoted to plastic goods was opened by Mr. H. Ramsbotham, Parliamentary Secretary to the Board of Education, at the Science Museum, South Kensington, S.W., on Wednesday last.

THE POLYTECHNIC SCHOOL

The Polytechnic School of Architecture, Surveying and Building propose to give a dinner to Mr. George A. Mitchell, F.R.I.B.A., who is retiring from the Headship of the School. The dinner will take place on June 1, and it is desired that old members of the School staff, old students and friends who would care to attend will communicate as soon as possible with Mr. J. A. Ray, or other member of the School staff, so that the necessary arrangements can be made.

Mr. Joseph Addison, F.R.I.B.A., has been appointed in succession to Mr. Mitchell. He has been in charge of the Leeds School of Architecture since 1921.

R. I. B. A.

ELECTION OF MEMBERS

At a council meeting of the Institute, held last week, the following members were elected:

As Fellows (4): Messrs. Joseph Addison, F. L. Charlton, Major R. A. Cooksey, and Mr. S. Evans.

As Associates (21): Messrs. R. M. Archibald, H. Bennett, L. Berger, C. F. Blythin, G. H. Bray, H. A. Burton, A. Crichton, L. Darbyshire, G. L. Greaves, G. F. Hassell, G. H. Mewton, A. Miller, A. A. V. Montagu, J. O. Nelson, R. S. Nickson, W. R. Onions, W. C. Powell, F. R. Pullan, E. C. Scherrer, J. E. Towers, and F. W. Wright.

Joseph Addison, F.R.I.B.A., who has been appointed headmaster of the School of Architecture, Surveying and Building, at the Regent Street Polytechnic, London.

As Licentiates (6): Messrs. G. Dawes, H. W. Ford, C. E. Fox, W. C. Mangan, L. F. Smith, and R. W. Willcocks.

PRIZES AND STUDENTSHIPS

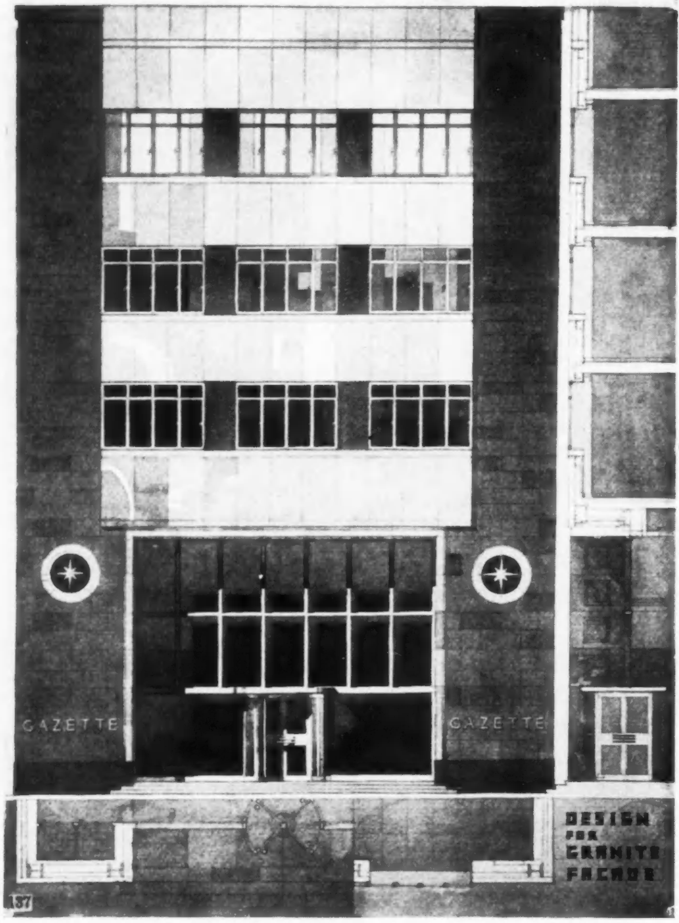
The R.I.B.A. Prizes and Studentships Pamphlet for 1933-1934 has just been issued. The pamphlet contains full information upon the various prizes and studentships, together with, where applicable, the detailed programmes for the competitions.

Copies of the pamphlet are obtainable at the R.I.B.A., price 1s., exclusive of postage.

WHERE LONDONERS SHOP

To the English people shopping is more than a mere commercial transaction, it is a pleasure, even a national sport, and because of this London is the greatest shopping centre in the world for sheer variety and comprehensiveness. One can buy anything in London from a cholera germ to a white elephant. And since we are a nation of shopkeepers we are also a nation of inveterate shoppers. Vast businesses have therefore been built up and huge buildings erected either to enhance the pleasures or to mitigate the horrors of shopping, and it was with these buildings that Mr. F. S. Towndrow dealt in his lecture on "Where Londoners Shop" at the R.I.B.A. on Wednesday, April 5.

The architecture of the City Mr. Towndrow described as muddled, citing Gamage's as a typical example of this, and passed on to the Strand, "a dirty, tumble-down bazaar," neither aristocratic nor slummy but a marvellous mixture of both, containing oyster-bars, railways, pubs., churches, theatres and Woolworth's. It did contain, however, what is, in Mr. Towndrow's opinion, the finest modern shop in London, the Civil Service Stores, designed by Messrs. Ellis and Clarke.



The scheme awarded first prize in the competition for a façade for a newspaper office. By Kenneth Peacock and Brian O'Rorke. See Competition News.

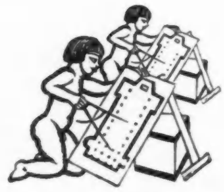
He pointed out that three questions should be asked of every building. Is it appropriate? Is it orderly? Does its design show the workings of a gentle and sensitive mind or is it vulgar? These three principles of architectural criticism, Fitness, Orderliness, and Gentleness Mr. Towndrow then applied to that unfortunate thoroughfare, the Tottenham Court Road, one building only, that of Heal's, emerging with credit from the test. Oxford Street was wholeheartedly condemned. "The Strand," said the lecturer, "makes me laugh: Charing Cross Road, beyond doubt the foulest street in Christendom, fills me with misery; but Oxford Street just maddens me." In short, Oxford Street had no dignity. Bond Street, the most expensive and exclusive street in our capital, he described as "a funny little street," a narrow tortuous affair of no architectural significance whatsoever, usually jammed with traffic, but nevertheless possessing one or two excellent buildings, amongst them Atkinson's. Regent Street with all its faults he considered the only dignified and orderly shopping street we have, in spite of the general level of mediocrity maintained throughout its length.

INTERMEDIATE EXAMINATION

The following are the dates on which the forthcoming R.I.B.A. Intermediate Examination will be held:—

May 26, 27, 29, 30 and June 1, 1933. (Last day for receiving applications: April 26, 1933.)

COMPETITION NEWS



FAÇADE IN GRANITE

The result of the Competition, organized by the Architectural Association on behalf of the Cornish Quarry Masters' Association, for the design of a façade for a newspaper office in granite, was announced last week as follows:

First Prize (£50): Messrs. Kenneth Peacock and Brian O'Rorke, AA.R.I.B.A.

Hon. Mentions: Messrs. E. C. Kent, A.R.I.B.A.; H. A. Townsend, Student R.I.B.A.; G. D. Griffiths, A.R.I.B.A.; (Mrs.) Hilary Bannatyne Lewis; and W. Crabtree, A.R.I.B.A.

Selected for Exhibition in Cornwall: Messrs. A. G. Lorimer; C. J. Parker, A.R.I.B.A.; H. Pittaway; O. F. Savege, F.R.I.B.A.; John T. Darch; R. G. M. Chase; W. Valder; T. Snailum, A.R.I.B.A.; T. W. Sutcliffe, A.R.I.B.A.; T. A. Collins, A.R.I.B.A.; Messrs. Hume and Erith, AA.R.I.B.A.; D. L. Couves; J. H. Baker; Aiton and Scott, AA.R.I.B.A; and S. C. G. Lambert.

164 competitors, including two from South Africa, submitted 172 designs. The assessors were Messrs. A. B. Knapp-Fisher; G. Grey Wornum; Howard Robertson; and two members of the Cornish Quarry Masters' Association.

Competitions Open

April 13.—Design for a new exhibition hall at Manchester for the Management of the Manchester Building Trades' Exhibition. Premiums: £150, £75 and £25. Full particulars were published in *A.J.* for February 15.

May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

OBITUARY

We regret to record the death of Mr. James F. McMullen, F.R.I.B.A., K.C.S.G., which recently took place at his home in Cork in his seventy-third year. He was the architect of University College Chapel, Cork, and many other public buildings.

We regret to record the the death of Mr. Malcolm Sparkes, the founder of Drytone Ltd., which took place at his home at Beaconsfield on Thursday last in his fifty-first year. He originated the Building Trades Parliament scheme, out of which the Whitley Councils developed.

ON THE AIR

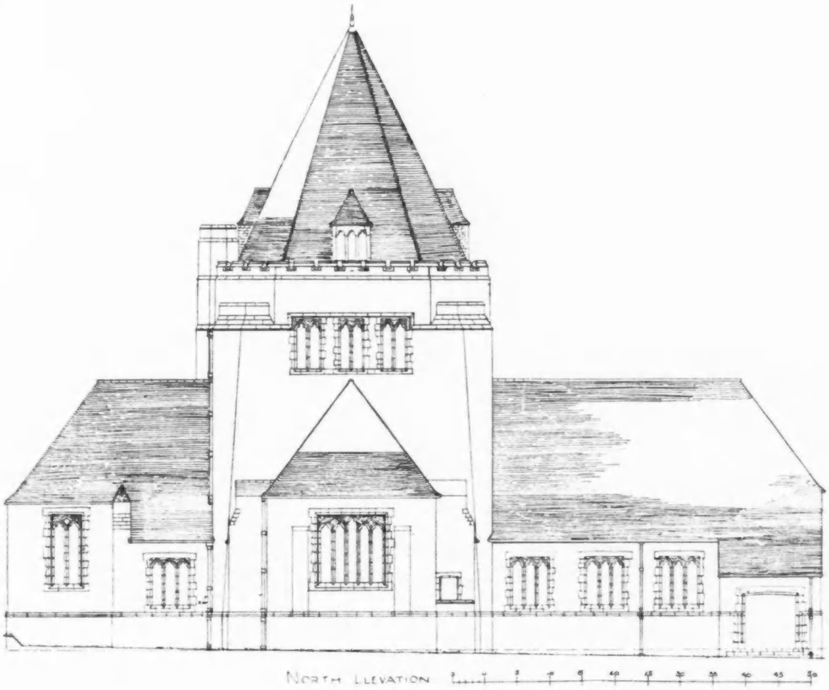
On Tuesday next, April 18, the first of a series of weekly talks on "Design in Modern Life" will be broadcast in the National programme at 8.30 p.m. (until 9 p.m.). Each talk will consist mainly of dialogues between an expert and another speaker representing the listener's point of view. Messrs. Edward Halliday, Geoffrey Boumphrey and John Gloag will introduce the series in a three-cornered discussion. At the end (June 27) the series will be summed up by Mr. Frank Pick, President of the D.I.A., which has co-operated in the arrangement of the series.

*

The third of the series, "The Economist in the Witness-Box" will be broadcast in the National Programme on Monday next at 9.20 p.m.

The series is in preparation for the expected World Economic Conference.

ST. ALBAN'S CHURCH, GOLDERS GREEN, N.W.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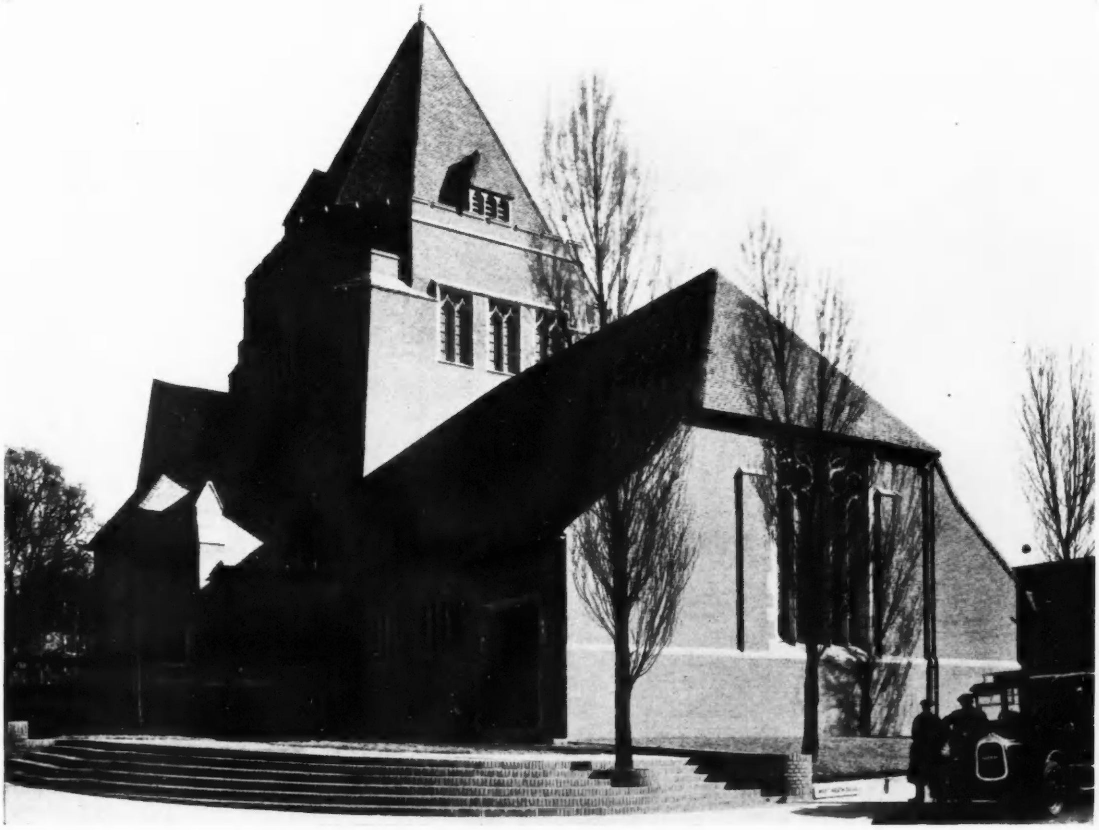
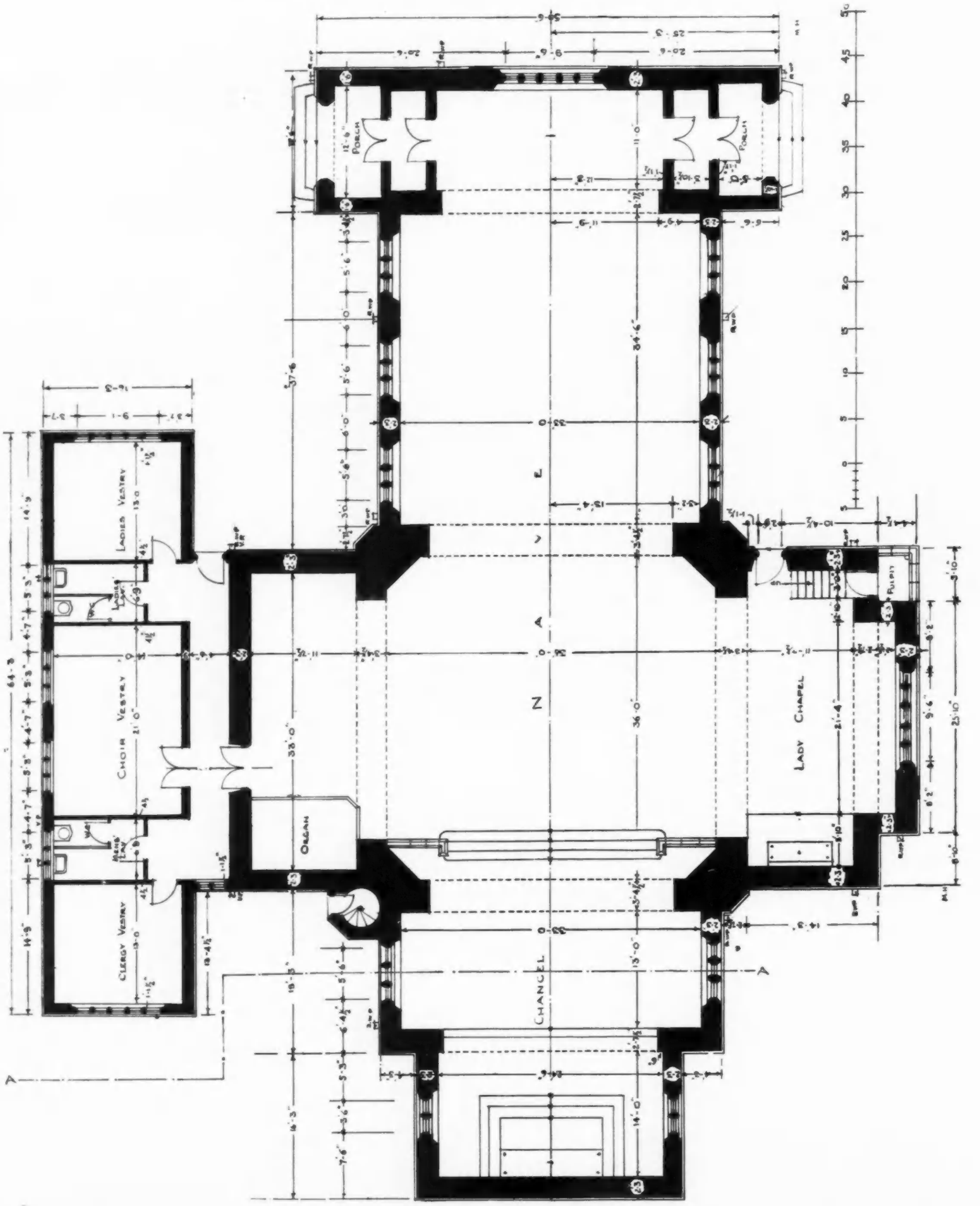


DESIGNED BY SIR GILES GILBERT SCOTT, R.A.

ST. ALBAN'S, GOLDERS GREEN : BY SIR G. GILBERT SCOTT, R.A.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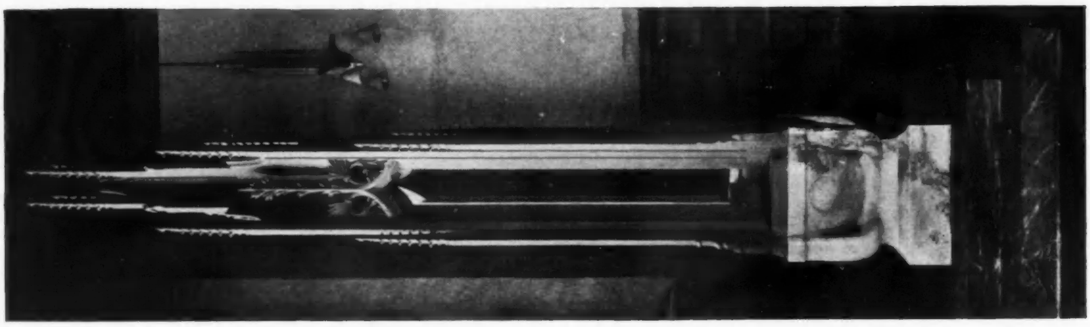


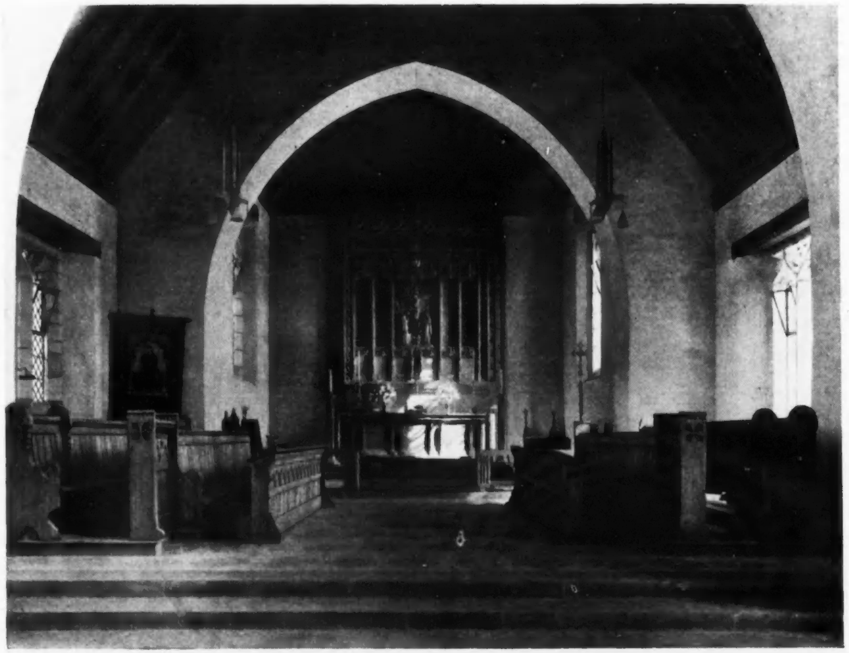
St. Alban's Church stands upon a level site at the corner of North End Road and West Heath Drive, Golders Green. The church previously existing at the end of the site has been retained, with some modifications, and is now to be used as a parish hall. Owing to the nature of the soil, it was found necessary to construct the foundations of the new church of reinforced concrete piles of an average length of 30 ft.

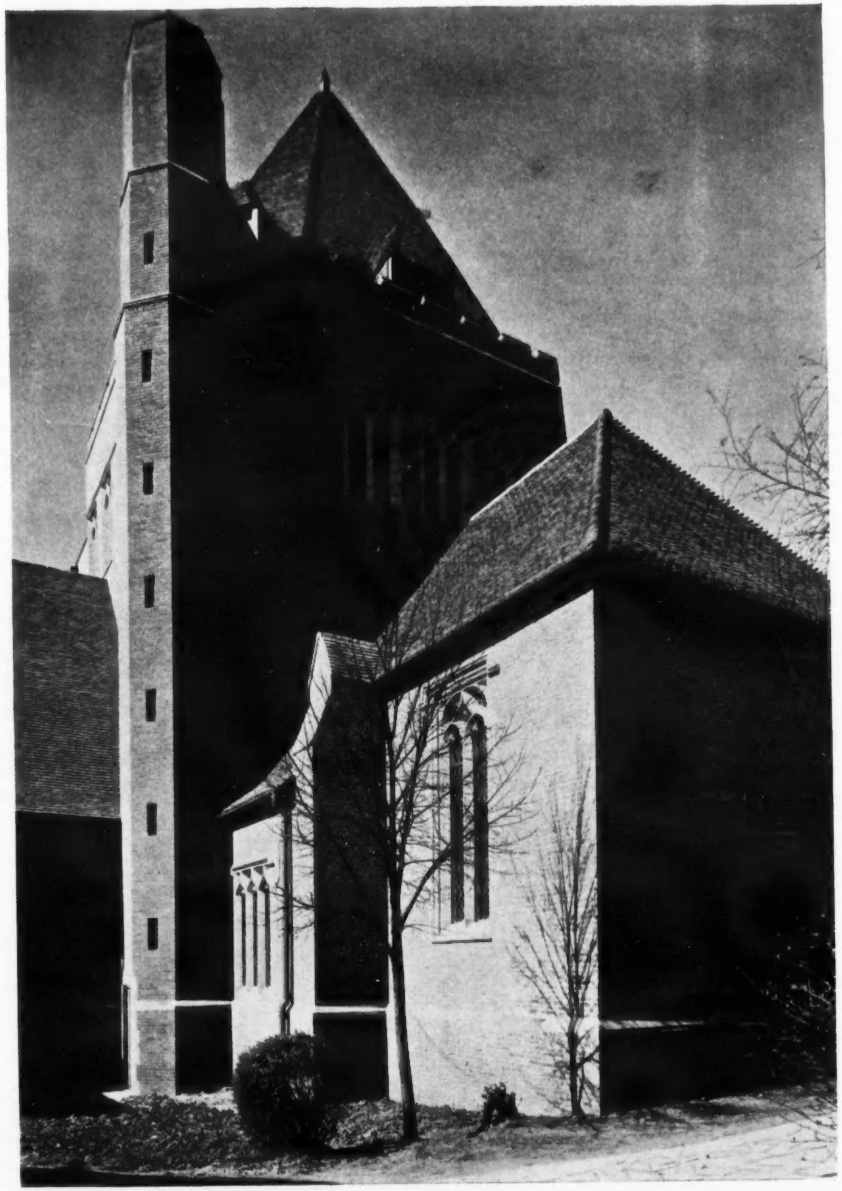
The plan is cruciform. There are no aisles and, consequently, no rows of columns, which in so many churches obstruct the view of the altar. The north transept forms the Lady Chapel, while the south transept is used for the accommodation of the organ and for seating. The vestries are approached from this transept and have also, of course, an independent external entrance. The main blocks of seating, in the nave and central space, provide for approximately 450 persons.

The main entrance to the church is by two porches flanking the west end of the nave. There is also an independent entrance to the Lady Chapel. The open-air pulpit is approached by a flight of stone steps inside the building.

The walls are faced externally with narrow bricks of a brownish colour. The stonework employed for the windows, doors and dressings generally is Clipsham. The roofs, including the spire, constructional details of which appear in a supplement with this issue, are covered with tiles.

Internally, the walls are plastered, and there is a dado, about 4 ft. high, composed of Blue Hornton stone. There are open timber roofs.





"*MY PROVINCE IS* ALL STRUCTURE"

[*By E. MAXWELL FRY*]

The substance of a lecture delivered, as briefly recorded in our last issue, before the Design and Industries Association at Manchester on March 29.

MODERN architecture has its roots in the past—of the last hundred years. Its growth is not direct. It represents a confluence of maturing forces. I want to present it as the inevitable outcome of cumulating forces, social, economic, scientific and æsthetic, inextricably intertwined but capable of separate examination.

Remembering that they are so entangled, I am going to separate out for analysis :—

(*a*) the movement of revolt against the industrial system which brought about sociology, garden city housing and town planning ;

(*b*) the gradual disintegration of the fabric of English architecture from various causes ;

(*c*) the growth of engineering, structural and mechanical ;

—hoping that at the end it may be shown how all these forces combine, in the one instrument of a structural architecture, which for want of a better name we call " modern," meaning, *of our day, of us*.

In 1833, one hundred years ago, Lord Shaftesbury's first Factory Act was passed to restrict current abuses of adult and child labour.

The application of machinery and power to production, coupled with a limitless world market, had engendered an industrial expansion far too rapid for the mind of man to compass.

The philosophy of the eighteenth century was not available for a movement that had so little to do with the old orders of society, and inevitably it became a blind force of undirected multiplication of wealth, power, population and building, balanced by a dead load of ignorance, brutality, dirt and disease.

Towns evolved through the unplanned accretion of individual enterprise and speculation. Factories and houses grew up together in a solid smoking mass in which no decent life could be lived, but from which there appeared to be no escape.

The movement of revolt which sought first to restrict the worse forms of semi-slavery of the lowest classes, recognized at an early stage that bad and insanitary housing, if not the chief evil, undoubtedly negatived the value of other remedies proposed. Architecture was not considered by the early reformers, who were concerned with the bettering of conditions of sanitation and hygiene, which, left but a little longer, were leading to a really serious spreading of disease.

Various laws aiming at the regulation of communal sanitation and hygiene were consolidated in the Health Act of 1875, which became a charter for the communal control of building in the interests of the working classes. Its provisions were uniformly sanitary, but bore no traces of any thought of architectural planning or design. They were purely restrictive and produced housing that was barrenly hygienic, and killed painlessly through the boredom of endlessly-repeated, negatively-produced houses. We call these places " Bye-law streets" as a term of reproach.

The garden city differed in being the product of an idea, though I believe in essence a mistaken one. To understand it properly one must read it as an idea that gained its strength as it appeared to differ from that lying behind the industrial system. It had what the psychologists call a " release or defence motive," that offered the congested, unhealthy and unhappy town dweller a cottage on a little plot of land, sufficiently removed from contagion. That was and is still the ruling motive of the garden city movement and of town planning as we find it reflected in every Act from 1909 to 1932. Whether it is a wide enough basis for the work which housing and town planning is called upon to do is for us to decide. I agree with Mr. Thomas Sharp, the author of that provocative book *Town and Countryside* that it is not, and that not only does its sociological bias leave out of account human desires for closer congregation, but that upon economical and upon æsthetic grounds the movement is unconstructive and weak.

What it has done on the positive side is to substantiate a poor man's moral right to light, air and space ; and that we will remember to be a great achievement, however costly.

On the negative or destructive side it has offered a model which makes a virtue of space to the extent of allowing towns to spread at a wickedly accelerated pace over miles of good country, settling vast populations evenly and thinly in a hazy and badly co-ordinated organization of crazy roads. Flying from the mess of the industrial disaster it has rejected the whole ennobling idea of urban life in favour of this hand-worker's notion of an earthly paradise at 12 houses to the acre. For this it is prepared to lay extravagant miles of sewers and services, to increase the costs of distribution and collection and send trooping to and from the *vital* centres of population millions of workers.

There will have to be clearance and replanning, for we cannot go on pretending that we can afford to leave a bad thing to look after itself. But what can town planning, with its present garden-city uneconomic bias, offer in solution ? There is no effective answer to that question.

There for the moment I will leave this strand of my argument to take up another. I have no cause to enlarge upon the virtues of eighteenth-century classic architecture. Its virtues are known to us, for we have with fair success attempted to revive it as a living style, misnamed tradition. At the beginning of the nineteenth century Late Georgian architecture had reached a point of exquisite refinement. To imagine it capable of unlimited advance is an error which closer investigation of the growing academic control in the early part of the century tends to confirm. But in any case its delicate precision was blurred by the onrush of material expansion, and it dissolved utterly ; nor from that day to this has there flourished another architecture in which the structural and spiritual contents were at peace.

The Gothic revival has been given a variety of explanations, but, broadly speaking, we can regard it as a stop-gap in a period of rapid change. Romanticism and liberation went together. The leaders of the French revolution opposed artificiality by a revival of naturalism. *The noble savage* fitted well with ruins ; and in the same way mediæval architecture, by reason of its communal basis or because of its remoteness from the industrial system, became a vehicle for expression of that sense of frustration and disappointment which animated those who opposed machinery and factories. It was an uncertain stimulus, not calculated to produce a stylish architecture and it seems useless to pretend that the revival was not a disastrous misfortune, that, while it left a few good monuments behind, it wreaked incredible damage in the town and set us on a path away from the grand restraints of urban planning into the meanderings of the garden city.

Even the much saner revival of early English Renaissance architecture, the break-away from Morris mediævalism, organized by Norman Shaw, Reginald Blomfield and others, was doomed to failure, coming as it did much later in the story of mechanical perfection. In any case it was too much the architecture of gentlemanly scholarship to be able to grapple adequately with the overmastering programmes set by a democratized civilization.

It was in the complex programmes offered to architects by commerce, industry and the mass entertainment and recreational business that failure was chiefly noticeable. The great shopkeepers who patronized architects as a form of snobbism declined to make martyrs of their businesses in the name of Christopher Wren. They demanded plate glass windows at pavement level whatever might happen above, and the world was thereby treated to the spectacle of much grand traditional masonry standing on a wall of glass. The man in the street began to laugh at this point, and the pretence became barely supportable.

But still it went on, and in the burst of building activity following the war we have seen masses of costly construction—banks, shops, theatres and offices—erected on the principle of covering a steel framework with Portland stone in the likeness of some dead style—English, Italian, Roman or what not. Light and function are absent from these buildings.

Yet they house highly complex organizations aiming at maximum efficiency. We realize the value of sunlight for clerical work, we use machinery, and we recognize that steel and concrete call for light and rigid construction as essential to their true economy.

One can only assume that architects are guided by the still unexpended force of an æsthetic deeply engrained and as difficult to cast off, and that, helplessly bound by this association, they have watched their province being eaten into by engineers, public officials, shop fitters and decorators. This, I am afraid, is the truth.

How did it happen ? To answer this question I must unravel the last thread of the skein, to define the engineers' contribution, and how this leads us towards the final solution we aim at.

Engineering made use of the first factory-produced building material, steel. Steel is manufactured under conditions of scientific accuracy that enable it to be sold with an inflexible guarantee that it will carry stresses for which it is designed.

This element of precision made possible the erection of structures of an entirely new order with every degree of safety. Compared with traditional methods of building its economies were so remarkable that even when used with extreme caution nothing was so cheap in cost or rapid in construction. The Menai Tubular Bridge, designed in 1850 for the carrying of such trains as were within the comprehension of engineers at that time, carries today, without evident signs of fatigue, the immensely greater weights of the Irish Mail trains that roll daily across it.

But constructional steelwork performed still greater wonders. The Crystal Palace, built for the Exhibition of 1851, was a marvel of structural ingenuity and fine design. In 1889 Eiffel built the tower that bears his name, as the centre piece of another exhibition, to show the possibilities of the material. It stands today. Sir Benjamin Baker built the Forth Bridge on an audacious cantilever system of construction. The list of nineteenth-century structural monuments can be expanded endlessly. Everywhere over the world, British engineers carried out major works in which structural science perfected itself, and was occasionally dignified by fine design.

In the design of steamships and railway engines, by their nature things of balance and models of efficiency, a new art was brought into being. Then finally, with the application of newer sciences to transport, came motor cars and aeroplanes, for the later developments of which our admiration is unbounded, and is for the first time perhaps increased by the realization that an element of conscious design is responsible for a measure of our delight.

These engineers used their materials without reference to anything that had been done before, there being no points of contact between materials built up from the earth heavily, and their own rigidly braced space-defying members. When they provided the framework for an architect's building they did what they were told, and willingly carried whatever loads were demanded of them in any way that might be required. But left to themselves they built as economically as possible, and were, therefore, given all the work involving cheapness, lightness and daring. "Engineers provide the construction, architects the frills," became a catch phrase with a deal of truth in it.

The discovery of reinforced concrete drove the last nail in the coffin of the architecture of conservatism.

François Hennebique erected his first small reinforced building in about 1892, and this date marks a turning point: it was the birthday of a new architecture.

What is modern architecture but the conscious employment of these new materials which industry has given us for their uttermost economy? It is a great deal more than this, for, directed by men like Le Corbusier to find beauty in modern machines and structures, we do indeed find it; and our eyes are opened to a brave new world, the work of our hands, and of this age we live in. To the architect labouring in the hopeless ruck of abortive revivalism, the realization that all structure is architecture comes as a relief from mental servitude. He is free at last to build logically and truthfully, designing the structure of his building instead of adapting structure to fit the needs of style.

It is a freedom conditioned by the absolute necessity for economy and efficiency, but drawing strength from these restrictions rather than regarding them, as in the past, as impediments to fine design.

It requires of architects that they deal fairly with their materials, using steel for its strength under tension and compression: using concrete for its resistance to pressure, its ability to be moulded and its power to combine with steel; using glass as it should be used, in large sheets instead of small; using metal for its various properties, and all materials for what they have in them to offer.

It further requires that if these things are done, the functions of buildings must be closely looked into, for how is it possible to use materials to economy if the plan is not economical, or if the desire for ornamentation or effect is stronger than the wish for efficiency?

Modern architecture is, as Le Corbusier has said, a product of *high selection*; in the words of the German architect, Bruno Taut, it is a high form of ultimate efficiency. The term "function," so often used in architectural discussion, is a sign of health. It shows that architects are recovering a long-lost power to serve the needs of society *exactly*, and with a zest for economy.

More than this, the need for enquiry into the motives of structure and design spreads further than building, or rather it enlarges the sphere of building to include everything that can be built and designed. Architecture is not enough, says the modern architect, my province is all structure.

Here, then, if the truth of the statement will be allowed, is a new creative force, broadly founded on structure, drawing deeply from the ancient sources of design through proportion, and sharing in and eager to serve the community of social service which is our salvation from the perplexities that surround us. How will it serve us?

By leading us first of all to the heart of the greatest problem that now confronts us, the towns. Garden city planning ran away from them; modern architecture by its very nature is concerned with them *wholly*, as organizations, as structures, as the subject matter of grand urban design, as providing the highest means of social service.

Modern architecture will provide buildings designed for ultimate efficiency and economy, whether they be flats or cottages, and these it will erect on a plan that is co-ordinated so as to provide economical services, and designed to offer, with the benefits of light and space, a sense of the grandeur of urban living. I realize that land must be paid for, and that congestion adds to the cost, and defies dislocation. No easy remedy is possible.

Yet if roads are narrow or twisted we shall have to widen and straighten them; and where buildings rot and people sicken, we shall have to rebuild. But, again, where to start and on what plan? What model of a town have we in our minds? What is its structure? How is it organized, served, dignified? Where does it end?

The immediate answer to this is best made in the form of an urban survey, so that we may know that it will be an economy to pull down or blow up this and that obstruction; to replace those areas of obsolete insanitary houses with something better; to guide railway development; segregate industry; allocate open space; and set a limit to the spoliation of the surrounding countryside.

Armed with this knowledge we should be sure of action and as sure of support from a community which we had educated so as to see a town as something worth living in.

The architecture which now forms itself out of the forces at war with each other in the evolution of the last century will be fit to control all building. In Germany it is the creative emotion of factories, houses, offices, even churches, alike. Before ever our trouble started, in the eighteenth century, we had one architecture that served for all purposes. We shall have another again.

Street Improvements

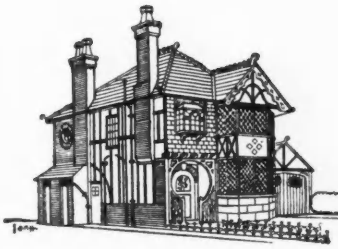
Lord Ashfield, speaking recently at the Royal Institution, made some suggestions for solving London traffic problems. He said:

Drastic improvements involving considerable rebuilding will have to be effected in the lay-out of streets if the true value of the "round-about system" of traffic control is to be obtained.

The ultimate solution of the traffic problem must include improvements in the streets themselves, making them fit for the traffic they have to carry.

Parliament alone can effect the remedy for traffic problems, and I suggest that the problem of street improvement should be considered without delay. There might be an authority taking the form of a Parliament for London to control and finance street improvements.

WHAT IS TO BE DONE ABOUT



THIS?

[*This is the third of a series of articles investigating contemporary speculative small house building practice, which, by virtue of the almost certain revival of building, especially of small house building, is of immediate importance. Briefly, the aim is to explain the why and wherefore of the present position and suggest means of improving it. Its predecessors discussed, respectively, the Speculative Builder and the Speculative Architect.*—Ed. *A. J.*]

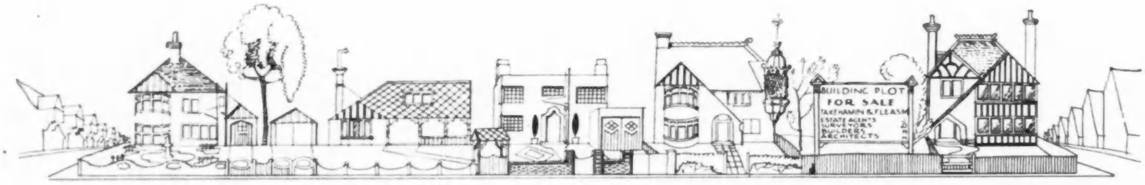
3. Building Without Guidance

[*By STANLEY C. RAMSEY*]

I BELIEVE it was Professor Reilly who, some twenty years ago, in a brilliantly unfair phrase, stigmatized Norman Shaw as "the Father of all the Jerry-Builders."

Today, there is no jerry-building worth speaking of; the building inspectors of the local authorities have seen to that. But if I wished to ascribe paternity to the designs of the modern speculative builder, I think I should point a kindly finger at the President for the time being of the Royal Institute of British Architects—in other words the most distinguished architect of his day—and I suggest that Sir Raymond Unwin, as the most distinguished housing architect of our day, is the common source from which architectural ideas, well and badly interpreted, are derived.

At the present time the most popular type of speculative builder's "design," is the semi-detached villa with double bay, under a gable decorated by three pieces of very thin timber. Out of five hundred houses, it would be quite easy to find five hundred bays with five hundred gables decorated with fifteen hundred pieces of sham half-timbering. Now if the genesis of that design is traced, I suggest its origin will be found in the Hampstead Garden Suburb, from whence it has travelled via Golders Green; it is the Golders



Green type getting progressively worse as it gets further from the source.

What was a simple cottage-inspired dwelling in the suburb is the aggressive little pink and white villa, that has crept all over the country.

With a few bright exceptions, the ordinary speculative builder works without any architectural guidance, and it might be instructive to seek out the reason, or rather the reasons for this. The speculative builder may be said to be a by-product of the Industrial Revolution—a revolution that sprang up in the coal-mining countries of north and central England, far away from the centres of traditional English culture.

The modern townsman today has inherited quite a different set of traditions from the dwellers in the countryside or the country town. The cottage-inspired dwelling leaves him cold. He may be able to appreciate the beauties of a group of thatched or half-timbered cottages, but, generally speaking, he does not wish to live in one—that is unless he has attained a certain degree of wealth and culture, when he may acquire one as a week-end toy—but, generally speaking, the shy, modest beauty of the cottage has no message for him, except perhaps :—

> " God bless the Squire and his relations
> And keep us in our proper stations."

He does not, in the ordinary sense, know the Squire, and if he did, the chances are that he wouldn't like him, and that he would positively detest his relations. His idea of his proper " station " is, more often than not, the little bay-windowed villa I have referred to, or perhaps, if he does live in the country, the little pebble-dashed isolated bungalow, covered with pink asbestos slates.

At present, as I have said, there is a vast field of building activity from which the architect is excluded—and yet a field where he is more urgently needed than in any other that I can think of.

Before the architect and the speculative builder can be brought together, there must be, I suggest, a much clearer and more sympathetic appreciation of the speculative builder's problems and difficulties than the majority of architects possess at present. To them the problem is only one of influencing the builder ; they are forgetful of the fact that the builder's main consideration is the public he has to sell to.

The speculative builder in this country fulfils a most useful and necessary function ; he, in effect, houses that great class which must be designated, for want of a better title, by the name of Middle Class, a class that owes its rise to industry and inhabits the suburbs and outskirts of our towns. It includes the better-paid Working Class, as well as the man who can afford a £1,500 detached or semi-detached villa, complete with garage and hot water system. But, however sympathetically one may view the activities of the speculative builder, one has to admit that, in the main, his standard of design is very poor. I am referring to his design of elevations, which is very much below his attainments as regards interiors. As far as elevations are concerned, he is hopelessly old-fashioned and out of date.

In his interior design there has been something like a revolution, accomplished in the last ten years. This may be due to a variety of causes, but it has been chiefly caused by the demands of the modern housewife, and her desire for a clean, labour-saving, up-to-date house. In the great majority of these ready-made houses there is an absence of fuss, and a clean, straightforward way of doing things, that could teach many an architect a lesson.

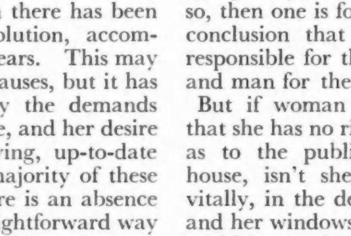
The much moulded cornice to living-rooms has given place to a simple cove. Fireplaces have become simple tile surrounds, easy to clean and pleasant to look upon, doors and door furniture have become much simpler. It is only when we get to the exterior that we revert to all the old-fashioned dodges—sham half-timber that peels off and requires unnecessary painting ; pebble-dashed rough-cast, which is neither so effective as a weather-resister nor so satisfactory to look upon as self-coloured Portland cement put on with a smooth finish ; windows and doors that are a riot of unnecessary mouldings, dirt catching and ineffective ; simple roofs that are spoilt by the intrusion of gables without meaning, the presence of which provides equally unnecessary valley gutters, a further cause of expense and deterioration.

Now, why is there this divergence ? Why should these well-built, conveniently planned, sensibly equipped, and as far as the interiors go, pleasantly devised houses, be covered in these out-of-date exteriors ? I believe the secret is largely in the influence exerted by the writers of the *Home Notes* in the daily press, and the effect that these writers have had on their women readers.

Unfortunately the interest of these talented and well-informed writers never seems to extend beyond the interior and the furnishing. Perhaps they think the proper sphere of woman does not go beyond the interior. If this is so, then one is forced to the unpleasant conclusion that it is woman who is responsible for these pleasant interiors, and man for these repulsive exteriors !

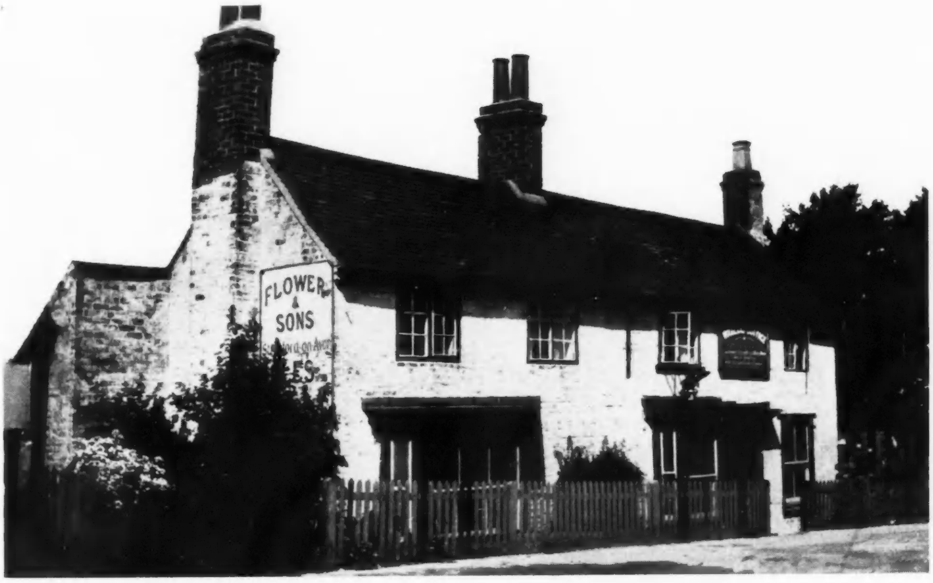
But if woman in her modesty feels that she has no right to offer an opinion as to the public appearance of her house, isn't she interested, and that vitally, in the design of her front door and her windows ? And if these fittings could be standardized on pleasant lines, this would be a most important step in the direction of improved exteriors.

At present we are working in a vicious circle. There is, I feel sure, a large public who would welcome a house of improved design, and there are, on the other hand, a great many speculative builders who would be only too glad to offer the public something better. But, unfortunately, the enlightened public would only appear to meet with the more old-fashioned type of builder and the more advanced builder with the more conservative type of house-purchaser ; so, as the series title at the head of this article puts it, " What is to be done about this ? "



" Plus a little something."

THE WOODLAND COTTAGE INN, REDDITCH


FLOWER & SONS
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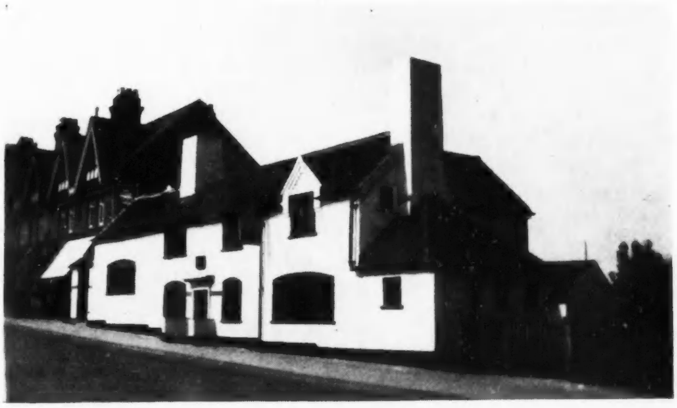
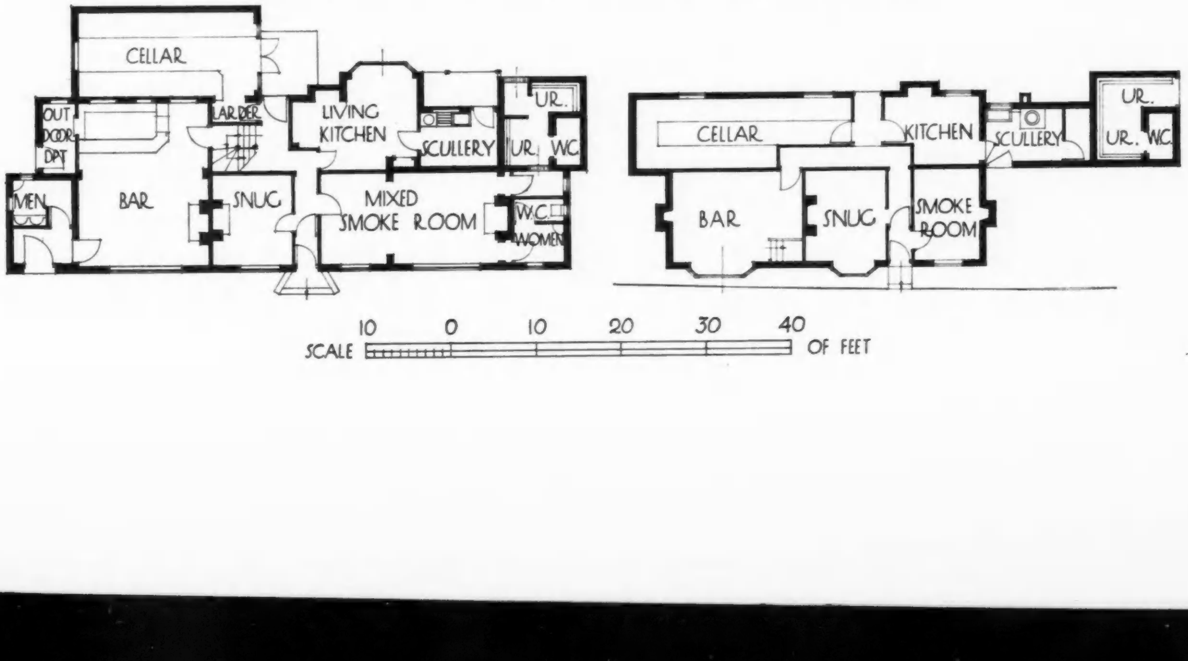
REBUILT FROM DESIGNS



BY FRANCIS W. B. YORKE

This Inn is situated on a Worcester main road, recently widened as part of an extensive road-widening scheme, and in order to gain the maximum road width at this point, where the old building stood in front of the building line, it was necessary to sacrifice the bay windows and the front garden. As certain structural and restoration work had to be undertaken, it was considered opportune to enlarge the Inn and improve the general state of its repair. The plans below show its condition after and before reconstruction.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SCALE OF FEET

LETTERS FROM READERS

ARTHUR WELFORD, A.R.I.B.A.

C. M.

S. D. LOWETH, F.R.I.B.A.

L. J. REDGRAVE CRIPPS, L.R.I.B.A.

Financing Public Works

SIR,—I should like to reply to your leader writer.

(*a*) He argues, not from the point of view of the taxpayer and consumer, but from the point of view of the credit financier, which is always directed towards obtaining a mortgage on real things, the more permanent the better. But credit finance has become divorced from reality, that is to say it is not based on the national capacity to produce and to consume goods and services, but it relates only to itself and it controls industry in its own interest. This it does by means of a system of fictitious debt.

(*b*) The money, presumably, will be created by credit finance—i.e., the banks—in the usual way, by giving the borrower a cheque book in exchange for a promise to pay, and by entering the figures of the imaginary loan as an addition on both sides of its ledger.

It will cost the banks nothing but the paper and ink, and it will not come out of deposits; it will add to deposits (*vide* McKenna). The public cannot use the £1,956,700 of deposits of which your leader writer speaks, it is already a debt to banks, whether on their own account for the purchase of Government and other securities or as private or public loans makes no difference. Any fresh loan will create a fresh deposit (*vide* McKenna).

(*c*) The word inflation is generally understood; it is now camouflaged as reflation. Any issue of new money, either as a bank loan or a purchase of securities by a bank, without a simultaneous creation of goods for sale or without a corresponding withdrawal and destruction of previous loans is inflation, and sends up the price of goods. That is not disputed by the most orthodox of economists. In such a case new loans are inflationary; purchasing power is not increased, but debt is.

"The proof of the pudding is in the eating." Can your leader writer explain how the implementing of his quite orthodox proposals is going to develop any differently to all credit-debt schemes which have gone before, and how it will help to rectify a system which has produced, and must mathematically produce, a situation of starvation in the midst of plenty?

ARTHUR WELFORD

[We submitted the above letter to our leader writer, who has sent us the following reply.]

After writing a number of articles in which the chief points stressed were the increase in purchasing power and the relief to the Budget arising from an energetic policy of public works, it is rather surprising to learn that I have not been arguing "from the point of view of the taxpayer and consumer."

The public has hundreds of millions in the banks which are not being used in industry. This is not because the money cannot *be used, but because, under present conditions, the public* will not *use it. If a loan were raised for public works, the response on the part of the public would probably be as great as was the response to the Conversion Loan issue. Thus money now on deposit would find its way into circulation, to the general benefit of industry.*

Money or credit, therefore, need not be created; we have enough already. The deposits in the banks are, overwhelmingly, debts due, not to the banks by the public, but to the public by the banks. Advances are only about 40 per cent. of deposits. Further, the mere fact of raising a loan will not add to deposits. It is the spending of the loan and its beneficial effects in increasing purchasing power which is reflected in increased deposits in so far as individuals and trading companies need to keep more cash on deposit. And, by the way, I know of no bank—and I wonder if anyone else does—which, "in the usual way," makes a loan by giving the borrower "a cheque book in exchange for a promise to pay" *without security.*

In so far as prices would rise, the effects of such a policy would be inflationary. But the whole point of the policy is that the loan is not merely inflationary—its effects are not exhausted in raising prices—but that production and investment will increase. Prices will probably rise somewhat, but it is quite absurd to seek to argue that that would be the sole effect of the loan. No competent economist, orthodox or not, would accept such an argument. And to say that purchasing power would not be increased is just not true.

The effects of a loan will only be exhausted in raising prices if labour and capital are in full employment. In so far, therefore, as unemployment, particularly in building and public works, is greater than it was before when public works were put in hand, a policy of loan expenditure will be more effective than it was then in providing employment and increasing production. Further, as Mr. Keynes has pointed out, the position of the foreign balance was such, in previous years, that the increased employment due to public works programmes was more than counterbalanced by unemployment due to the deterioration of the foreign balance.

Today, that is not the case. The foreign balance is improving.

YOUR LEADER WRITER

"Olde-Moderne Ideals"

SIR,—I read Mr. Gloag's article in your last issue on "Olde-Moderne Ideals" with pleasure and amusement. It is always pleasing to see Mr. Gloag thumping and walloping the uneducated, but I do not feel quite satisfied.

It is no permanent cure for a fungus growth (such as Jerriarchy, to use Mr. Gloag's own expressive word) to whack at the visible growth with a stick; one must look further and endeavour to find out on what the growth feeds, flourishes and grows, and either destroy or alter the character of the soil.

What then does Jerriarchy grow upon? There are two obvious answers, both of them in part true and both of them equally difficult to deal with.

In the first place there is the speculative builder himself; but it is almost impossible to deal with him. Certainly it cannot be done by fulminating in architectural papers. What does he care for architects and their views? He has no use for either.

Secondly, it is said with justice that the public have only themselves to blame, and that this hideous growth is due to their ignorance and apathy, and that the cure is ceaselessly to attack, cudgel and educate them.

But it is well-nigh impossible to attack the public on such a subject; it is far too amorphous a body. You cannot seriously harm a jellyfish by smacking it on top.

The history of the past hundred years has shown that the education of the public in art and taste is a very slow process, while the expansion and growth of Jerriarchy, by its very nature, is a most rapid process.

It seems to me, however, that there is a third answer to the question—look to the building societies. Without the assistance of the societies ninety per cent. of our Jerriarchy houses and suburbs could be neither built, sold nor let. These societies have grown to be a gigantic power in the State. They are said to have done much good; they have certainly done, from the æsthetic point of view, almost irreparable harm. They have financed and are daily financing every conceivable kind of architectural horror and absurdity, recking nothing so long as the houses will stand during the odd 15 or 20 years of the mortgage.

They say they are creating a happy home-owning middle class. In fact they are immobilising vast numbers of people, fixing them down in hideous and often badly-built houses, which in twenty years' time may well be unsaleable and will certainly require very heavy repairs. These people will find, and are indeed finding, increasing difficulty in disposing of their rapidly-deteriorating and heavily-mortgaged houses.

Thus we see the creation of the slums of the future. Our present slum houses are appalling enough now, but they were originally reasonably well built, else they would not have lasted the time they have; but what some of the houses we see going up daily will look like in fifty or a hundred years' time one trembles to think.

If the building societies would rigidly set their faces against financing these horrors, hideously designed and often abominably built, Jerriarchy would cease to grow in a year—and if the societies would act together and let the speculative builder know the line they were going to take they could settle the problem in a year.

Cease, therefore, to waste time and ink on the builder and the public, but impress on the building societies their responsibility in the matter of good taste and good building.

I like Mr. Edwin Gunn's suggestions. Now is his chance. Get together, you group of architects, and go and see the building societies on the whole question, and get them to finance a model building estate.

C. M.

Information Sheets

SIR,—I should like to congratulate you upon the idea of publishing these sheets of technical information. They are most useful, and to my knowledge are being filed for reference in several architects' offices.

I would mention that in sheets Nos. 3 and 3A, by Messrs. Burnet, Tait and Lorne, and by Mr. W. C. B. Smith, the basis of their information appears to be the building regulations of the Board of Education as published in 1914 and reprinted in 1924.

I should like to add that this Authority has now officially approved of a number of deviations from these Regulations. For instance, they permit a classroom with a flat ceiling of 10 ft. in height, provided there is adequate "cross ventilation," thus making a big saving in cube for the whole building. Also the numbers of closets is allowed to be reduced on the tables shown.

It would be an advantage if the plans of classrooms showed the projections of the piers on each side, as this somewhat upsets the careful spacing of the desks, as the gangways next these must be wider than those between.

It is found in practice that the width of classroom should not be more than 20 ft., in order that light may penetrate to the corridor side. Large borrowed lights should also be shown and windows on the external walls next the teaching space.

The Board of Education has, since the reprinting of the 1914 regulations, published several pamphlets suggesting modifications in school buildings, in order to economize in the cost per place, and I suggest that these should always be studied in conjunction with the original regulations if up-to-date information is required for school buildings.

S. D. LOWETH

A Woman's Ideal Home

SIR,—I trust that, with your usual fairness, you will allow me a short space to reply to Mr. Goddard's criticism of my plans, especially as most of his statements are incorrect.

It is an old dodge, especially in politics, for "honourable gentlemen" first to misrepresent their opponents and then, on the strength of this misrepresentation, to seek to discredit them. I am surprised, however, that your correspondent, Mr. A. N. Goddard, should have descended to these tactics in order just to "score a point" off me regarding my plans for an ideal home which I submitted as an alternative to those of Miss Elizabeth Craig.

With the exception of Mr. Goddard's assertion that "*Miss Elizabeth Craig is an expert cook*" (which fact I have never questioned) his whole criticism of my alternative plans is a deliberate misrepresentation.

Thus, it is not true that there is a step at each door in the entrance lobby. On the contrary, the lavatory, the lobby, and the cloaks are all on exactly the same floor level.

It is not true that the conservatory materially obstructs the sun's rays from the sun lounge. As shown by my plans, this lounge is a veritable sun lounge and has windows on *three* sides. The conservatory is on the S.E. side, but the *main* windows are on the S.W. side.

Mr. Goddard quotes me as using the expression "*idealism and attention to detail.*" I have never used this expression.

Neither is it true that the large private store I specially provided adjacent to the dining room is just "*an accident of planning.*" I might as well suggest that it is an "accident" that Mr. Goddard has taken up the cudgels on behalf of a lady "expert cook."

It is interesting to note that in the same issue of THE ARCHITECTS' JOURNAL as contains Mr. Goddard's letter there is an article on "*this year's building stunt at Olympia*" and "*the experts in selling who are 'putting over' these ramshacklements to the P.B.P. (Poor —ahem!—Public.)*" My original letter was in protest against the lady "expert cook" trying to "put over" her ramshacklement to the long suffering P.B.P. I admit I never contemplated that a fellow member of the R.I.B.A. would rush into print on behalf of this lady "expert."

L. J. REDGRAVE CRIPPS

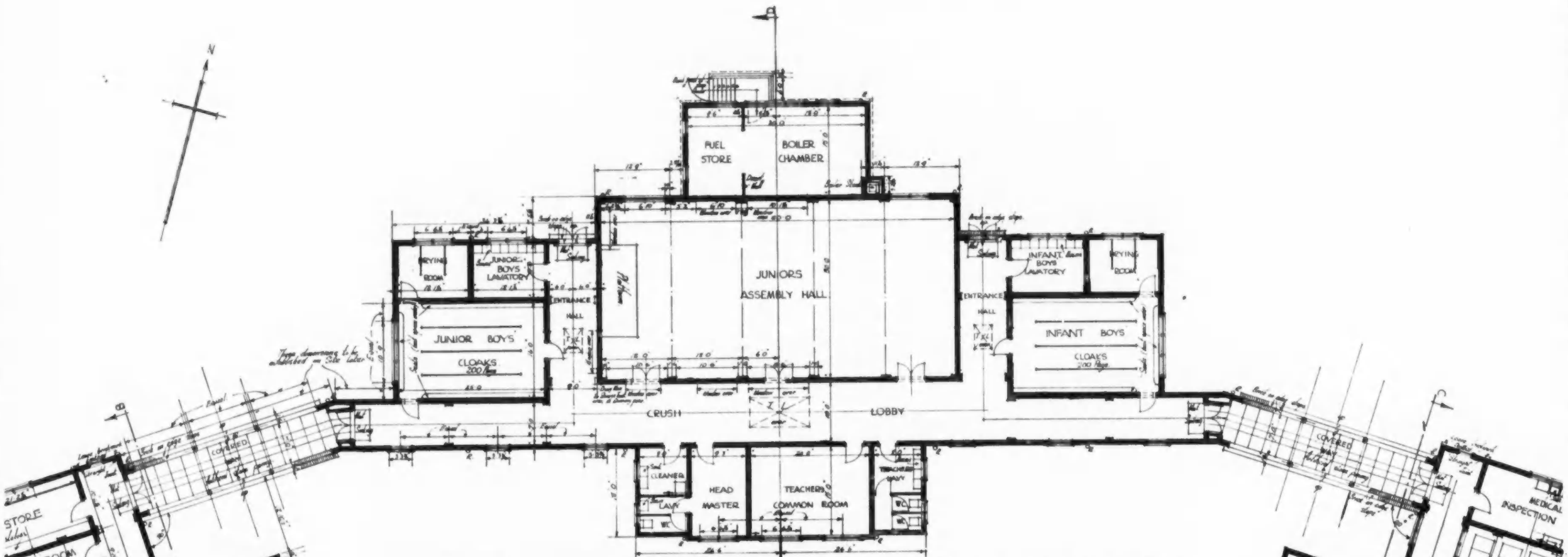
Acoustic Construction

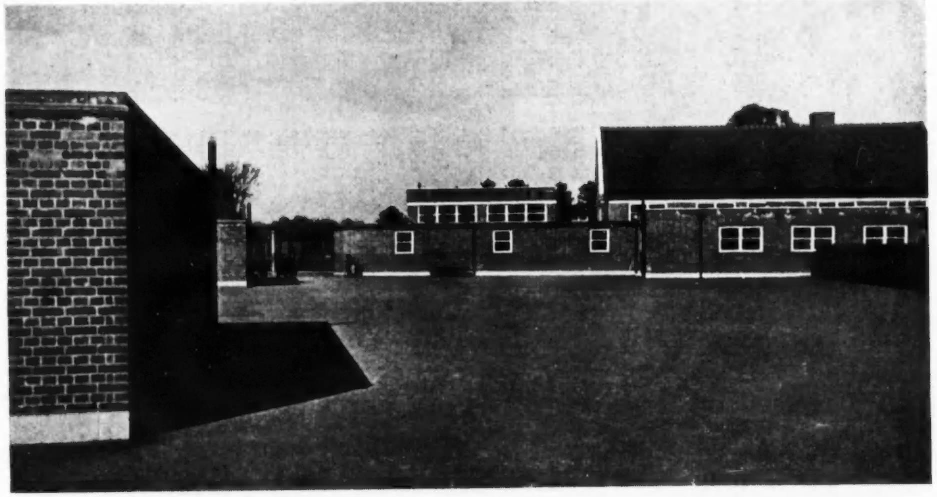
A course of lectures on "Acoustic Construction" will be given by Mr. C. W. Glover, A.M.INST.C.E., L.R.I.B.A., at the Polytechnic, Regent Street, W.1, on Tuesday evenings at 7.30 p.m., beginning on May 9. Full particulars of the course are obtainable from Mr. G. A. Mitchell, F.R.I.B.A., the Head of the School.

Change of Address

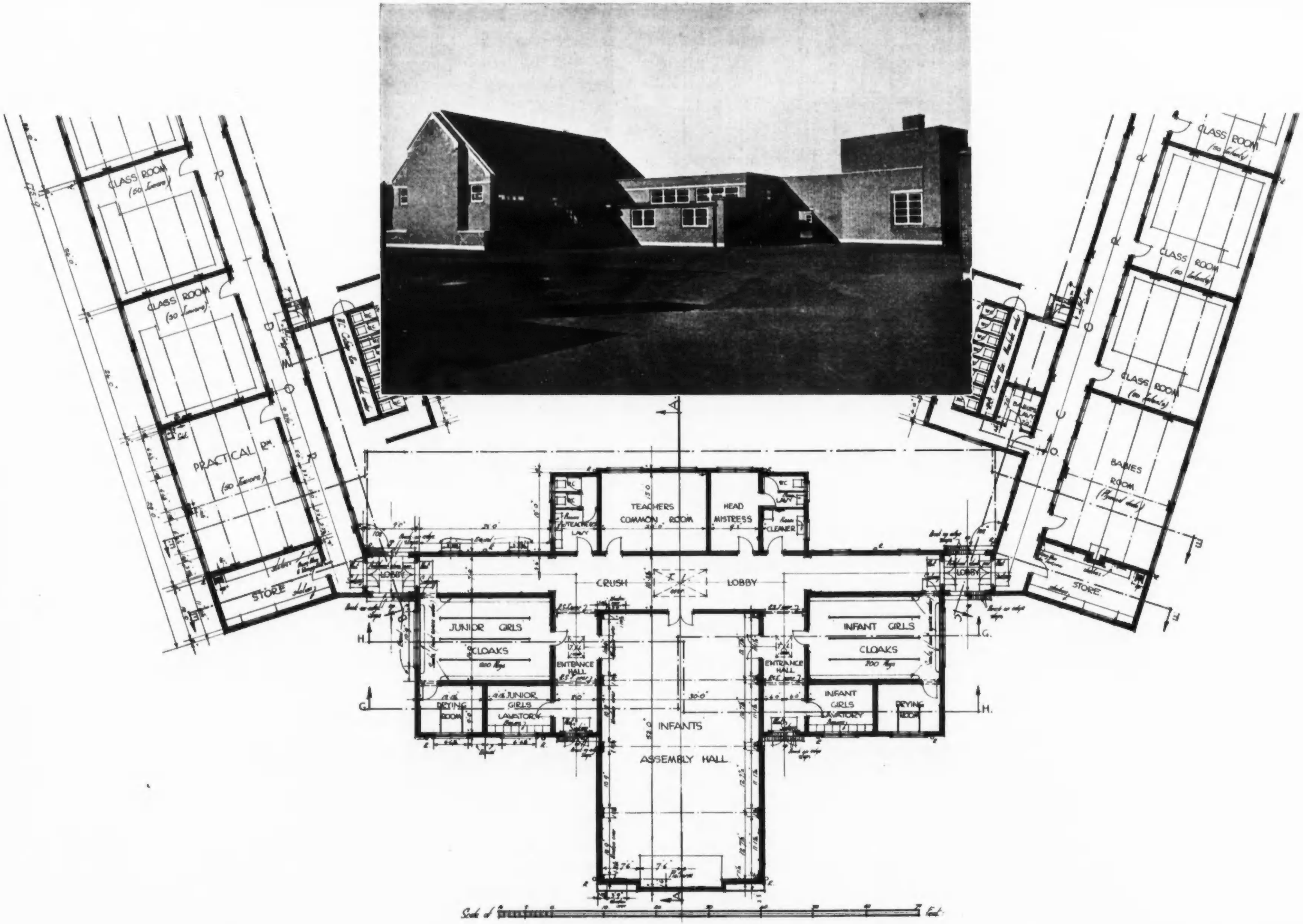
Messrs. J. S. Gibson and Gordon have taken into partnership Mr. H. B. Kebel Smith, A.R.I.B.A., and the practice will in future be carried on at 2 Devonshire Terrace, Marylebone Road, W.1, under the name of J. S. Gibson, Gordon and Kebel Smith.

SCHOOL AT MAIDENHEAD : BY LEATHART AND GRANGER


N
FUEL STORE
BOILER CHAMBER
JUNIORS ASSEMBLY HALL
Platform
DRYING ROOM
JUNIOR BOYS LAVATORY
JUNIOR BOYS CLOAKS 200 Pegs
ENTRANCE HALL
INFANT BOYS LAVATORY
DRYING ROOM
INFANT BOYS CLOAKS 200 Pegs
CRUSH
LOBBY
CLEANER
LAVY
HEAD MASTER
TEACHERS COMMON ROOM
TEACHERS LAVY
COVERED WAY
STORE
CLASS ROOM (50 Juniors)
CLASS ROOM (50 Juniors)
CLASS ROOM (50 Juniors)
URINALS
URINALS
MEDICAL INSPECTION
CLASS ROOM (50 Infants)
CLASS ROOM (50 Infants)



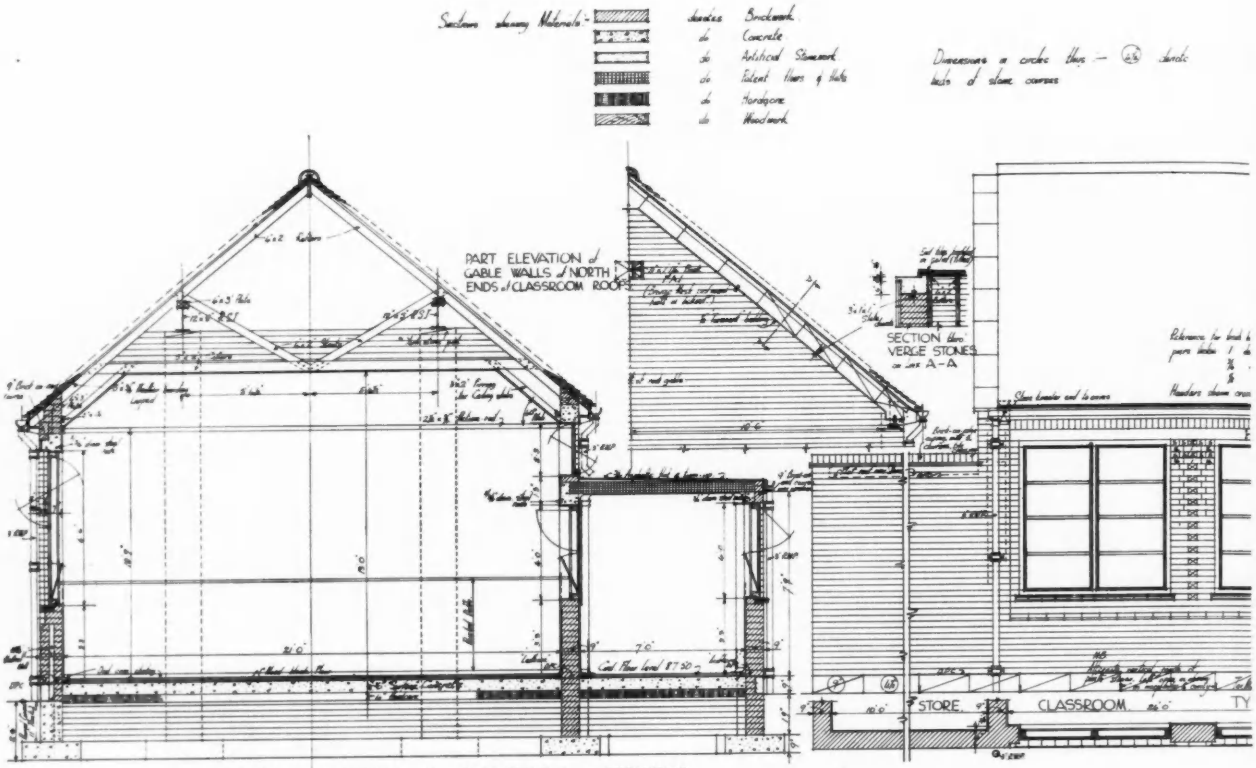
Looking north, from inside the enclosure: the Juniors' Drill Ground and Assembly Hall


CLASS ROOM (50 ...)
CLASS ROOM (50 ...)
PRACTICAL Rm. (50 ...)
STORE
LOBBY
JUNIOR GIRLS CLOAKS
DRYING ROOM
JUNIOR GIRLS LAVATORY
ENTRANCE HALL
TEACHERS COMMON ROOM
TEACHERS LAV
HEAD MISTRESS
CLEANER
LAV
CRUSH
LOBBY
INFANTS ASSEMBLY HALL
30'-0"
INFANT GIRLS CLOAKS
INFANT GIRLS LAVATORY
DRYING ROOM
CLASS ROOM
CLASS ROOM
CLASS ROOM
BABIES ROOM
STORE
A
E
F
G
H
Scale of Feet

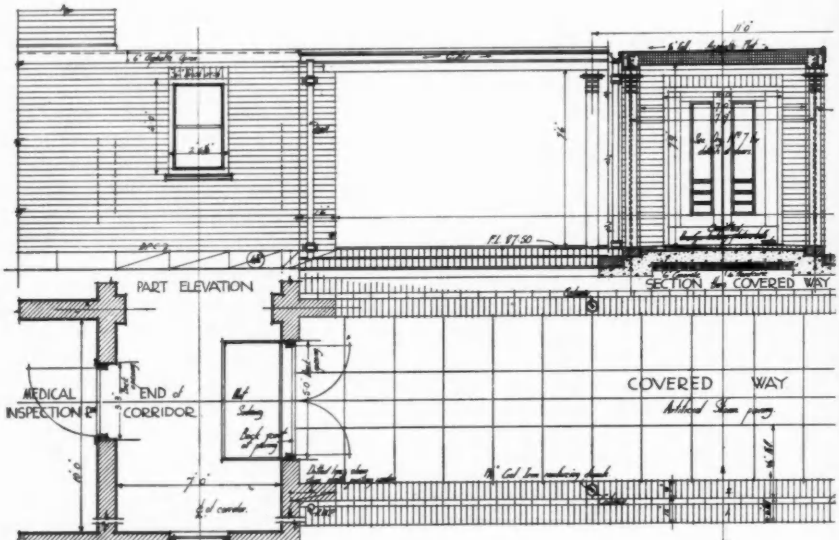
Looking north-west, from outside the enclosure: the Infants' Assembly Hall

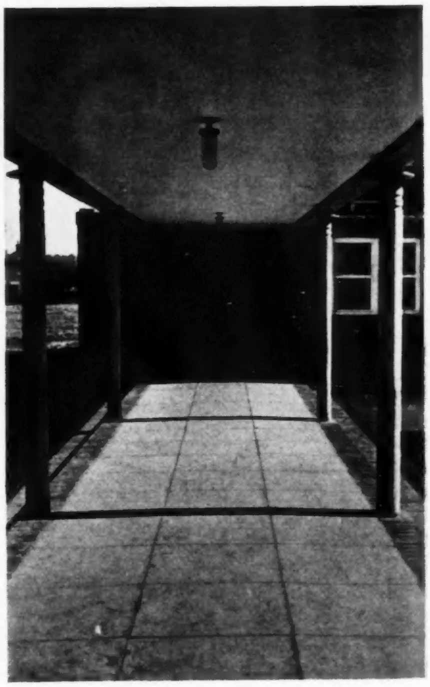
[For other illustrations, and notes, see overleaf.

SCHOOL AT MAIDENHEAD: B Y

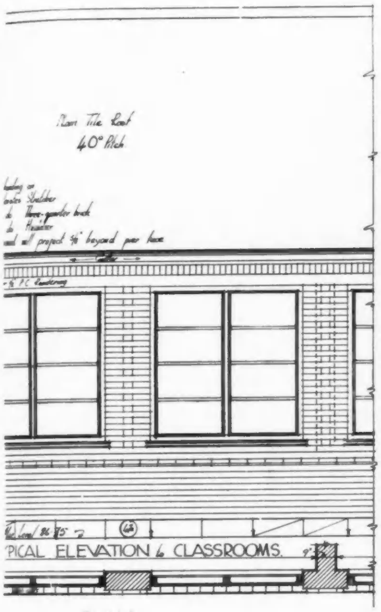

Sections showing Materials:- denotes Brickwork
do Concrete
do Artificial Stonework
do Patent floors & Halls
do Hardcore
do Woodwork
Dimensions in circles thus :- denote beds of stone courses
PART ELEVATION of GABLE WALLS of NORTH ENDS of CLASSROOM ROOF
SECTION thro' VERGE STONES on line A-A
STORE
CLASSROOM
TYPICAL

TYPICAL SECTION thro. CLASSROOM & CORRIDOR

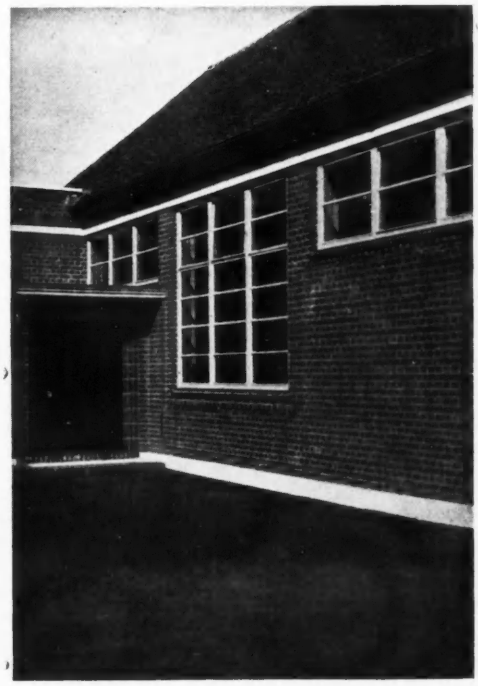

PART ELEVATION
SECTION thro COVERED WAY
MEDICAL INSPECTION Rm
END of CORRIDOR
COVERED WAY
Artificial Stone paving
PLAN
SCALE of FEET.

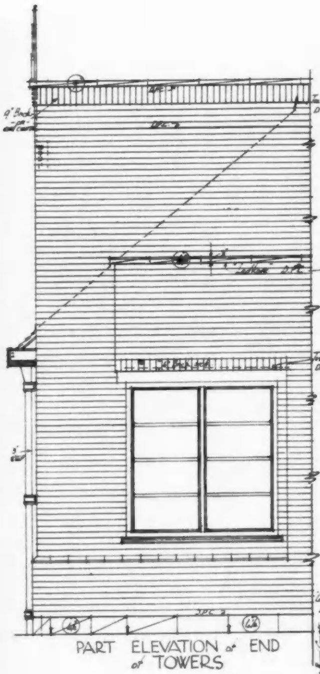


: BY LEATHART AND GRANGER

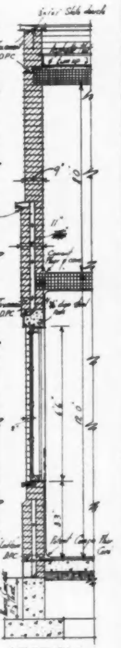

Plain Tile Roof
40° Pitch
TYPICAL ELEVATION to CLASSROOMS

PLAN.



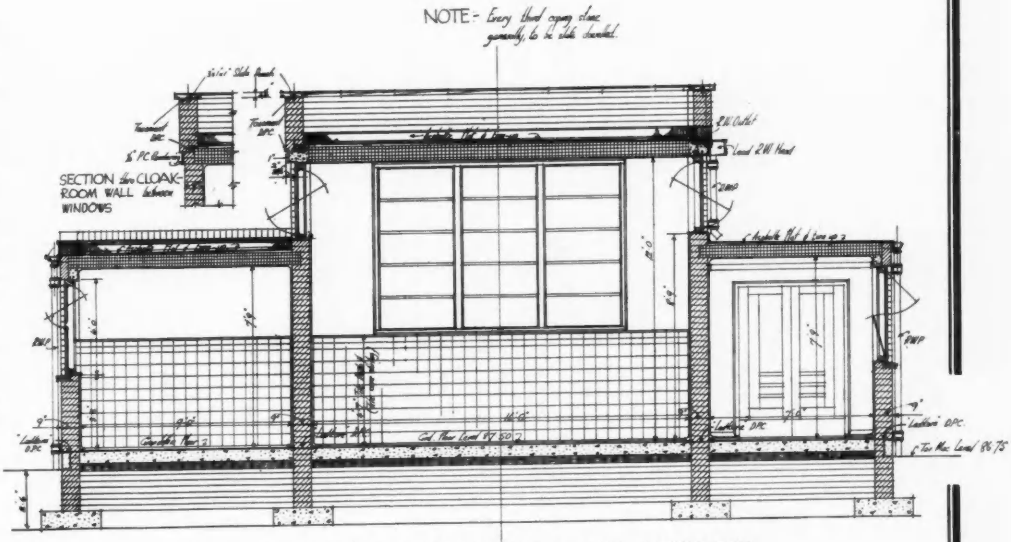


PART ELEVATION of END of TOWERS



SECTION.

The shape of the plan (reproduced in the preceding opening) is dictated by the shape of the site and by the aspects for the classroom ranges, which run somewhat south of east and somewhat south of west. The school is divided into two sections, one for mixed juniors, and the other for mixed infants. The fence that divides the enclosure formed by the buildings into two drill grounds appears in the view on page 498. The entrances, cloakrooms, lavatories and assembly halls are duplicated for each division of the school. Some of these details figure in the drawings reproduced on these two pages; the accompanying photographs show a covered way and a typical entrance doorway. At the north end of the site space has been left for future extension of the classrooms at some future date.


NOTE:- Every third opening clear generally to be slide...
SECTION thro CLOAK-ROOM WALL between WINDOWS
RWP

TYPICAL SECTION thro CLOAKROOMS, DRYING RMS & CORRIDOR
(Lavatories similar to Drying Rms. but with Quarry Tile floors)

Lieut.-Col. E. H. Fawckner, the new chairman of the South Wales Institute of Architects. He occupied the same position in 1907-1908.

SOCIETIES AND INSTITUTIONS

SOUTH WALES INSTITUTE OF ARCHITECTS

The following have been elected officers of the above Institute for the forthcoming session :

President : Lieut.-Col. E. H. Fawckner, F.R.I.B.A. ; vice-presidents : Messrs. J. Herbert Jones, F.R.I.B.A., and W. S. Purchon, A.R.I.B.A. ; hon. treasurer : Mr. H. Teather, F.R.I.B.A. ; hon. auditor : Mr. J. A. Hallam ; hon. librarian : Mr. Lewis John, A.R.I.B.A. ; hon. secretary : Mr. Ivor P. Jones, A.R.I.B.A.

CAMBRIDGE ARCHITECTS' MEETING

At the annual meeting of the Cambridge Chapter of the Essex, Cambridge and Hertfordshire Society of Architects the following officers were elected :—

Chairman, Mr. Theodore Fyfe, M.A., F.R.I.B.A.; vice-chairman, Mr. N. T. Myers, F.R.I.B.A. ; hon. secretary, Mr. Norman Hurst, P.A.S.I. ; hon. treasurer, Mr. I. T. Sifton, A.R.I.B.A. ; executive committee, Messrs. Bland, Hughes, H. H. Parker, Tomlinson and Burdett Wood.

A NATIONAL SURVEY

At the last meeting of the Council of the Royal Incorporation of Architects in Scotland, held at Edinburgh, it was decided to co-operate with the Scottish branch of the Town Planning Institute in advocating in Government circles the desirability of having a national development plan and survey prepared for Scotland in the interests of the sound and economic development of the country as regards town and country planning and amenity in addition to transport, industry and agriculture.

The following members were elected :

Fellows : Messrs. D. Ross, D. Smith and James M'Nab, Glasgow. Associates : Messrs. D. G. Watson, M. J. H. Cowie, H. K. Macdonald, W. M. Wilson, E. J. Weir, Alfred I. Greig, W. T. Sutherland, G. J. Munro, and H. N. Paterson.

CRUISE-TOUR TO SOUTHERN SPAIN

The Association of Architects, Surveyors and Technical Assistants has arranged a cruise-tour to Gibraltar and Southern Spain from August 25 to September 8, 1933. The party will leave London by the s.s. " Maloja " (21,000 tons), arriving at Gibraltar on August 29, motoring along the Atlantic seaboard to Cadiz, thence to Seville (one day's stay), Cordoba (half day), Granada (one day) and Malaga, i.e., through the Sierra Nevada district, and thence along the Mediterranean seaboard back to Gibraltar, a total of 570 miles' drive. The return journey will be made from Gibraltar in the s.s. " Mooltan."

The itinerary has been selected to include some of the best Roman, Mediæval, Moorish and Renaissance architecture of Spain. If 24 persons join this party the cost will be £20 each inclusive. Further particulars will be sent on application to the Secretary, A.A.S.T.A., 26, Buckingham Gate, S.W.1.

TRADE SOCIETIES

Sir Francis Goodenough has accepted the Presidency of the National Association of Trade Protection Societies in succession to Lord Meston, who is retiring after serving in this capacity for three years.

LAW REPORT

ARCHITECTS' CLAIM

Dollar and Others v. *Harrison.—King and Another* v. *The Same.—King's Bench Division. Before Mr. Justice Swift*

THESE were consolidated actions and arose out of the conversion of some residential property in Gloucester Square into flats and the claims by the plaintiffs were for fees for work done as architects and surveyors.

The plaintiffs were Mr. Peter Dollar, Messrs. Messer and Hamblin (trading as Tubbs and Messer), Mr. H. E. King and Mr. R. W. Thomas (trading as Fleetwood Everson and King). The defendant was Mr. H. Harrison, Australia House, Strand.

Mr. Beyfus, K.C., was leading counsel for the plaintiffs, and Mr. S. Mayer, K.C., for the defendant.

Plaintiffs' case was that by an arrangement made in 1924 between Mr. Dollar and Messrs. Messer and Hamblin, and the defendant, they were to prepare the plans and bills of quantities, etc., for conversion of the property, but that after a great deal of work had been done, it was found that another architect was acting for defendant, and plaintiffs were not paid their fees.

The defence was a denial that any definite arrangement was come to in the matter and in the alternative that any arrangement, if made, was conditional on defendant's acquiring the premises, which he never did. In fact, the property was bought by another person.

Mr. Mayer submitted that there was no evidence before the Court of any contract by his client.

Mr. Llewellyn (who was with Mr. Beyfus) argued that there was ample evidence of a contract by the defendant, supported by the correspondence.

His lordship held that there was no personal contract with the defendant and he gave judgment for the defendant with costs. In his lordship's view the earlier transactions between Mr. Dollar and the defendant were barred by the statute of limitations. At the same time he did not think that the defendant intended to bind himself personally, but that he and Mr. Dollar had in mind the forming of a company in which company he was to be employed as architect and be paid on the basis of 5 per cent. for work done. In July, 1925, however, a company called the Gloucester Square Flats was formed and they acquired 25, 27 and 28 Gloucester Square. In his lordship's view Mr. Dollar knew that Mr. Harrison was not personally responsible, but was only acting as solicitor for clients. Under the circumstances there must be judgment for the defendant with costs.

QUESTIONS THAT ARISE

Dampness in Walls

¶ W. E. A. writes : " *I should be glad if your expert would make any suggestions upon the following problem.*

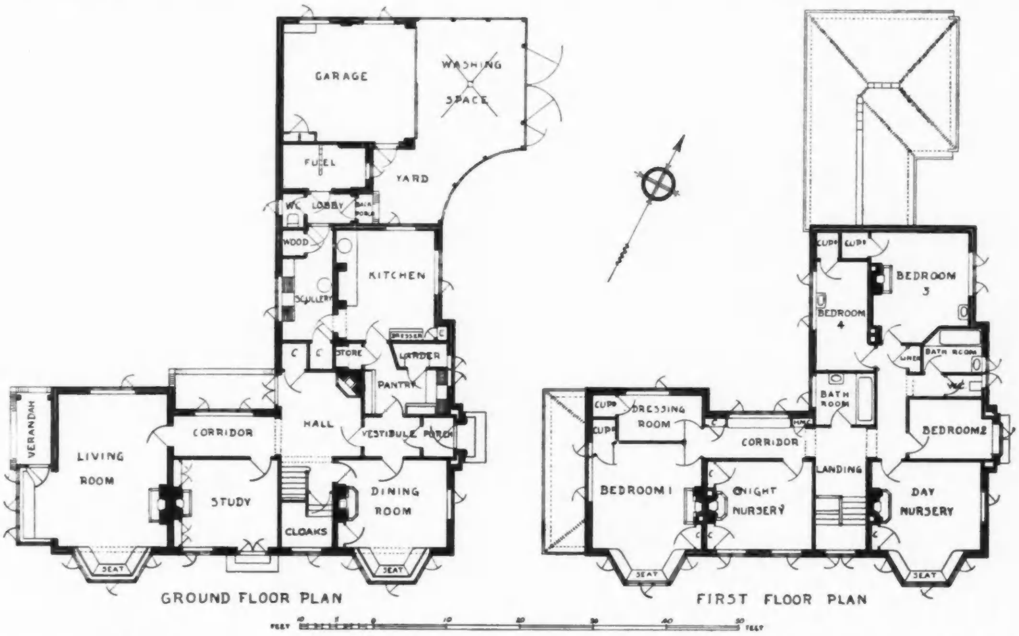
" *I am designing a church in Wales which is in a very exposed position, and, besides being in strong sunlight, will also have to withstand exceedingly heavy rainfall and strong winds, which will tend to blow the rain through the walls. The walls will be built in local random rubble stone work, set in Aberthaw hydrolic lime mortar composed of one of lime to three of sand, and the pointing will be executed at the completion of the work : all joints being raked out and then pointed. The walls average in thickness from 1 ft. 6 ins. to 2 ft. 9 ins., the majority being 2 ft.*

" *The interior is finished with a special plaster and has for the rendering a coat of cement to two of sand, gauged with an integral waterproofing liquid. The damp course is a double course of slates in waterproof cement, while the concrete bed of the flooring is also similiarly treated.*

" *The problem I am facing is the possibility of wet being driven through these comparatively thin walls and rendering the church damp internally.*

" *I should be glad if you could suggest any further method which would aid in keeping this building perfectly dry, beyond those I have mentioned, particularly any*

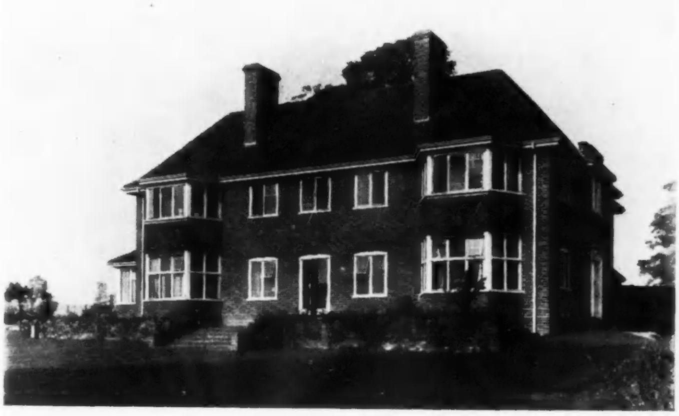
A HOUSE AT CAVERSHAM


GARAGE
WASHING SPACE
FUEL
YARD
WC
LOBBY
WOOD
SCULLERY
KITCHEN
DRESSER
LARDER
STORE
C
C
PANTRY
HALL
VESTIBULE
PORCH
CORRIDOR
VERANDAH
LIVING ROOM
STUDY
DINING ROOM
CLOAKS
SEAT
SEAT
GROUND FLOOR PLAN
CUPD
CUPD
BEDROOM 3
BEDROOM 4
LINEN
BATH ROOM
W.C.
DRESSING ROOM
CORRIDOR
BATH ROOM
LANDING
BEDROOM 2
BEDROOM 1
NIGHT NURSERY
DAY NURSERY
SEAT
SEAT
FIRST FLOOR PLAN
FEET
FEET

DESIGNED BY C. BIRDWOOD WILLCOCKS

The external walls of this house at Caversham, Reading, Berks., are faced with hand-made sand-faced deep red multi-coloured bricks; and the roofs are covered with hand-made sand-faced tiles. The floors of the principal ground floor rooms are laid with wood blocks; and the internal woodwork is stained dark brown.

The staircase is an interesting feature of the house, the balustrade being plastered between the string and hand-rail. On the caps of the newels are different animals—a rabbit, owl, squirrel and hawk—carved by Miss Wilson, of Reading University.



materials which could be incorporated in the lime mortar to render it more waterproof, as it seems that this will give the means of ingress of the dampness."

From the question it is assumed that the stone used is known to be non-porous, since attention is being concentrated at the joints. In these circumstances it may happen that internal dampness from condensation may defeat successful efforts to avert penetration of the walls by driven rain. Would it be possible to build the walls with an inner facing 4½ ins. thick of porous brick, built into a cavity grouted in with White's "Hygeian Rock" composition adhering both to brick backing and stone facing? Such a wall, if plastered internally with ordinary porous lime plastic, finished with a grit finish from a wood float, ought to be proof against both external penetration and internal condensation.

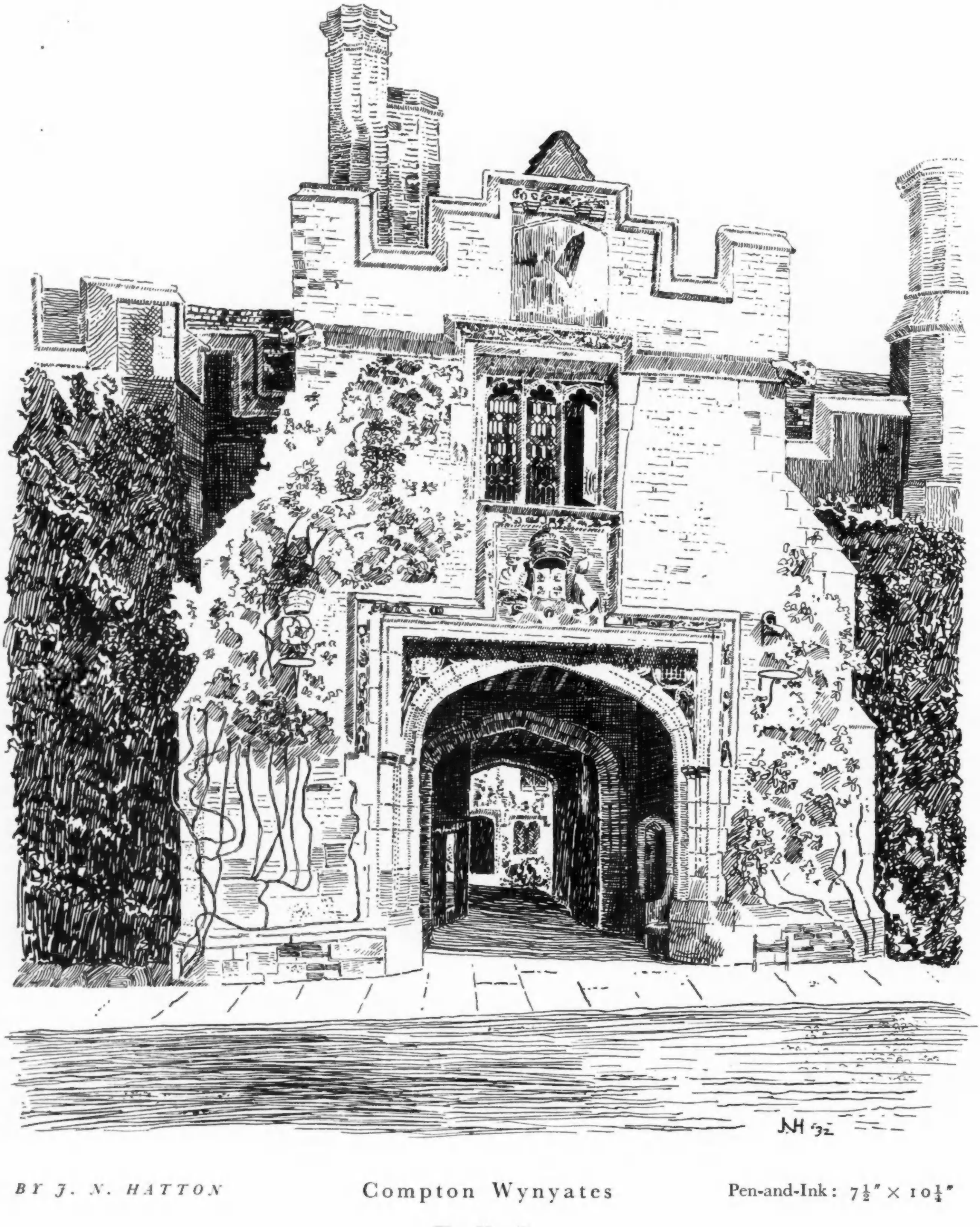
It is quite possible that this method, outlined in the question may be successful if the stone is of moderate absorbency so that (*a*) all the water is not confined to the joints, and (*b*) dense, cold stones do not cause blotches of internal condensation when atmospheric conditions favour it. The satisfactory waterproofing of lime mortar (beyond its natural resistance) does not seem possible.

E. G.

A Site Planning Booklet

We have received from the Town Hall, Manchester, an illustrated memorandum, "Site Planning and Roads and Small House Design," prepared on behalf of the Town Planning and Building Committee by the City Architect.

The object of this work is to stimulate an interest in site planning and the design of the small house and to give a lead in good practice in the aspects of estate development that become increasingly important when housing is left entirely to private enterprise.

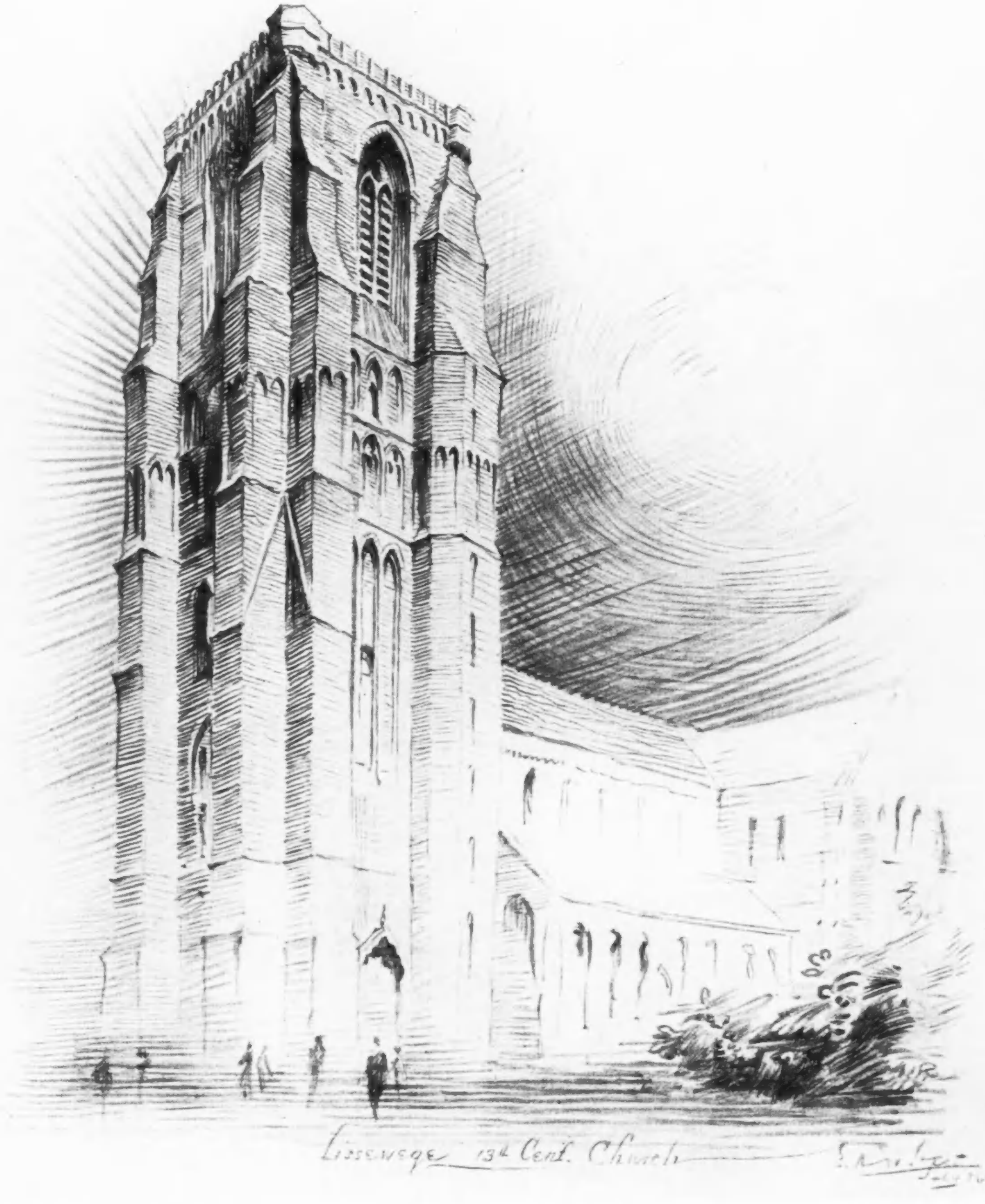


BY J. N. HATTON Compton Wynyates Pen-and-Ink: $7\frac{1}{2}'' \times 10\frac{1}{4}''$

THE

SKETCH CLUB

SIXTY-THIRD SESSION

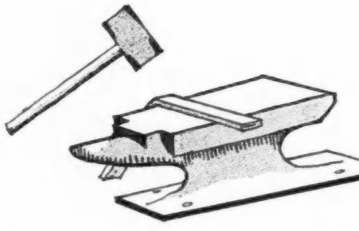


BY ERIC A. W. IXER Lissewege Church Pencil: 9¾" × 12"

Dominating the immense Belgian plain, the tower of the Church of Lissewege rises far above the peaceful village with its white gables and picturesque canals, and is visible from Bruges to the coast.

The building was completed between 1230 and 1260, A.D. which possibly accounts for its remarkable continuity of style. The major portion is built of local bricks of large size, called mouffes, and the sparingly-used dressings are of Tournai stone. The tower is 160 feet high; the total length of the church, 201 ft.; the width of the transept, 97 ft. 6 ins.; the width of the médiane nave, 35 ft. 9 ins.; and of the aisles, 18 ft.; and the height of vaults under keystone, 53 ft. 9 ins.

The thirteenth century was, of course, for Lissewege, as well as for the whole of the district around Bruges, an era of great prosperity, and its population was then much greater than now, which probably explains the magnitude of its Church.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

The control of sub-soil water

THE problem of the final sealing of asphalt dampcourses to basements and sub-water-level chambers has always presented difficulties, and normal present-day methods are not only out of date, but involve the asphalt contractor in considerable risk. I believe, however, the recently patented Trinasco asphalt pipe provides a sound method for overcoming this difficulty.

•

The first three stages hitherto employed in the sealing of a basement are shown in the accompanying diagram. The fourth and final stage involved emptying the open sump and filling it with cement concrete; hasty sealing up with asphalt (a process made more difficult by mud and wet cement over the site) and the final completion of the concrete loading raft. By such methods the testing of the efficacy of the asphalt was a matter of time, and in cases where (through the presence of dirt, defective joints or cracks caused by outside agencies) the sealing was ineffective, the cost of removing the concrete, and once more attempting to seal the sump, was considerable. Again, in cases where the loading raft was found of insufficient weight, the damage caused by the pressure of water lifting the asphalt and loading raft resulted in considerable expense and delay.

•

The new method of attacking this problem, which is illustrated here by a series of five sketches, includes the fixing of Trinasco asphalt pipes into the lower or bottom layer of concrete *during the course of construction* (Stage 1). Through the concrete, by means of suction, the head of water is kept down during the application of the horizontal asphalt layers (Stage 2). The withdrawal of sub-soil water continues during the application of the final cement concrete loading coat, which is left open for the purpose of access in the vicinity of the pipes as shown in Stage 3. As soon as it is considered that the loading concrete raft has become thoroughly set the suction pumps are withdrawn and the Trinasco pipes are sealed with a metal plug (Stage 4), thus bringing the full pressure of the sub-soil water into action. When it is finally agreed that the asphalt is waterproof and the loading coat of sufficient strength to withstand the water pressure, the pipes are finally sealed (Stage 5).

•

The main advantage of this process is that the sub-soil water pressure is controllable, and should, for instance, the concrete loading coat be found of insufficient weight and strength, the pressure of water can be immediately released by withdrawing the metal plugs, and the head of water kept down while the necessary steps are taken to make good any inefficient construction. Again, if at any later date it is necessary to cut through the concrete and asphalt for the purposes of reconstruction, it is a comparatively simple matter to re-open the pipes for the purpose of relieving water pressure whilst the work is in progress.

Electric panel-heating

The modern tendency in artificial warming is to provide radiant rather than convected heat. In convective heating, air, warmed by contact with "radiators," hot-water pipes, fires and various types of tubular heaters, is used as the medium for transmitting heat. The hot air, being light, rises towards the ceiling and, cooling, is slowly displaced by other warmer currents. Consequently the lowest temperature is at floor level and much heat is wasted.

Radiant heating—by no means new—is, today, generally accepted as the ideal method. Heating is effected by rays which produce warmth when they strike an object, but do not heat the air to any appreciable extent. In an apartment thus heated there is a uniform distribution of radiation and a feeling of equal warmth in all parts of the room. A greater degree of ventilation is permitted because more cool air can be introduced, without consequent chilling, than is possible when convective heating methods are employed.

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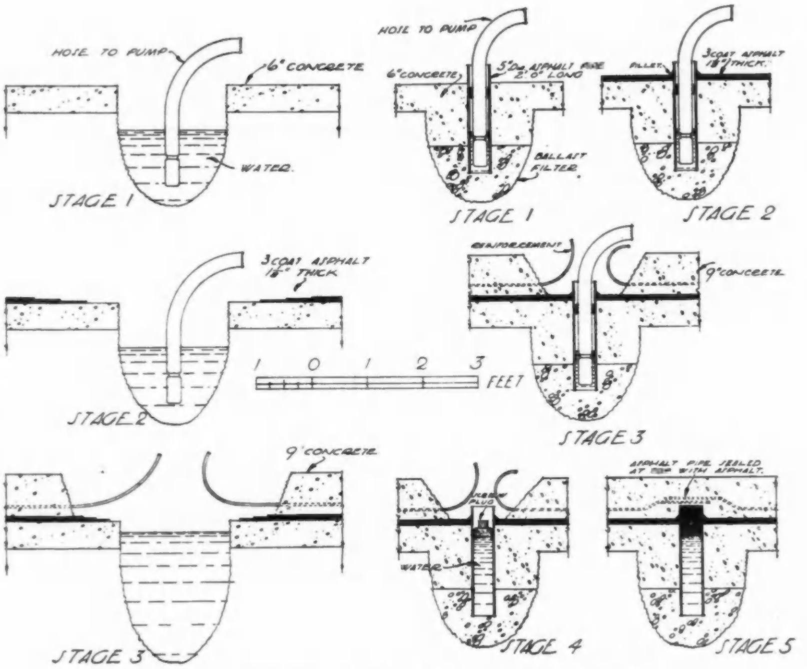
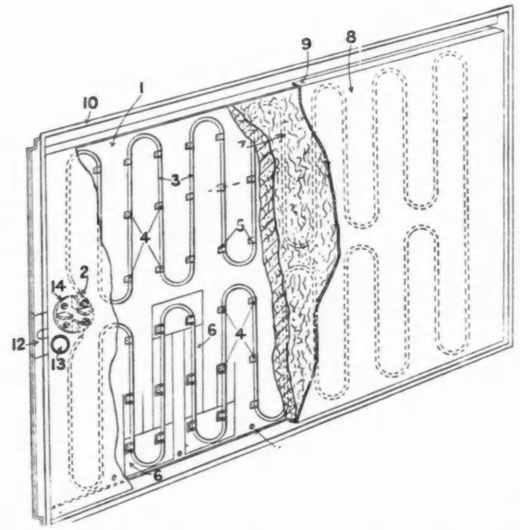
The Braby electric, light steel, heating panel (see illustration on page 507) consists of a rolled steel plate, specially flattened (1), its edges being turned back to retain stiffness, with a heating element of nickel chromium wire (2) encased in a flexible refractory material (3) fastened to it by clips of untarnishable steel (4) by small rivets (5).

Extra insulation between the element and the plate is obtained by means of thin mica strips (6) placed in all positions where contact is made.



The control of sub-soil water and the sealing of sub-water-level basements. On the left: Stages 1-3 of the old method. On the right: Stages 1-5 of the new method.



The rear view of a surface type light steel electric heating panel. The explanation of the reference numbers will be found in the accompanying paragraphs.

To prevent loss of heat from the back of the panel, a mattress (7) of special insulating and particularly non-hygrometric material is laid over the whole of the heated surface and held in position by a galvanized back plate (8) with its edges turned over on to the front plate (1) in box form as shown in (9), thus rendering it water and air tight. These plates are fastened into a moulded steel frame (10).

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Electrical entry to the panel is made either through the removable moulding (12) in the case of surface fixing and wiring, or by the back entry hole (13) to meet recessed requirements. The points of entry are arranged for a ⅝″ conduit. Wire connections are made to a porcelain block of approved pattern (14) by means of porcelain connectors arranged with flexible leads covered with material which is fire and heat proof (not shown).

The standard panels are made 12, 18, 24 and 30 ins. high, and in several lengths. As an indication of the specification and prices of the heater I take the schedule for the 24 ins. high model :

Length		24 inches high. Standard Voltages 100–250.					Price		
		Heating Surface	Wall Mounting		Ceiling or High Level Mounting				
Ft.	in.	Sq. ft.	Watts	B.Th.U.	Watts	B.Th.U.	£	s.	d.
2	0	4·0	320	1090	400	1702	2	18	6
3	0	6·0	480	1670	600	2046	3	10	0
3	6	7·0	560	1920	700	2386	3	17	0
4	0	8·0	640	2180	800	2728	4	4	0
4	6	9·0	720	2450	900	3070	4	12	0
5	0	10·0	800	2730	1000	3410	5	0	0
5	6	11·0	880	3000	1100	3750	5	6	0
6	0	12·0	960	3270	1200	4100	5	12	0
6	6	13·0	1040	3540	1300	4440	5	18	0
7	0	14·0	1120	3820	1400	4770	6	5	0
7	6	15·0	1200	4100	1500	5120	6	12	6
8	0	16·0	1280	4360	1600	5460	7	0	0

The heating element works, at full temperature, under black conditions, and is accommodated in an airtight container to eliminate oxidization. It is claimed that, under these conditions, the element is unbreakable and practically indestructible.

The weight of the panel is approximately 5 lb. per sq. ft.

All standard panels fixed in close proximity to room occupants, fabrics, and so on, are loaded at 80 watts per square foot to give a surface temperature of 155° Fahrenheit. All other types are loaded to 100 watts per square foot, to give a temperature of 195° Fahrenheit. These loadings may, if required, be increased, but in no cases do the temperatures of standard panels rise above the figures quoted.

WHAT IS MODERN ARCHITECTURE?

[*By WILLIAM E. LESCAZE*[*]]

IN spite of a great number of books, lectures and reviews on the subject of modern architecture, it seems to be still commonly held that flat roofs, large glass areas and tubular furniture are not only the productions of modern architecture, but are actually the whole of modern architecture itself. Is this a case of not being able to see the wood for the trees?

Modern architecture is a plastic expression of a philosophy which rests neither on flat roofs nor on tubular furniture, but if this is to be more generally understood we shall need not merely clearer thinking, but also more actual experiences of human beings living inside modern buildings. At all events, modern architecture is not merely the dogmatic acceptance of certain forms and materials, but springs from an attitude of mind towards human life and human needs.

To ascertain where the British public stands today one might mail a questionnaire somewhat like this :—

(1) Do you believe in health?
(2) Do you believe in cleanliness, in comfort?
(3) Do you believe in economy?
(4) Do you believe in honesty?
(5) Do you believe in happiness?

To those who would answer "Yes, I do," the following notice might then be sent : "Acknowledging yours of January 21, 1933, we wish to inform you that you have been elected a member of the Friends of Modern Architecture. You are for modern architecture and modern architecture is for you."

How did modern architecture come about? I can only guess. I imagine it all started because a few sensible people at first, and now more and more people, became ill at ease with their surroundings. They began to investigate and soon found that the nineteenth-century architects had gone on fondly dressing up their buildings in eighteenth century, or older, garb. A series of patent lies had resulted.

In the meantime life had gone on. Railroads, automobiles, electric lights, telephones appeared. Women's dress and men's suits changed, but the architects would not be disturbed. Their little exercises in "styles" had kept them so happily busy that they forgot altogether about "creation."

I remember that not so long ago a cathedral in New York was heralded as the most beautiful one in the world. On what basis was such a claim made? The architects had gone to Europe and brought back drawings of the most beautiful window in Chartres, the most beautiful spire of some English cathedral, and the most beautiful door of some other. It was demonstrated like a mathematical equation that since part *x* equals beauty, part *y* equals beauty, the total sum of *x* plus *y* equalled the greatest beauty. Really, I am not joking.

By now a few sensible people have realized that architecture is a little more than just a pretty sketch, just a lovely façade with something unrelated to it going on behind. They have realized that what counts is man and his activities, that man is the scale. They have thought of the many postures a man assumes ; lying in bed, standing in front of a wash-basin, sitting at the dining-room table, walking, reaching his office, or playing a game. They have thought of what might be the ideal surroundings for these activities : size and location of windows, height of wash-basin, width of street, access to open green spaces. They have seen that as far as our dwellings and streets are concerned we are still barbarians, that we have never considered happiness in our houses, as if grown-ups could not be conditioned as well as children, and that we have not yet started the least bit of intelligent planning.

Now, I don't propose to say that the modern architect is altogether a miracle man. But I do quite emphatically say that he is the only one who has really something to offer to man and society. He is the only one who takes the trouble to *analyse* his problem. He is the only one who dares to build as he has thought, logically and honestly. He is the one who follows the good tradition, who is the tradition. He is the one who fulfils his obligation to his profession, to his fellow men and to society.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Housing Acts

MR. SKELTON, Under-Secretary for Scotland, informed Mr. Kirkwood that at December 31, 1932, the amount of grant paid by local authorities in Scotland in respect of the improvement and reconstruction of houses under the Housing (Rural Workers) Acts, 1926-31, was £951,397. At March 31, 1933, a total of 113 local authorities had received the approval of the Department of Health for Scotland for the erection of houses under the Housing (Scotland) Act, 1930, to accommodate families displaced from unfit houses in their areas, and in addition 43 local authorities were erecting houses definitely intended for this purpose with the aid of the subsidy available under the

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[*] Extracts from an article by the author, reprinted from *The News Letter* for April 1.

Housing (Financial Provisions) Act, 1924. Twenty-one local authorities, who had indicated in the general statements submitted by them under Sub-section 2 of Section 22 of the Act of 1930 that there was a need for houses to replace unfit houses in their areas had not yet submitted proposals specifically intended to meet that need, though some of these authorities were erecting houses under the Act of 1924 which might be used for the accommodation of displaced families. Eight local authorities had not yet submitted any general statement under the sub-section referred to. The Department would continue, where necessary, to press local authorities to provide houses required for rehousing purposes, and, if need be, would put into operation their powers under Section 37 of the Act of 1930 in the case of defaulting local authorities.

Public Works

Sir A. M. Samuel asked the Minister of Health whether he would issue a list of public works involving an individual expenditure of more than £25,000, excluding slum clearance, the building of dwelling houses, schools, and labour exchanges, upon which public authorities, at this date, desired to embark by means of a loan-expansion policy, with or without Government aid; and would he also state the total estimated expenditure and the number of persons likely to be employed upon feasible schemes.

Sir Hilton Young said that this information could be obtained only by means of a return from the local authorities; and the return and deductions based on it would be subject to so many qualifications, as to its inclusive character, practicability of schemes, probable cost and extent of employment and the dates by which employment would be available, as to have no practical value. Local schemes at any given moment were at all stages of preparation, and, before actual loan sanction, required careful examination. The statements already made had removed any doubt as to the ready sanction which awaited proposals for public works of a remunerative or useful character.

Other Trade Items

Readers have probably noticed that this week, in addition to the usual JOURNAL supplements, there is also an additional supplement entitled *The Truscon Review.* This has been issued by the Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, for the special purpose of recording the development and progress of reinforced concrete. This supplement is, as it were, a journal within a journal, and is devoted to research in concrete, for, as the firm rightly point out, "the full possibilities of reinforced concrete are not yet completely realized." The firm, by virtue of their long association with reinforced concrete construction, are well fitted to carry out their object of broadcasting the divers uses for concrete. This number of *The Truscon Review* is the first of a series that will be published from time to time in this JOURNAL. It is an enlightened form of advertising that should, we believe, be much appreciated by architects.

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A remarkable British trading achievement was celebrated by Electrolux, Ltd. at a dinner held recently at the Park Lane Hotel, London, when it was announced that of the 43 associated companies, the British Organization had won the International Trophy for the highest quota of sales in 1932.

Messages of congratulation from Sir Robert Horne, M.P. and Lord Burnham were read by the Chairman of the company, Sir Harold Wernher. Lord Burnham stated that it was remarkable that the company had been able to increase its profits during the period of tragic depression for nearly all trades.

Describing the growth of the company, Sir Harold said: "The Electrolux International Organization consists of 43 companies operating in almost every civilized country in the world; it has many thousands of employees, and four main factories. The company started with a capital of £10,000 and has grown within 20 years to its present capitalization of over three million pounds. This growth came in the post-war period, and largely in countries which had been devastated by war, such as Germany. By prudent working and conservation of finances, the company's position was consolidated in spite of world-wide depression."

The Marquess of Milford Haven, proposing the toast of the factory, traced the growth of the technical side of the British organization from 1921, when the company had a single basement room in Newman Street, London, to the present day, when the most ambitious of all their extensions—a completely new office building, stores and enlarged factory building—were nearing completion.

*

Messrs. Davidson & Co., Ltd., engineers and ironfounders, of the Sirocco Engineering Works, Belfast, Ireland, have sent us a copy of a new brochure (No. S.F.26) illustrating and describing Sirocco high-pressure fans. The fans, which have been designed for comparatively high pressures necessary in the supply of air blast to smiths' hearths, forges, cupolas, or for work of similar character, are marketed in four different types: (1) Cast-iron high-pressure fans, suitable for forges calling for static pressures up to 16 ins. water gauge; (2) single-inlet cupola fans for cupola or other work calling for static pressures up to 30 ins. water gauge; (3) double-inlet cupola fans for similar work to the single-inlet type; (4) narrow pressure fans designed to give a small volume of air at static pressures up to 30 ins. water gauge for general high-pressure work.

Briefly, the brochure includes some interesting examples of recent installations and contains detailed and accurate information concerning duties, weights and dimensions for the wide range of sizes listed. In addition, numerous tables assist in determining the most suitable Sirocco fan equipment for use under diverse operating conditions. Copies are obtainable from the firm at the address given above.

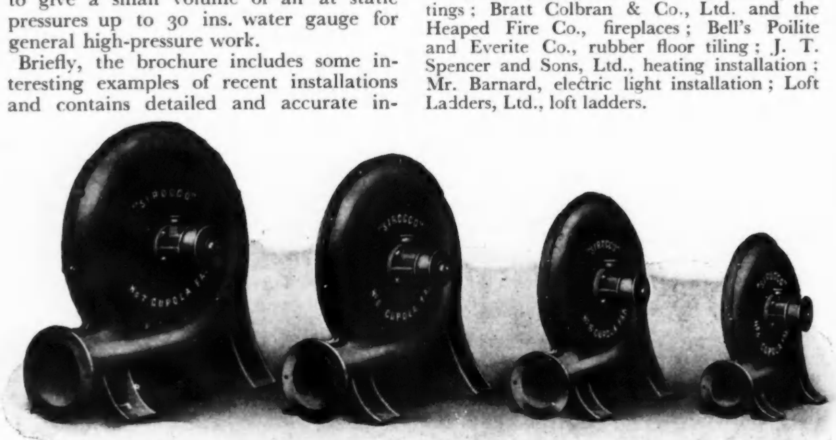
THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:—

St. Alban's Church, Golders Green (pages 489–491 and supplement). General contractors, F. G. Minter, Ltd. Sub-contractors: Ames and Finnis, facing bricks and roof tiling; Ragusa Asphalte Paving Co., asphalt work; G. N. Haden and Sons, Ltd., heating (oil-fired) and electric lighting; Redpath, Brown & Co., Ltd., steelwork; Wilson Lovatt and Sons, pile foundations; Xelite Co., Ltd., plastering; Concrete Ltd., concrete flats; Acme Paving and Flooring Co., wood block flooring; James Gibbons, Ltd., windows and ironmongery; John Compton Organ Co., organ; J. Whitehead and Sons, Ltd., stone steps and paving to chancel and Lady Chapel; Mears and Stainbank, bells; Hornton Quarries, Ltd., stonework of altar and reredos; Green and Vardy, woodwork of reredos, organ-cases, font cover, etc.; Watts & Co., Ltd., decoration of reredos—hangings and canopy forming Lady Chapel reredos and two oak standard candlesticks; F. G. Minter, Ltd. (Furnishing Dept.), communion rails and congregational stairs.

School at Maidenhead (pages 498–501). General contractors, William Creed & Co. Sub-contractors: Dutton & Co., Ltd., heating; C. Harvey & Co., electrical wiring and fittings; Henry Hope and Sons, Ltd., windows; Roberts Adlard & Co., Ltd., roof tiling; Pearson Brothers and Campbell, Ltd., artificial stone; Diespeker & Co., Ltd., terrazzo partitions, etc.; Val de Travers & Co., Ltd., asphalt; Banister, Walton & Co., Ltd., steelwork; Carter (Brockley), Ltd., wall-tiling; Leeds Fireclay Co., Ltd., sanitary fittings; James Gibbons, Ltd., locks; Luxfer, Ltd., patent glazing; F. Jukes, wrought ironwork; Stoner and Saunders, Ltd., lead work; Stevens and Adams, Ltd., wood block floors; E. G. Walters & Co., Ltd., jointless floors; Bratt Colbran & Co., Ltd., fireplaces; Maidenhead Brick & Tile Co., bricks.

House at Caversham, Reading (page 503). General contractors, W. N. and E. Fisher. Sub-contractors: S. and E. Collier, facing bricks; W. W. Hall, tiles; Shanks & Co., sanitary fittings; Bratt Colbran & Co., Ltd. and the Heaped Fire Co., fireplaces; Bell's Poilite and Everite Co., rubber floor tiling; J. T. Spencer and Sons, Ltd., heating installation; Mr. Barnard, electric light installation; Loft Ladders, Ltd., loft ladders.



Range of Sirocco single-inlet cupola fans. Sizes: 35, 30, 25 and 20 ins. diameter. See note on this page.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The ISLINGTON B.C. has purchased a site in Sebbon Street, for housing purposes, for £8,000, and propose that a scheme for the erection of 109 dwellings on the site, comprising 78 three-room, and 31 four-room flats, each with scullery, bath and lavatory accommodation, be prepared in due course.

Plans passed by the LEWISHAM B.C.: Three shops, Davenport Road, for Messrs. Walker, Clinging & Co.; 198 houses, Northbrook Park Estate, for Messrs. Chart, Son and Reading; eight houses, Brockley View, for Messrs. Dunsmore Bros.; 116 houses, Brockley Hall estate, for Mr. H. Macintosh.

Plans passed by the NORTHFLEET U.D.C.: Eight houses, St. Mark's Avenue, for Mr. Gillespie; 16 houses, Plane Avenue, for Mr. C. J. Howard; four houses, Plane Avenue, for Mr. W. J. Dyke; induced draught house, Electricity works, for Henley's Telegraph Works, Ltd.

Plans passed at SANDERSTEAD: Two houses, Purley Bury Close, for Messrs. W. J. Frewing and Sons, Ltd.; four houses, York Road, for Mr. G. Burgess; six houses, Mitchley Avenue, for Messrs. Harold Williams, Holliday and Partners; four houses, Limpsfield Road, for Mr. C. Pragnell.

Plans passed by the SOUTHALL-NORWOOD U.D.C.: Three houses, Greenford Avenue, for Mr. H. Gosney; seven houses, Saxon Road, for Messrs. E. Plaistowe and Sons, Ltd.; eight houses, Longford Avenue, for Messrs. G. Wimpey & Co., Ltd.; three shops, North Road, for Mr. E. Hayes; additions, 65 Broadway, for Messrs. F. W. Woolworth & Co., Ltd.; workshop and store, Havelock Road, for British Insulating Oil and Varnish Co.

Plans passed by the WEALDSTONE U.D.C.: 11 garages, Kenton Road, for Mr. E. Wright; 28 houses, D'Arcy Drive, for Mr. John Turner; 12 flats, off Harrow View, for Messrs. Nethercott and Pepper.

Plans passed by the WOOD GREEN U.D.C.: Public House, Lordship Lane and Roundway, for Mr. A. W. Blomfield; motor coach station, Lordship Lane, for Messrs. Crickmay and Shenstone.

SOUTHERN COUNTIES

Plans passed by the OXFORD Corporation: Two houses, Windmill estate, for Mr. E. S. Clifford; additions, Somerville College, for College Council; two houses, Iffley Road, for Mr. G. Simmons; two houses, Ramsay Road, for Mr. G. Coppock; shops and flats, Woodstock Road, for St. John's College Council; hall and dormitory, Temple Road, Cowley, for Salesian House Council; addition, Radcliffe Science Library, Parks Road, for trustees; alterations, 129 High Street, for Messrs. Webbers, Ltd.

The Surrey C.C. has approved a revised scheme for extensions at the REIGATE Institution, at a cost of £120,000.

The West Sussex Education Committee has approved a scheme for the reorganization of the schools in the SHOREHAM and SOUTHWICK area involving a total expenditure estimated at £39,000, and providing for the immediate erection of two senior schools, at an estimated cost for each school of £16,000.

The WEST SUSSEX C.C. is to invite tenders for the foundation work of the new County Offices, at an estimated cost not exceeding £10,000.

The WORTHING Corporation is to undertake part of the scheme for the development of the Beach House site, by the construction of a bathing pool, boating pool, sea wall, etc., at a cost of £60,680.

Plans passed by the WORTHING Corporation: Two dwelling houses, Arundel Road, for Mr. C. Coul; flats, Wallace Avenue and Pevensey Road, for Cole-Adams, Phillips and Cheriton; street to join Sea Place (amended) for Mr. G. W. Warr; seven houses, Rose Walk, for Mr. M. R. Fletcher; 15 houses, Haynes Road, for Mr. S. C. Phillips; two houses, Brighton Road, for Mr. A. T. W. Goldsmith; alterations to Brunswick Hotel, Brunswick Road, for Mr. E. Emerson; two houses, Hillside Avenue, for Mr. E. J. Love; seven houses, Manor Road, or Mr. H. M. Potter; three houses, George V. Avenue, two houses, Ophir Road, and Offington Lane, for Mr. F. W. Payne; addition to Inkerman Hotel, Shelley Road, for Mr. J. E. Lund.

EASTERN COUNTIES

Plans passed by the YARMOUTH Corporation: Two houses, Hawkins Avenue, for Messrs. H. R. Middleton & Co., Ltd.; two houses, Middleton Road, Gorleston, for Mr. H. C. Downing; two houses, Collinwood Road, for Mr. G. W. Woods; shop, Ordnance Road, for Mr. B. Cole.

The YARMOUTH Corporation has sold six building sites to Mr. H. A. Holmes and eight to Messrs. H. R. Middleton & Co., Ltd.

MIDLAND COUNTIES

The BIRMINGHAM Education Committee is to make structural alterations and additions at Hope Street Council School, at a cost of £11,000.

The LEICESTER Corporation is to reconstruct the Corn Exchange and Market Hall, after fire, at a cost of £12,000.

The NORTHAMPTON Corporation recommends an amended scheme for the erection of baths at a cost of £82,000.

Plans passed by the WOLVERHAMPTON Corporation: Two houses, Oxley Manor, for Mr. A. C. Phillips; four houses, St. Judes Road, for Messrs. Weaver and Walters; three houses, Oxbarn Avenue, for Mr. G. E. Lockley; 10 houses, Victoria Road, Oxbarn, for Messrs. E. Leach & Co.; six houses, Oxbarn Avenue, for Messrs. Blackburn and Crossland; two houses, Langley Road, for Mr. R. Carpenter; 28 houses, Victoria Road, Oxbarn, for Messrs. T. Wellings and Sons; two houses, Prestwood Road, for Mr. T. A. Ashbury; covered yard and compressor house, Stewart Street, for Messrs. C. and B. Smith; three houses, Milton Road, for Mr. H. Grindley; alterations, Queens Square, for Wolverhampton Building Society; five shops, Dudley Road, for Messrs. H. and J. N. Patten; four shops, Dudley Road, for Wolverhampton and Dudley Breweries, Ltd.; four bungalows, Rowan Crescent, for Messrs. F. Leach & Co.; steel warehouse, Tower Street, for Messrs. E. Birch and Sons; additions, offices, Bilston Road and Eagle Street, for Messrs. H. F. Spencer & Co.; business premises, Newbridge, for Mr. E. F. A. Summerfield; two houses, Coalway Road, for Mr. H. Webberley; four houses, Plascom Road, for Messrs. Senior and Smith, Ltd.; two houses, Tudor Crescent, for Mr. W. Winsper; 12 houses, Stafford Road, Fordhouses, for Bushbury Estate and Building Co.; 16 houses and one shop, Jones Avenue, for Mr. T. Jones.

NORTHERN COUNTIES

To the HYDE Corporation it was reported that the Ministry of Health would be prepared to entertain the proposals of the Corporation for the 176 houses to be erected at Bradley Green.

The SOUTH SHIELDS Corporation is to proceed with the clearance of the Holborn area, and provide rehousing accommodation by the erection of about 600 houses on the site, and at Simonside.

Plans passed by the STOCKTON-ON-TEES Corporation: Reconstruction, Hippodrome, Dovecot Street, for Messrs. Chadwick, Watson & Co.; two houses, Albany Road, Norton, for Mr. M. C. Robson; development of Brisbane Garden estate, for Mr. G. P. Stainsby, on behalf of House and Garden Estate Co., Ltd.; 162 houses, Glebe estate, for Corporation.

Plans passed by the STRETFORD U.D.C.: Eight houses, Skerton Road, for Messrs. Sparke and Stephens; 20 houses, Derbyshire Lane, for Messrs. E. and J. Slater; 16 houses, Derbyshire Lane, for Mr. H. Grinshaw; 18 houses, Manor Road, for Messrs. Freeman, Evans & Co.; pump house, Saw Mills, Trafford Wharf Road, for Co-operative Wholesale Society, Ltd.

Plans passed by the TYNEMOUTH Corporation: 10 houses and two shops, Heaton Terrace, for Mr. W. Stockdale; four houses, Station Approach Road, for Messrs. G. O. Park and Son; alterations, Plaza Winter Garden, for Tynemouth Gala Land, Ltd.; two shops, Chirton Green, for Mr. F. R. N. Haswell; eight houses, Brighton Grove, for Messrs. Cackett, Burns-Dick and Mackellar; two houses, Billy Mill Lane, for Messrs. Williamson Bros.

Plans passed by the WAKEFIELD Corporation: 28 houses, Ashleigh Avenue, for Mr. J. Percy Firth; six houses, Dewsbury Road, for Messrs. Kay and Lunan; 10 houses, Duke of York Street, for Mr. M. Arnold; shop, The Springs, for Messrs. Simpson and Moxon; six houses, Dewsbury Road, for Mr. J. Caton.

Plans passed by the WALLSEND Corporation: Three houses, Queen's Terrace, for Mr. A. Heron; offices, etc., King's Road, for Messrs. R. C. Watson and Sons; three houses, Churchill Street, for Mr. Kirton Smith.

The WARRINGTON Corporation has approved the following plans: Alterations and additions to premises, Winwick Road, for Mr. B. Tyrer; internal alterations, Town Hall, for Messrs. Burgess Bros.; houses (revised block plan), Surrey Street, for Mr. A. Wright; roads off Chester Road, for the Manchester Ship Canal Co.; eight houses, Chester Road, and roads off, for Mr. A. Cannell.

SCOTLAND

The GLASGOW Corporation has approved a plan showing proposals to build eight single, and two double shops, and 20 houses of flatted type, fronting Boydstone Road, Carnwadric; two two-story tenements, fronting Bangorshill Street; 12 houses of flatted type, on the area bounded by Capelrigg Street, Clova Street, and Carnwadric Road.

The GLASGOW Corporation has approved a lay-out plan showing 350 houses to be erected, comprising 74 cottages and terrace cottages, 100 houses in two-story flats, and 176 houses in tenements, at Bellahouston.

WALES

The CARDIFF Corporation is to erect 200 houses on the Tremorfa estate.

To the CARDIFF Corporation it was reported that the Minister of Health has held an inquiry into the application of the Corporation to borrow £12,080, and the Water Engineer was authorized to proceed with the preliminary works in connection with the reconstruction of the Blackweir Depot.

Plans passed by the NEWPORT (Mon.) Corporation: 54 houses, off Somerton Road, for Messrs. J. D. Adey and Sons; 89 houses, off Somerton Road, for Messrs. F. R. Bates and Son; two houses and shop, Marshfield Street, for Mr. Pottinger Hodge; three houses, Liswerry Road, for Mr. S. G. Bland; new premises for South Wales Argus, Ltd., in Market Street, for Mr. C. E. Tebbs; three flats, Cromwell Road, for Mr. D. Averbuck; extensions, Cardiff Road, for Whitehead Iron and Steel Co., Ltd.; three houses, Friars Road, for Mr. A. E. Sheppard.

Plans passed by the SWANSEA Corporation: Dairy and milk container factory, Station Road, Cockett, for Mr. David George; two houses, Station Road, Cockett, for Mr. Syd Davies; four houses, Middle Road, for Mr. David Morgan; house, Middle Road, for Mr. J. M. Jones; butter factory, Courtenay Street, for Mr. J. O. Walters; additions, High Street, King Street, and Orchard Street, for Messrs. Lewis Lewis, Ltd.; two houses, Mansel Road, for Mr. H. Roser; 14 houses, Mount Pleasant, for Mr. John Oliver.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid Counties	1 4½	1 0½
B_3	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A_3	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_2	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6¾	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

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* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	d.	6" s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	$\frac{3}{16}$"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:
(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	d.	4" s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2⅞
,, ,, 26 oz. ,, ,, ,,	,,			3¾
Arctic glass, white	,,			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,			6⅛
¼" Hartley's rough rolled	,,			7
¼" ,, wired cast	,,			10
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†7½	to	‡1 0
,, ,, 2	,,	†10	,,	‡1 3½
,, ,, 3	,,	†1 4½	,,	‡1 10
,, ,, 4	,,	†1 11	,,	‡2 4
,, ,, 6	,,	†2 3	,,	‡2 7½
,, ,, 8	,,	†2 5	,,	‡3 0½
,, ,, 12	,,	†2 10	,,	‡3 3½
,, ,, 20	,,	†3 3½	,,	‡3 9
,, ,, 45	,,	†3 6½	,,	‡4 0½
,, ,, 65	,,	†3 11½	,,	‡4 4
,, ,, 90	,,	†4 4	,,	‡4 9
,, ,, 100	,,	†4 6	,,	‡4 11
Vita glass, sheet n/e 1 ft.	,,			1 0
,, ,, ,, ,, 2	,,			1 3
,, ,, ,, over 2	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2	,,			3 0
,, ,, ,, 5	,,			4 0
,, ,, ,, 7	,,			5 0
,, ,, ,, 15	,,			6 0
,, ,, ,, over 15	,,			7 6
Putty, linseed oil	lb.			3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay . . . add	,,		3	0
If in underpinning ,,	,,		5	0
Digging, return, fill and ram ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s. d.	6" s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions	,,	3 9	4 6
Gullies and gratings	,,	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
½" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	,,	7	9	1 0	1 3	2 0	—
Boiler screws and unions	,,	3 6	4 0	5 6	8 0	—	—
Lead traps	,,	—	—	—	7 6	10 0	—
Screw down bib valves	,,	7 6	10 6	12 6	—	—	—
Do. stop cocks	,,	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7¼
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

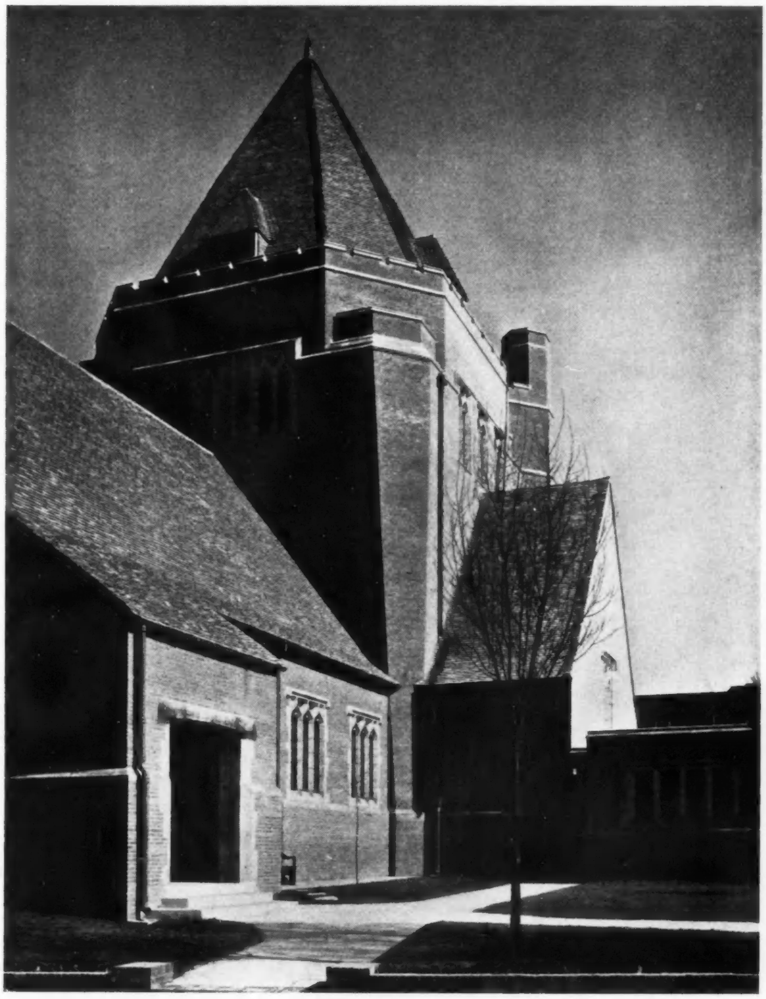
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	,,	2	9

ST. ALBAN'S CHURCH, GOLDERS GREEN

DESIGNED BY

SIR GILES GILBERT SCOTT, R.A.

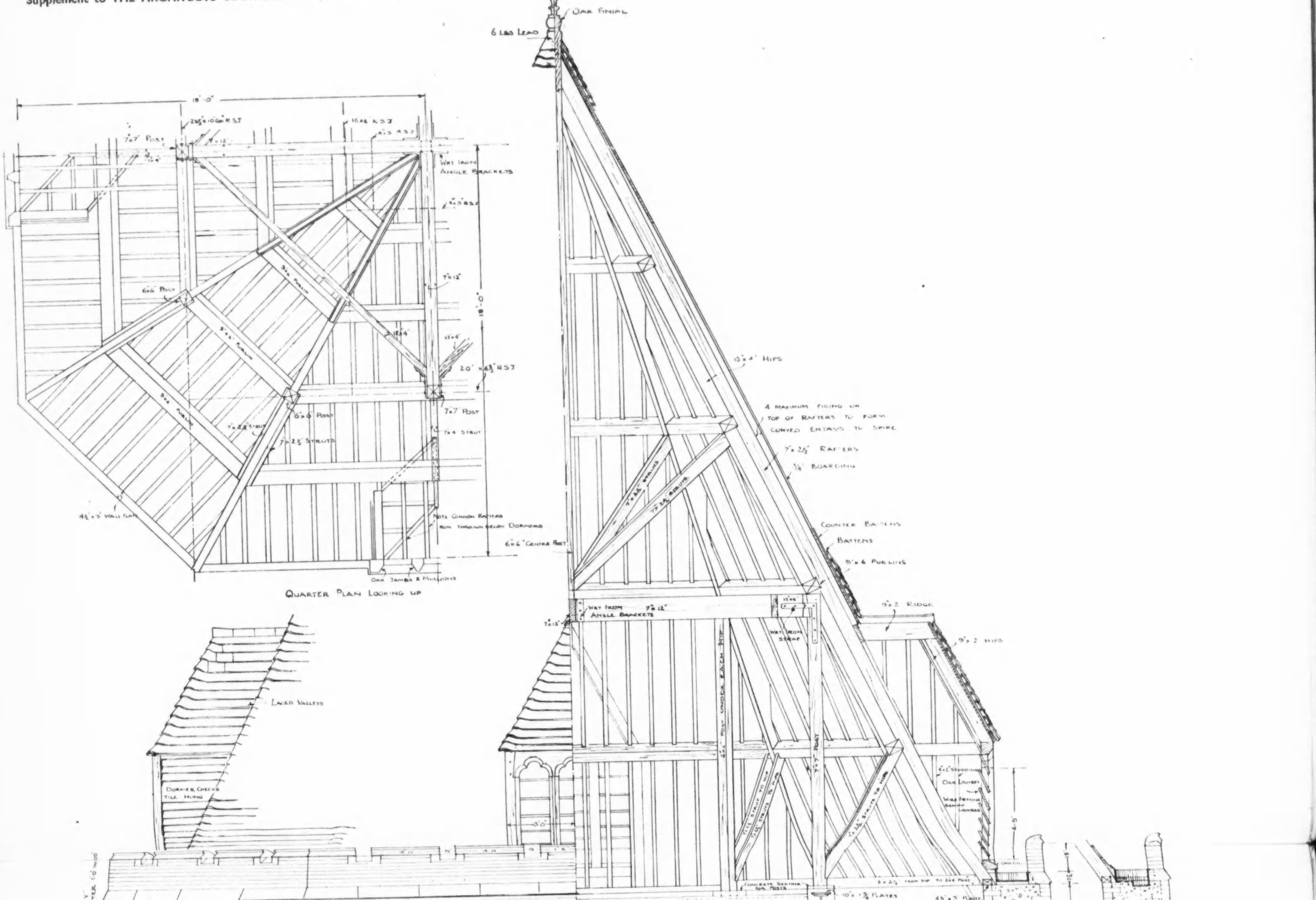


THE TOWER AND WESTERN PORCH

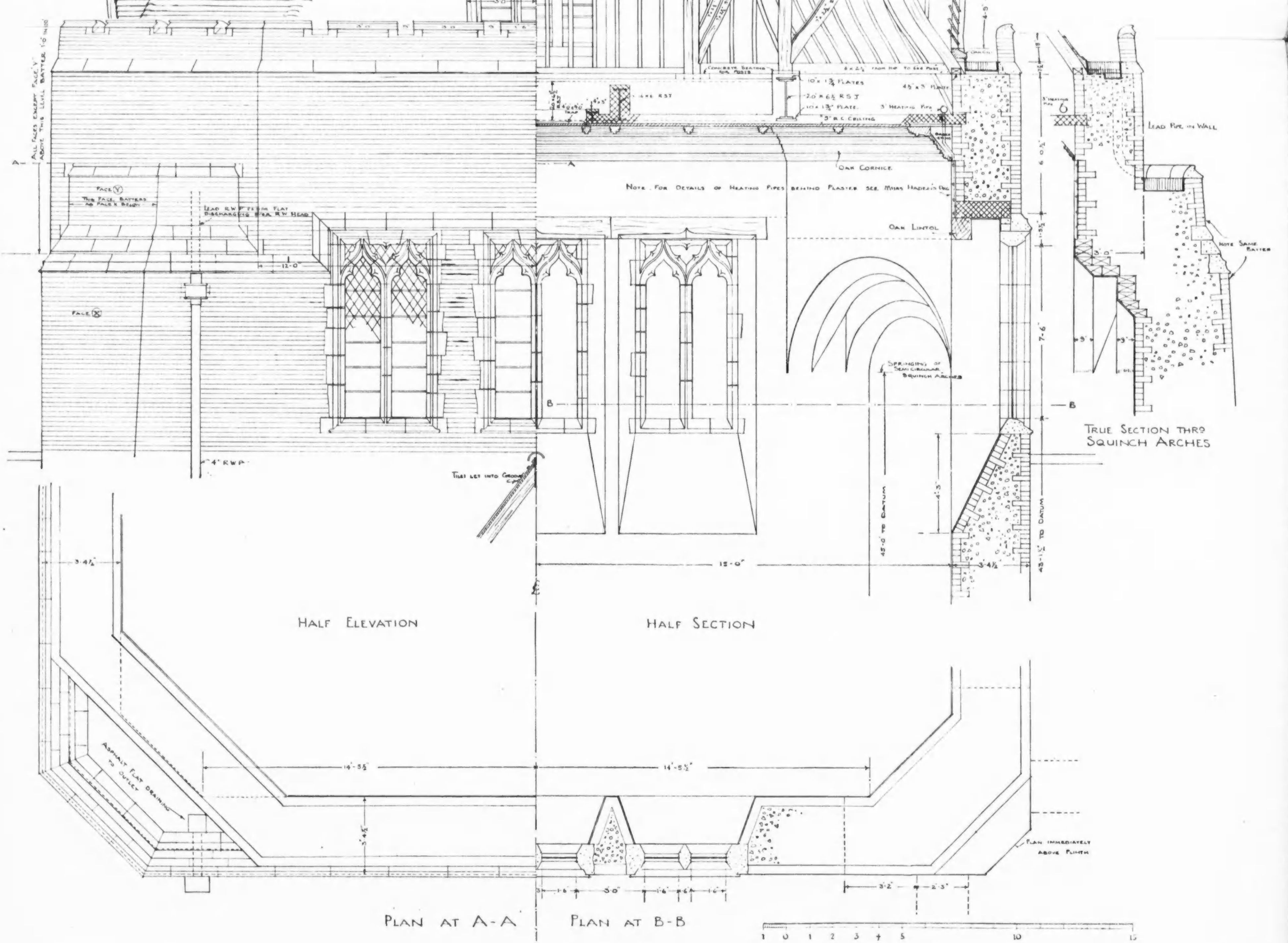
THE central tower of this cruciform church is unusually large on plan; the space beneath it is lit by high-level windows, clear of the roofs of nave, chancel and transepts. The large-scale drawing reproduced within shows constructional details of the upper portion of the tower; that of the section, on the last page, makes clear its relation to the whole structure.

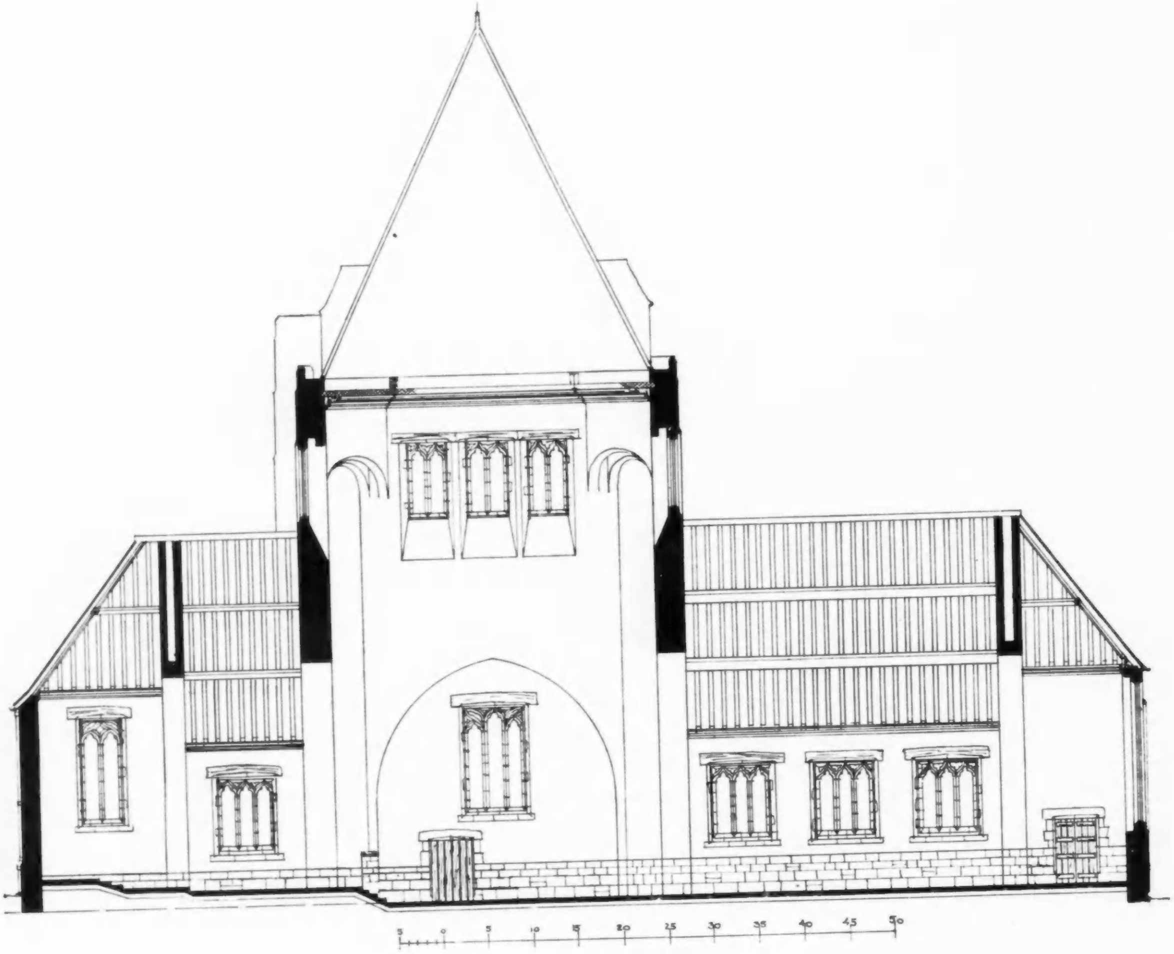
Other illustrations and a description of the building are published on pages 489-491 of this issue. The total cost, including organ and fittings, is £24,000.

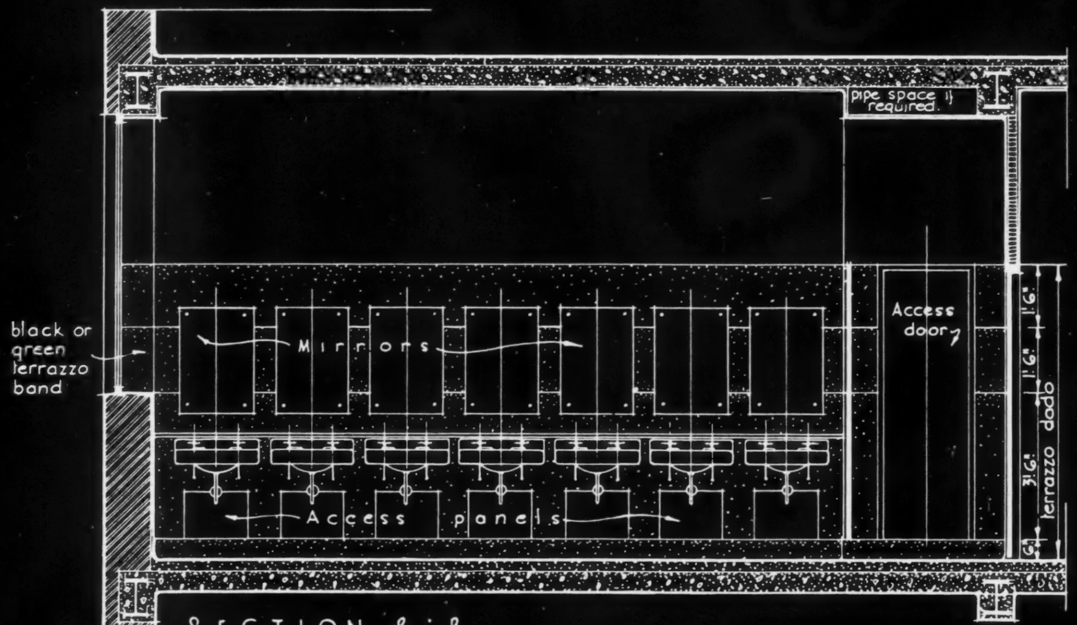
Supplement to THE ARCHITECTS' JOURNAL for April 12, 1933



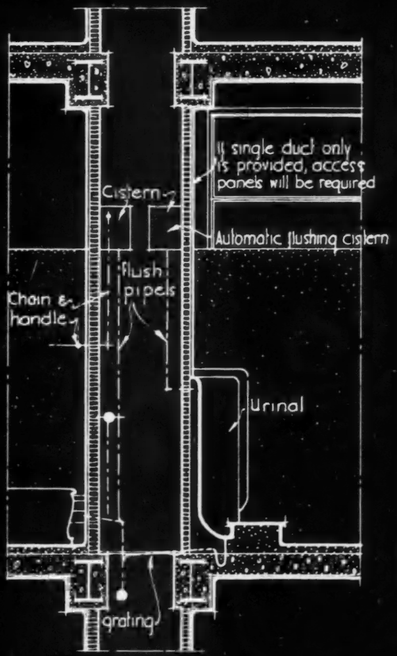
Oak Finial
6 lbs Lead
18'-0"
28⅞ x 10⅝ R.S.J.
16 x 6 R.S.J.
4 x 3 R.S.J.
7 x 7" Post
7 x 12
Wrt Iron Angle Brackets
4 x 3 R.S.J.
7 x 12"
18'-0"
12 x 4"
12 x 4"
20" x 6⅞" R.S.J.
6 x 6" Post
9 x 6 Purlin
9 x 6 Purlin
9 x 6 Purlin
6 x 6" Post
7 x 2½ Strut
7 x 2½ Struts
7 x 7" Post
7 x 4 Strut
4½ x 3 Wall Plate
Note Common Rafters run through below Dormers
6 x 6" Centre Post
Oak Jambs & Mullions
Quarter Plan Looking Up
Laced Valleys
Dormer Cheeks Tile Hung
3'-0"
15 x 4" Hips
4 maximum firing on top of Rafters to form curved entasis to spire
7" x 2½" Rafters
¾" Boarding
7 x 2½ Struts
7 x 2½ Struts
Counter Battens
Battens
9" x 6 Purlins
Wrt Iron Angle Brackets
7 x 12"
7 x 12"
12 x 4"
Wrt Iron Strap
9 x 2 Ridge
9 x 2 Hips
6 x 6" Post under each Hip
7 x 7" Post
7 x 2½ Strut to Hip
7 x 2½ Struts to Hip
7 x 2½ Struts to Hip
4 x 2" Studding
Oak Louvres
Wire Netting behind Louvres
4'-9"
Oak Cill
Concrete Seating for Posts
6 x 2½ from Hip to 6x6 Post
10" x 1¾ Plates
4½ x 3 Plate


All faces except face 'Y' above this level batter 1-0 in 100
A
Face (Y)
This face batters as face X below
Lead R.W.P. from flat discharging into R.W. head
12-0"
Face (X)
4" R.W.P.
Tiles let into groove
Concrete bearing for posts
6 x 2½ from hip to 6x6 post
10" x 1¾ plates
4½ x 3 plate
20 x 6½ R.S.J.
10 x 1¾ plate
3" heating pipe
5" R.C. ceiling
6x6 R.S.J.
4'x5"
4"x4½" trap
Oak cornice
Note. For details of heating pipes behind plaster see Messrs Haden's Drg.
Oak lintol
Oak sill
Springing of semicircular squinch arches
45-0 to datum
43-1½ to datum
4-3
4-5
18
7½
6 0½
1-5½
7-6
3-4½
15-0
B
Lead pipe in wall
3" heating pipe
3'0"
9"
Note same batter
True Section thro Squinch Arches
Half Elevation
Half Section
℄
14'-5½
14'-5½"
3-4½
Asphalt flat draining to outlet
Plan immediately above plinth
3
1-6
3-0"
1-6
6
1-6
3-2
2-3
Plan at A-A
Plan at B-B
1 0 1 2 3 4 5 10 15

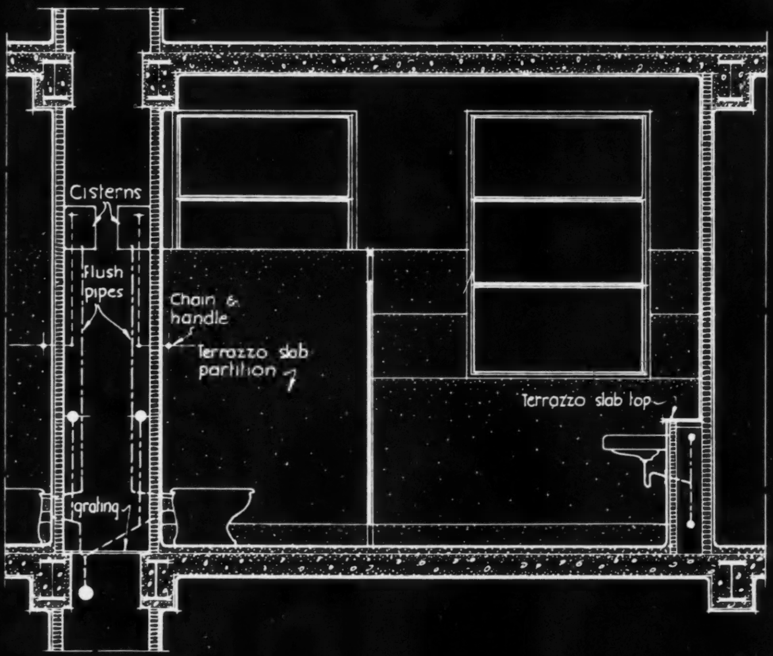



black or green terrazzo band
Mirrors
Access panels
pipe space if required.
Access door
1'6"
1'6"
3'6"
6"
terrazzo dado

SECTION B:B.


If single duct only is provided, access panels will be required
Cistern
Automatic flushing cistern
Chain & handle
flush pipes
Urinal
grating

SECTION C:C.


Cisterns
flush pipes
Chain & handle
Terrazzo slab partition
Terrazzo slab top
grating

SECTION D:D.

DETAILS OF STANDARD TYPE LAVATORIES

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

Supplement to THE ARCHITECTS' JOURNAL for April 12, 1933

INFORMATION SHEETS

• 13 •

LAVATORY UNITS

•

LAST week's Information Sheet illustrated, in plan and section, a standard self-contained lavatory, combining the three essential types of fittings. This week's is a companion, giving three more sections of the same design. Sheets 1 and 5 should be referred to for subsidiary details.

The following is a complete list of the subjects previously issued :—

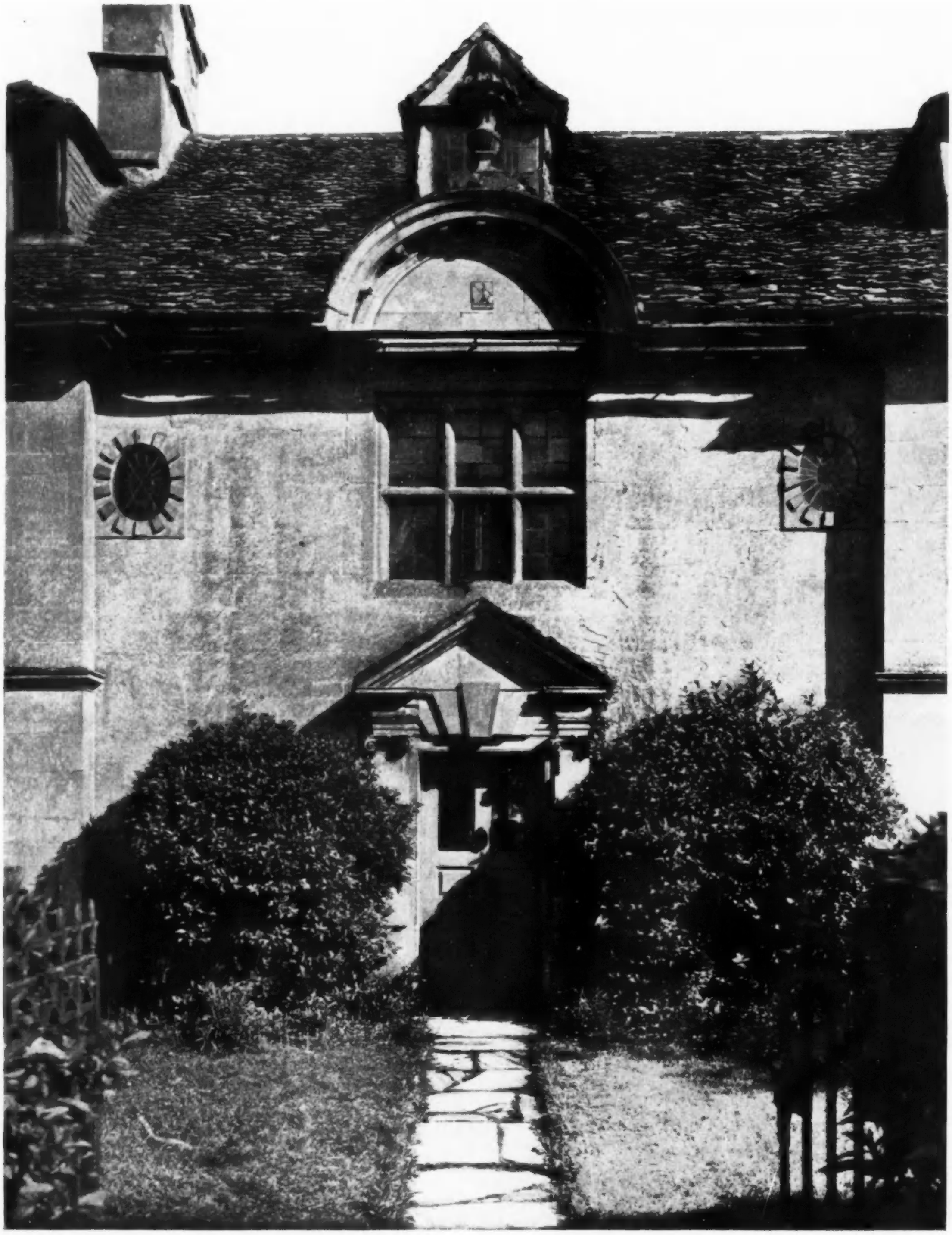
1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.

GUILDFORD CATHEDRAL

THE CROSS TO MARK THE SITE

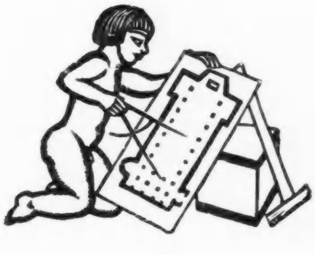
TODAY, April 19, the Bishop of Guildford will unveil the huge wooden cross, shown above in course of erection, on the site of the proposed new Cathedral at Stag Hill, Guildford, for which Mr. Edward Maufe is the architect. The cross is 35 feet high and is constructed of teak from the old battleship "Ganges."

The design for the Cathedral, won in competition, was illustrated in our issue for July 27, 1932.



THE COTSWOLD TRADITION

Medford House, Mickleton, Gloucestershire, the home of the Medford family, was built in Campden stone to a design in which symmetry was the dominating influence. Certain additions in the classical style, made in 1699 or thereabouts by Samuel Medford, were carried out in brick without detriment to its character. And the principle was regarded even later—no doubt towards the middle of Queen Anne's reign, when powdered wigs became the mode—in forming the two lunettes to give light to powdering closets.



SIR HILTON YOUNG'S EASTER EGG

HAD Sir Hilton Young his tongue in his cheek when he authorized the issue last week of a Ministry of Health circular calling upon local authorities to put an end to the slum evil by 1938? The idea of a Five-Year Plan was borrowed from Russia, and as a method of camouflaging the retreat from the Wheatley subsidy, bellicose phrases about the coming offensive have political value. Following wireless speeches and newspaper articles, which have excited public emotion, the Ministry's circular has been "stunted" in the daily Press. Consequently some may actually anticipate that in five years' time our disgraceful slums will have been swept away.

It should be noted, however, that the official circular makes no attempt to define the word "slums," but suggests that they are a "strictly limited problem." The word can, of course, be used to cover a multitude of buildings. Sir George Duckworth, in the notable address which he gave to the Royal Institute of British Architects in 1926, defined a "slum" as "a street, court or alley which reflects the social conditions of a poor, thriftless, irregularly employed and rough class of inhabitants." If this definition is accepted, Sir Hilton Young hopes by his Five-Year Plan to abolish poverty, casual employment and thriftlessness. But a careful study of the Ministry's circular reveals that the officials are in fact aiming only at the demolition of the miserable dwellings, erected back to back, often below river level, without drains, and scandalously congested, at a time when manufacturers and landlords were inspired by an individualism run mad. The third and fourth generation of today are suffering for the sins and shortsightedness of their forefathers.

Still, anyone who has visited, for example, the basement dwellings of Kensington, the fetid courts in the Midlands, or the airless tenements of Glasgow, will wish "God-speed" to the National Government in their effort to stimulate local authorities to action. Conditions are now exceptionally favourable for a campaign to clear away the relics of the Industrial Revolution, and to provide new accommodation on 1933 standards for the dishoused tenants. The annual subsidy of £2 10s. per person re-housed, together with a grant from local rates, make up a substantial sum. If father, mother and three children are taken from a cellar dwelling and given a new home, the five in the family carry the equivalent of a subsidy from public funds of about 6s. a week. This should enable the rent to be reduced by 6s., so as to be within the means of an unskilled artisan.

All men and women of good will should therefore do their utmost to support their local authorities, if the councils are prepared to take action, and to prod them if they are inactive. Architects especially, who have influence, should point out that low costs, cheap money, big subsidies, and the immense need combine to make this the time for a push.

Granting the opportunity, the realist will nevertheless be a trifle suspicious of the rather bombastic language used by politicians. On a conservative estimate, the number of slum dwellings which are so worn out as to deserve instant demolition is 250,000. During the last 15 years such dwellings have been cleared at the rate of only 1,000 a year. The City of Leeds Improvements Committee, in a Majority Report, recently estimated that it would take 25 years to clear their local slums, while those members, including Labour representatives, who signed a Minority Report, estimated that the minimum period required would be 15 years. In view of these figures, how can Sir Hilton Young, the Minister of Health, imagine that it will be possible to sweep away in five years the derelict homes which cluster by the thousand in the poorer quarters of our industrial cities, especially in the depressed areas of South Wales and North-East England? His officials admit that a longer period will be required in London, and anyone with experience of the provinces knows that, with the best will in the world, the people in 250,000 houses, to the number of over 1,000,000, are unlikely at the present rate of progress to be transferred to new homes from old hovels by 1938, or for that matter by 1958.

A glaring defect of the circular is the absence of reference to the necessity of a plan. Without wise town planning, and the thought-out re-development of districts, piecemeal slum work will be of little avail. This is an important aspect of the whole slum problem, with which we hope to deal in this JOURNAL in the near future. For the present, while we welcome the Government's circular, we would state clearly that it is little more than a bright gesture. The country should not be deceived by words into thinking that this Easter egg will hatch out a noble fowl.

R. A. Duncan, A.R.I.B.A., author of "The Architecture of a New Era," referred to below, is partner in the firm of Percy Tubbs, Son & Duncan.

NOTES & TOPICS

DOGMA AND LIFE IN ARCHITECTURE

When people are noted for holding and expressing advanced or uncommon views it is always interesting to hear from them the reason for their outlook, and the mental process (or accident) which started them off along that particular trail. In many cases the beginnings were so ethereal and indefinite that the individual himself has no clear realization of his own original stimulus.

*

I picked up, the other day, a copy of R. A. Duncan's new book, *The Architecture of a New Era*, but, as generally happens (as a judgment on me for borrowing instead of buying !) I could not read the book before it was reclaimed.

*

But I did read the Foreword, which Mr. Duncan has wisely supplied to "let us in" on his own reactions to modern life. He explains how his entire outlook was altered by having to teach ex-service students at the A.A. immediately after the War. He found that mere recitation of what had been dogmas did not impress men who had had an experience of life, stimulated by the upheaval through which they had passed. They must have reasons for everything.

*

In searching for reasons, Mr. Duncan had to revise or reject much of what he had previously held to be normality ; he had to take an entirely new view of architecture in order to reconcile it with modern conditions.

*

In other words, he formulated a new and metaphysical basic creed. Would that all our so-called "Modernists" could say the same of themselves ! That is what we chiefly lack in our contemporary design in all spheres.

THE HARM THAT ART SCHOOLS DO

A student who had just left a famous art school came to me for advice this week. She wanted to design furniture and/or textiles. She showed me drawings, in the pastel-nursery-rhyme-book style, of furniture designed with bland indifference to the human shape. A house had been casually assembled on paper to accommodate this furniture.

*

Nobody who had been taught to use his eyes with any critical judgment of the form of things could have committed this stuff.

*

But the art-sharp who had *trained* this student had given her strident testimonials to record his satisfaction with her work. (He occasionally exhibited in oils.)

*

Her textile designs indicated a stunted but promising inventiveness. It had never occurred to her that textiles had to be made by a machine. Nobody had ever hinted that the study of textile production might be instructive and stimulating. She had been carefully screened from horrid machinery.

*

That's art, that was !

*

Here was no exceptional case. I am often confronted in this way with the incapability of most art schools to train designers. Art to the English still means pictures, coloured photography, *all 'and done !*

*

This view of art inspired a recent article in *The Children's Newspaper*, entitled "Poor Prospero." As good a bit of muddle-headedness about Mr. Eric Gill's group, Prospero and Ariel, on Broadcasting House, as ever I read. I could hear the tittering of a decayed gentlewoman running through every sentence.

*

But is the editor of *The Children's Newspaper*, by teaching the young idea how to shoot at what he can't understand, doing more or less harm than art masters who teach the young idea how to highfalute and call it "training in design"?

*

The provider of juvenile art-fodder said that Mr. Gill's work is "poor sort of humour in stone." What he wants is something light and fairy-like. I suggest that Sir John Reith orders wings and spangles for Ariel. Trousers, too, Mr. G. G. Mitcheson, M.P., would doubtless add.

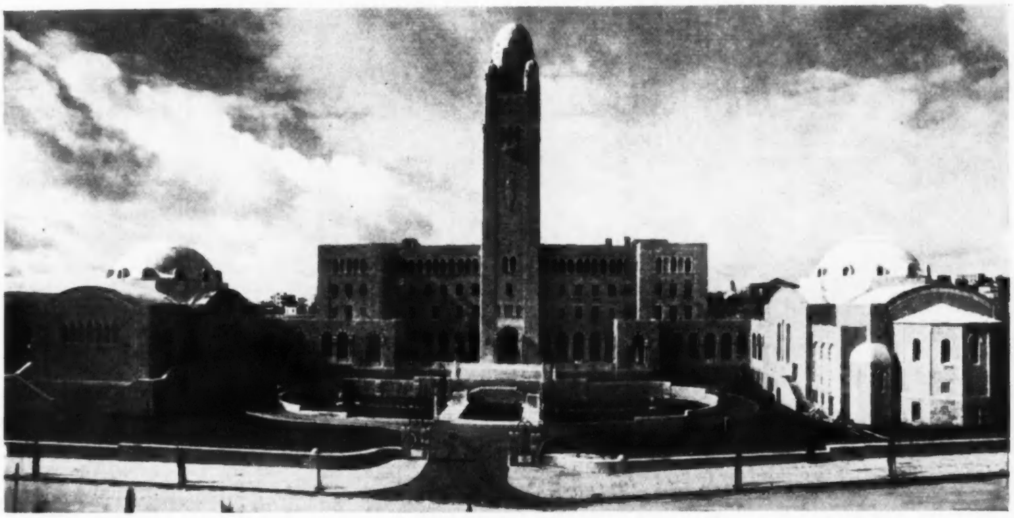
*

ALL GOD'S CHILLUN IN TROUBLE

Wings can be troublesome things, especially when affixed to angels. I heard that an ecclesiastical committee was floored the other day when they criticized the avian proportions of some angelic adornments for a church. The designer told them that they were "insulting the kingdom of eternal values !"

*

The laboratory view of the comparative anatomy of angels was given some years ago by Professor J. B. S. Haldane in *Possible Worlds*. He said : "An angel whose



To mark the Easter formal opening by Lord Allenby of the new Y.M.C.A. building in Julian's Way, Jerusalem, the carillon of thirty-six bells, cast at Croydon for the 160-foot belfry tower, was brought into use. The building, which has been carried out in limestone at a cost of £400,000, is the gift of American benefactors, and is intended to serve as a centre for students in, and visitors to, the Holy Land. It has been stated that it was the intention of the creator, Dr. Harte, to symbolize the position of Jerusalem as the focus of three faiths—Christian, Judaic and Islamic; hence the combination of architectural styles. On the second floor are classrooms; the two floors above are a hostel. In one wing is a music-room, in the other a gymnasium, with, below it, a swimming pool.

muscles developed no more power, weight for weight than those of an eagle or a pigeon would require a breast projecting for about four feet to house the muscles engaged in working its wings, while, to economise weight, its legs would have to be reduced to mere stilts."

*

I would like to make it compulsory for every student of architecture to read two of the essays in that book. First, *On Being the Right Size*, from which I have just quoted, and secondly, *On Scales*. They would help to make the mind flexible for dealing with concrete problems.

*

WHAT A NOISE !

I was sitting on a wall talking to a barrister. He was in plain clothes.

*

"Do you know," he said, "that out of the enormous population of these islands a mere handful, a paltry 6,000, are architects? But the noise they make! Do you realize what a noise you make—relatively speaking?

*

"Why do you make a noise? Have architects always made a noise? Or is something wrong? I would like to know.

*

"I mean, you know, 6,000 to how many millions is it?

*

"I say, it really is very creditable of you to get your word in."

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, April 19

INSTITUTION OF WELDING ENGINEERS. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. Three films depicting: (1) Automatic Metal Arc Welding; (2) Automatic Flash Butt (Resistance) Welding; and (3) Oxy-Acetylene Welding. 7.45 *p.m.*

Thursday, April 20

LONDON SOCIETY. Visit to Rotunda Organ Works, 234 *Ferndale Road, Brixton, S.W.9.* 2.30 *p.m.*

WEST YORKSHIRE SOCIETY OF ARCHITECTS. At 62 *Woodhouse Lane, Leeds.* Annual General Meeting. 7 *p.m.*

INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, Victoria Embankment, W.C.2. "The Heating of Domestic Pendant Lamp Fittings and their connecting leads" (Electrical Research Association Report). By P. D. Morgan, M.SC. (Eng.), H. G. Taylor, M.SC. (Eng.), and W. Lethersich, B.SC. 6 *p.m.*

Friday, April 21

LONDON SOCIETY. At the Royal Society of Arts, John Street, Adelphi, W.C.2. "The Romance of Public Health." By James Fenton, M.D. 5 *p.m.*

Saturday, April 22

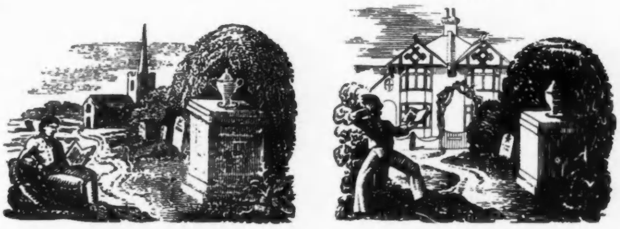
Sunrise 5.51 a.m. Sunset 8.7 p.m.

Monday, April 24

R.I.B.A., 9 Conduit Street, W.1. "Competitions—Past and Present." By H. V. Lanchester, F.R.I.B.A., and Percy E. Thomas, O.B.E., F.R.I.B.A. 8 *p.m.*

Tuesday, April 25

LONDON SOCIETY. Visit to South Africa House, Trafalgar Square, S.W. 3 *p.m.*



The reverie turned nightmare. A moral phantasy from a reader who pictures a horrific change in the elegiac scene of the tailpiece to our correspondence pages, unless we find an answer—and quickly—to the question, "What is to be done about this?" that we persist in asking. We ask it again on page 529 of this issue, and shall continue to do so.

NEWS

◆

POINTS FROM THIS ISSUE

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◆

A LONDON CLUB FOR SALE

The Junior Athenæum Club, one of the most unusual buildings in London, is offered for sale. It was designed in 1849 by a distinguished architect from Paris, M. Dusillon. The building owner insisted that all the workmanship should be French, and in the fashion of the day. The inlays of coloured and polished stone were at that time an absolute novelty in London street architecture.

Recent contributors to the subscription list of the Special Committee for Public Relations of the Building Industries National Council are as follows:

Mosaic & Terrazzo Co., Ltd., £2/2/0; Venesta, Ltd., £10/10/0; Manchester Brick Mfrs. Association, Ltd., £105/0/0; Nottingham and District Brick Mfrs. Association, £25/0/0; Frederick Braby & Co., Ltd., £5/5/0; Henry Williamson & Co., Ltd., £10/0/0; Greystone Lime Sales, Ltd., £25/0/0.

Subscriptions to the fund should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

THE SMOKE PROBLEM

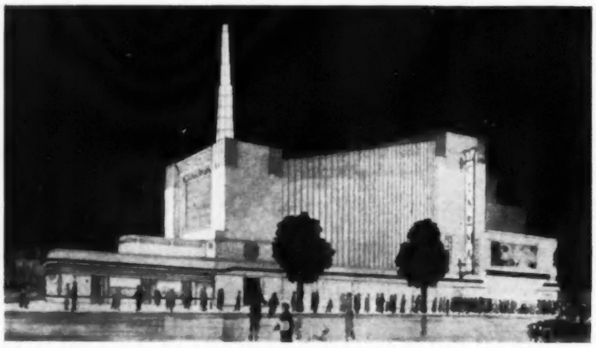
A meeting of local authorities in the Merseyside and South West Lancashire district, held at Liverpool last week, decided to form a regional Advisory Committee for this area to deal with the smoke problem.

It is hoped that as a result of a memorandum addressed by the Society to 130 local authorities, similar committees will be set up for Tyneside, Teesside, North-East Lancashire and the Potteries.

PORTSMOUTH CATHEDRAL EXTENSIONS

Portsmouth Cathedral is to be extended at once. This is in accordance with the wishes of two anonymous donors, who have given £9,000, so that the plans prepared by Sir Charles Nicholson may be proceeded with without delay. The additional land required has already been bought. Sir Charles's plans are to be submitted at once to the Central Council of the Church Assembly for the Care of Churches. It is estimated that the cost of the building will be in the neighbourhood of £70,000.

A CAMERA - CINEMA



This cinema has been designed on functional lines in concrete. The effect externally is rather that of a camera; the corrugations, corresponding to the bellows, are required internally for acoustical effect. The architects are Forbes and Tate, associated with Torben Laub.

PROFESSOR REILLY ON SLUMS

Professor C. H. Reilly, F.R.I.B.A., at the annual meeting of Liverpool Improved Houses, Ltd., said he liked some of the older slums of Liverpool and Manchester architecturally.

With whitewashing machines the fronts of the houses could be treated, and the doors and the windows should be painted in brilliant colours. Clipped myrtle trees could be brought back, and if the cobbles were cemented over they would be better for playing and dancing. The slum would then be a comfortable place in which to live.

IRISH ARCHITECT'S TOUR

Mr. Vincent Kelly, architect, who is a member of the Committee of Reference set up to advise the Irish Minister for Justice on the allocation of the moneys for voluntary hospitals from the sweeps, has returned to Dublin after a six weeks' tour of Continental hospitals.

In his tour Mr. Kelly visited 52 hospitals in France, Switzerland, Czechoslovakia, Germany and Holland, and concentrated on hospitals which had been built within the last two years.

Mr. Kelly is to deliver a lecture on the subject to the R.I.B.A.

MECHANICAL ENGINEERS

The Institution of Mechanical Engineers is to hold its annual summer meeting this year in Edinburgh during the week beginning May 29.

A GLASS CONVENTION

The British glass industry is holding its Third Convention at Buxton from May 18 to 20. Sir Max Bonn, K.B.E., will preside and there will be addresses and discussions by well-known authorities on such questions as co-operation in industry, hours of work, recent technical developments in the glass industry, education and research.

A brochure giving full details of the programme in preparation and can be obtained very shortly from the Honorary Secretary of the Convention, Mr. Geoffrey Marchand, M.A., Director of the Glass Manufacturers' Federation, Norwich House, 13, Southampton Street, High Holborn, London, W.C.1.

WILTON HOUSE LOAN EXHIBITION

At Wilton House, near Salisbury, for four centuries the residence of successive Earls of Pembroke and Montgomery, there will be staged from June 26 to July 1 a loan Exhibition of Historical Treasures from the Counties of Berks., Bucks., Oxon., Dorset, Hants., the Isle of Wight and Wiltshire.

The State Rooms will be on view throughout the week of the Exhibition, so that visitors may enjoy the famous collection of antiques and pictures.

EXHIBITION HALL FOR SALFORD

Plans for a large exhibition hall on Salford cattle market site, similar to the London Olympia, will shortly be submitted to the Salford City Council.

ROYAL SANITARY INSTITUTE

The preliminary programme of the 44th Congress of the Royal Sanitary Institute, to be held at Blackpool from June 17 to 24, has just been issued. The officers for the architecture, town planning and engineering section, the meeting of which is arranged for Friday, June 23, in the Winter Gardens, at 10 a.m., are as follows: President: L. P. Abercrombie, M.A., F.R.I.B.A. Recording Secretary: Mr. Percival T. Harrison, M.INST.C.E., Engineer and Surveyor, Finchley U.D.C. Local Secretaries: Messrs. Halstead Best, F.R.I.B.A., F.S.I., 20, Clifton Street, Blackpool; and J. C. Robinson, F.R.I.B.A., Borough Surveyor's Office, Blackpool.

INTERNATIONAL BUILDING CONGRESS

The International Congress of Building Societies will meet in London from June 5 to June 9.

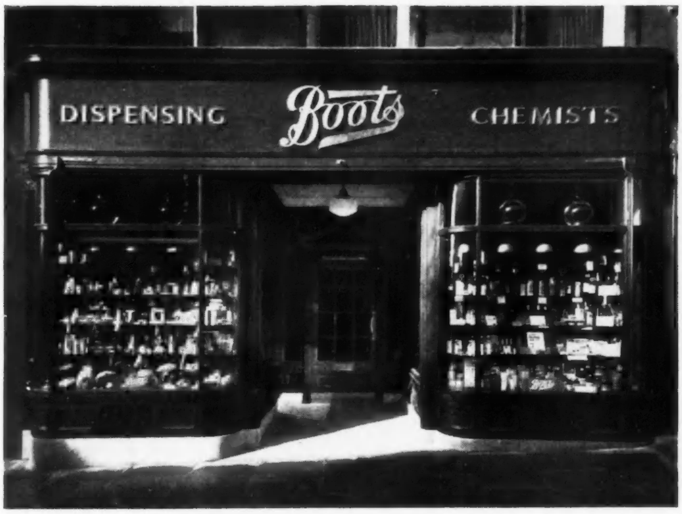
Sir Enoch Hill, Chairman of the Council of the National Association of Building Societies, will be the President of the Congress.

The British Government will give a reception to the delegates at Lancaster House on Wednesday, June 7, and on the following evening there will be a reception and dinner at Guildhall.

CHANGE OF ADDRESS

Messrs. Tecton, Architects (A. M. Chitty, L. A. Drake, M. A. S. Dugdale, V. Harding, B. Lubetkin, G. H. Samuel and F. Skinner) have removed to new offices at 57 Haymarket, S.W.1. Telephone No.: Whitehall 5757.

SHOPFRONT IN BATH



A shopfront just completed in Milsom Street, Bath, from the designs of Percy Bartlett, in which the endeavour has been to preserve something of the eighteenth-century feeling for which this street is noted. The front is carried out in medium-polished teak on a Bath stone plinth with bronze vent grates, and a York stone entrance floor.

STEELWORK CONTRACT

Messrs. Dorman Long and Co., Ltd., of Middlesbrough, have secured the contract for the structural steelwork required for the first section of the extensions to the Fulham Generating Station. The contract price is £383,616. Messrs. Dorman Long have agreed to carry out the work within a period of 39 weeks from the date of the Engineer's order to commence the works. The times required by the various tenderers ranged from 24 weeks (also by Messrs. Dorman Long and Co., Ltd., at an extra cost of £23,525) to 208 weeks; whilst the highest tender was for £557,808 5s. for 169 weeks.

THE BATTLEFIELD OF WATERLOO

Sir William Davison, in the House of Commons last week, asked the Secretary of State for Foreign Affairs if he would state what representations had been made to the Belgian government for the continued preservation of the battlefield of Waterloo and the historical buildings thereon, such as the farm of Mont Saint Jean, the farm of La Belle Alliance, Hougoumont, etc., for which a contribution was made by this country in 1914 towards compensation of the owners of the land.

Mr. Eden, the Under Secretary, said that no contribution had been made out of public funds from this country towards compensation of the owners of land on the battlefield of Waterloo, and no representations had been made to the Belgian Government.

Sir W. Davison asked if his hon. friend was aware that contributions were made from this country, even if not from public funds, and as this was a matter in which this country was very much interested, did he not think it desirable, at any rate, to communicate with our Ambassador regarding the proposals which had been mooted in Belgium for building on the field of Waterloo.

Mr. Eden said if Sir W. Davison had any information on this question he would certainly consider it.

R. I. B. A.

THE NEXT MEETING

On Monday next, April 24, papers on "Competitions—Past and Present," will be read at the Institute by Messrs. H. V. Lanchester, F.R.I.B.A., and Percy E. Thomas, F.R.I.B.A. The meeting will begin at 8 p.m.

LONDON OF THE FUTURE

In a lantern lecture at the R.I.B.A., on Wednesday last, on "What London Might Be," Mr. Knapp-Fisher, F.R.I.B.A, pointed out the need for immediate action if London is to be saved before it becomes completely spoiled by rapacious get-rich-quick merchants, and its "ever-spreading rash of noxious buildings." Further extracts from the paper are printed below:

A brief historical survey showed that even in Queen Elizabeth's day attempts were made to stop the too rapid growth of London by making it illegal to build within three miles of the city. Cromwell increased this distance to ten miles, but nevertheless the city still continued to grow in a haphazard fashion, as the town planning schemes of Wren and Evelyn, etc., were unfortunately never carried out. The eighteenth century, which has left us its heritage of well-ordered squares and charming and neighbourly houses, has given us the most comprehensive scheme for planning London up to the present, and now, after the chaos and squalor left by the Industrial Revolution, is the time to plan once more.

In our eagerness to plan we must not forget London's essential individuality and character, a London on stereotyped lines, dressed in a strait jacket, or ready-made clothes, is not the London at any rate of my desire, or a London which could, I think, continue to dwell in our affections; no! the spirit of London must be retained.

Let us catalogue the improvements we can fight for: A London without Smoke. Less noise (far less noise). Fewer disfiguring advertisements. No slums. Better all round planning, and better buildings. More intelligent lighting. No disfiguring petrol stations.

Again, let us take one or two specific problems. Cannot we put under ground and electrify all routes into the city to Holborn, St. Paul's, Cannon Street, etc., indeed, all railways within a certain radius, and cannot we build over some of the 40 miles of railway tracks and 350 acres of sunken land, that there are in London, utilizing the space for buildings, parkways and open spaces, as is done in parts of New York?

Can we not hope for better traffic facilities, with over- and underground routes for the main traffic arteries, separating these arteries from what we might call traffic veins?

What are we going to do with our squares—the squares of Mayfair and Belgravia, of Bloomsbury, and the West, those that are left to us? I am sure the only possible answer can be that, whether these squares are rebuilt within the next few years or converted for some purpose, they *must* be dealt with as a whole and not in piecemeal fashion—the sort of haphazard building which looks for all the world like the mouth of some semi-toothless hag—and yet the unity and restfulness of a large number of these squares have already been irrevocably destroyed, I consider, to our lasting shame. Oh! the urgency of a plan. Will London buildings be allowed to go higher? Picture what London might be with another 50 ft. on to its buildings; 80 ft. was the limit a short time ago, now 100 ft.—what next? Again, wanted, a plan with areas as to heights properly scheduled.

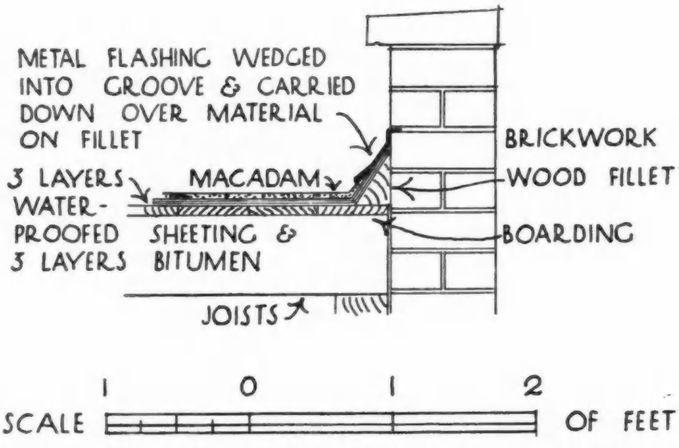
What of the south of the river? Here is open to us a wonderful opportunity when the time comes, which is of vital national and civic concern; great new buildings on what is known as the Lion brewery site; with a river frontage with a thought for the mystery that such a winding frontage presents, and a care for grass and trees, and no dirty steam trains.

And what of the construction of our buildings? I should be sorry to see no buildings built for posterity, and I think it might be possible in our plan to arrange for certain buildings to be of a more permanent kind, but most to be definitely restricted as to lease and life. Only in this way would we gradually get a synchronization of the many factors which are essential to any comprehensive plan.

On what lines shall we develop air travel? The position and design of airports must be carefully watched and controlled; there is no reason, with proper foresight, why we shouldn't lead the world in this respect. Then we must take advantage of the Grid system of electrical power, which will provide the means for a better distribution and decentralization of industry than is possible with coal.

I believe that we should hold on like grim death to *all* our remaining open spaces near London, and that, in spite of ever-quickening services to and from the metropolis, we should preserve what country is left near in for farms, horticulture and recreation.

THE WHITE HOUSE,


METAL FLASHING WEDGED INTO GROOVE & CARRIED DOWN OVER MATERIAL ON FILLET
BRICKWORK
3 LAYERS WATER-PROOFED SHEETING & 3 LAYERS BITUMEN
MACADAM
WOOD FILLET
BOARDING
JOISTS
1 0 1 2
SCALE OF FEET

Details of the coping shown in the drawing on the facing page.

COMPETITION

NEWS

SURBITON HOSPITAL

Conditions for the competition for the proposed new hospital buildings to be erected at Hill Manor, Ewell Road, Surbiton, have now been drawn up by the assessor, Mr. C. Ernest Elcock, F.R.I.B.A.

THE BUILDING CENTRE

It is understood that the result of the competition for cottages to be erected at an economic rent, organized by the Building Centre, will be announced next week. We also understand that the Building Centre is arranging to erect a pair of sample cottages from the winning design of the above competition on a site in the West End.

ROYAL SOCIETY OF ARTS

By permission of the Board of Governors of the Imperial Institute, the public exhibition of works sent in for this year's open competition of industrial designs, organized by the Royal Society of Arts, will be held in the Exhibition Pavilion of the Imperial Institute, South Kensington, London, S.W. Full particulars of the scholarships and prizes offered by the Society and other bodies can be obtained from the Secretary of the Royal Society of Arts, John Street, Adelphi, London, W.C.2. They include designs for architectural decoration, a cinema vestibule, shopfronts, exhibition stands, inn signs, glass screens, memorials, etc.

Applications for entry forms, labels and instructions must be sent to the Secretary of the Society between May 1 and May 8, the last day for receiving entries being May 20. Designs entered for the competition will be received at the Imperial College of Science and Technology, Imperial Institute Road, South Kensington, London, S.W., between June 7 and June 9. In the case of distant overseas competitors, entry forms, fees and designs will be received up to July 1. After the judging, which takes place in July, the prize and accepted designs will be exhibited to the public in the Exhibition Pavilion at the Imperial Institute from August 5 to August 31 (Sundays included).

Competitions Open

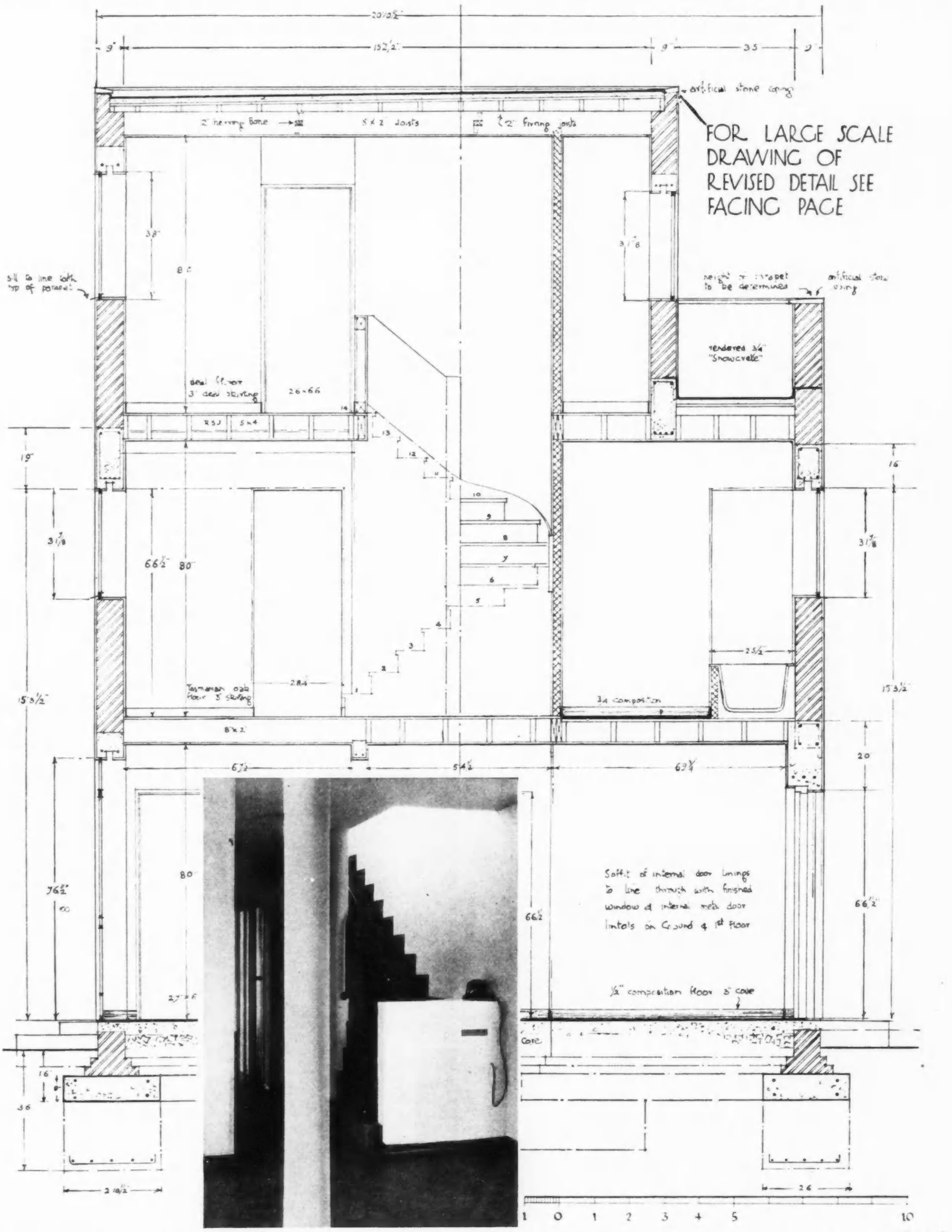
May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

ON THE AIR

On Tuesday next, April 25, the second of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. The subject, "Clothes," will be discussed by Messrs. James Laver and Edward Halliday.

CAMBRIDGE : BY GEORGE CHECKLEY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9"
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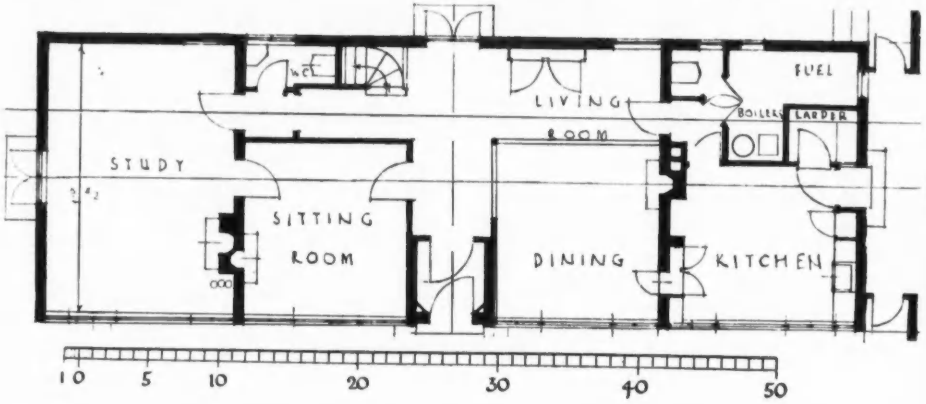
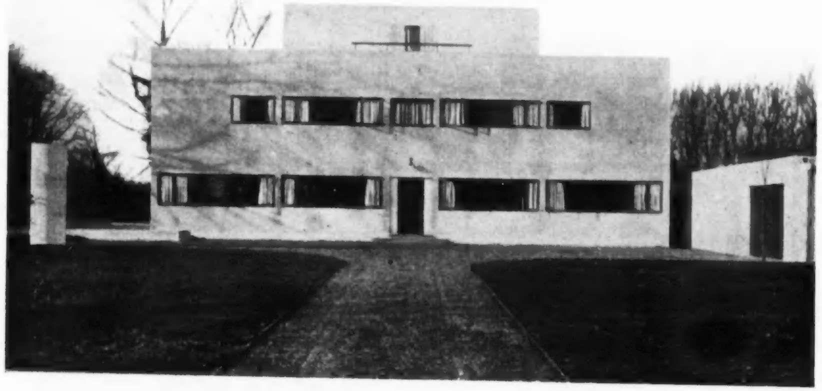
9"
3'5"
9"
artificial stone coping
FOR LARGE SCALE DRAWING OF REVISED DETAIL SEE FACING PAGE
2" herring bone
8 x 2 Joists
2" firring joists
sill to line with top of parapet
3'8"
8'0"
3'1⅞"
height of parapet to be determined
artificial stone coping
rendered ¾" "Snowcrete"
deal floor
3" deal skirting
2'6 x 6'6
R.S.J.
5 x 4
1'9"
1'6"
3'1⅞"
6'6½"
8'0"
3'1⅞"
Tasmanian oak floor & skirting
2'8¼
2'5½
¾ composition
15'3½"
15'3½"
8 x 2
6'½"
5'4½"
6'9⅞"
2'0
Soffit of internal door linings to line through with finished window of internal metal door lintels on Ground & 1st Floor
7'6½"
8'0
6'6½"
6'6½"
2'7 x 6'6
½" composition floor & cove
cove
1'6
3'6
2'10½"
2'6
1 0 1 2 3 4 5 10

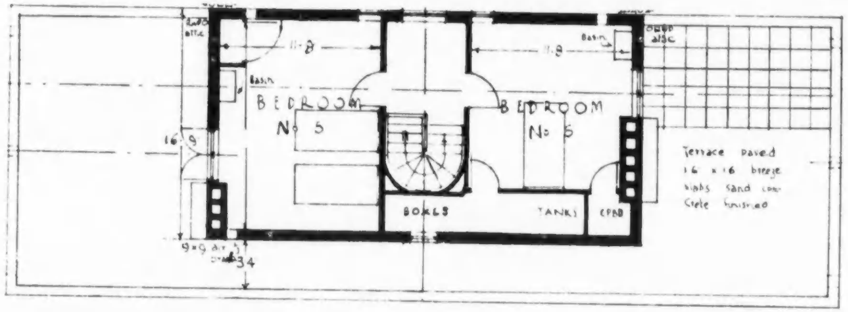
A cross section through the staircase; other illustrations and notes appear overleaf.

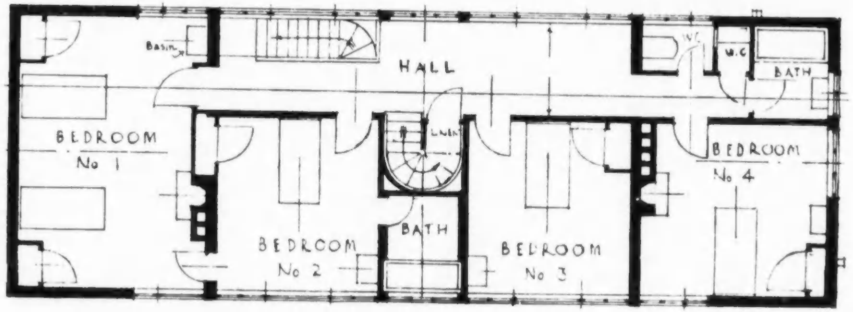
TWO HOUSES AT CAMBRIDGE : DESIGNED BY GEORGE CHECKLEY

NO. 1: THE WHITE HOUSE, CONDUIT HEAD ROAD


FUEL
W.C.
LIVING
ROOM
BOILER
LARDER
STUDY
SITTING
ROOM
DINING
KITCHEN
10
5
10
20
30
40
50




BEDROOM
No 5
BEDROOM
No 6
Basin
Basin
11-8
11-8
16-9
BOXES
TANKS
CPBD
Terrace paved 16 x 16 breeze slabs sand concrete finished
9 x 9 air shaft
34


Basin
HALL
W.C
W.C
BATH
BEDROOM
No 1
LINEN
BEDROOM
No 4
BATH
BEDROOM
No 2
BEDROOM
No 3

More general construction in reinforced concrete would have been preferred, but, on account of cost, the reinforced work was confined mainly to the framing of the elevations. The spans are rather large to be strictly economical, but where all the rooms are small the best practical arrangement was to span from wall to wall. For the first house, where feasible, the use of blue brick piers instead of the reinforced columns was considered, but as the saving was comparatively small and the structure not quite as reliable, the idea was abandoned. For the foundations the ground was very bad in both cases, and a raft would normally have been used.

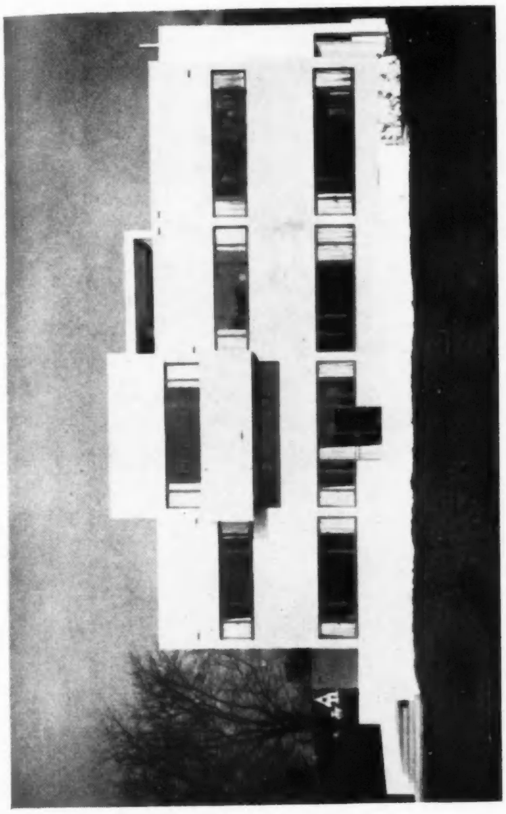
One of the supplements with this issue gives details of the skeleton of No. 2. Nine-inch brick infilling for the frames is employed to agree with reveals in the ordinary unframed walls and to comply with local building requirements.

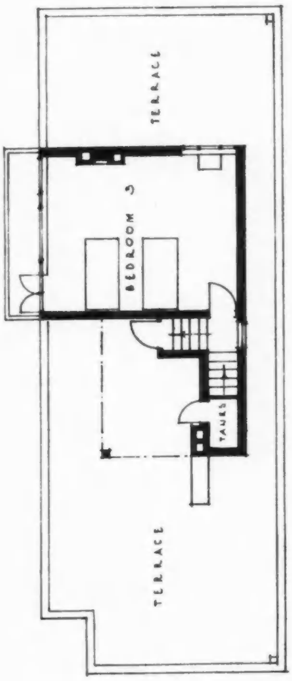
Reinforced concrete first floors and roof flats were originally intended, but were ruled out again on account of cost. Roofs are of 8 ins. by 2 ins. joists, with cross firring joists 2 ins. by 2 ins. to 2 ins. by 5 ins. to falls, boarded and covered with three layers of bituminous felt and half an inch of tarmac. The cross joists give good ventilation, adequate insulation and space for services. The terraces on the first house are as above, but with 1½ in. breeze concrete slabs, brought up in Portland and sand, cast in situ, in place of macadam; the upper roof, not being used as a terrace, is without breeze slabs.

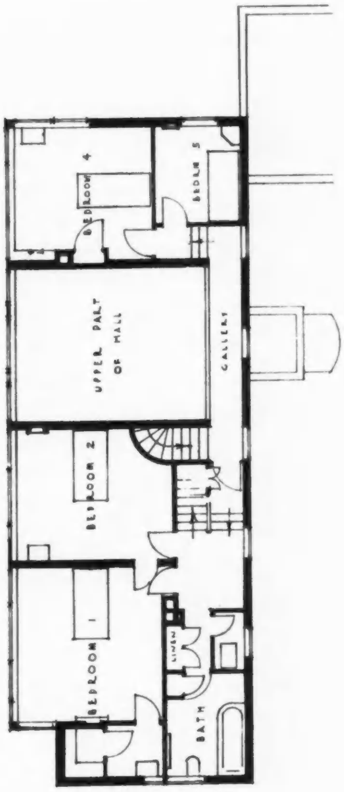
For the windows, ordinary standard metal casements were used, with glazing bars and, in the case of the big panes, mullions, omitted, effecting a saving of about £75 in each house. The metal doors are purpose-made; also the vertical windows on the entrance front of house No. 2.

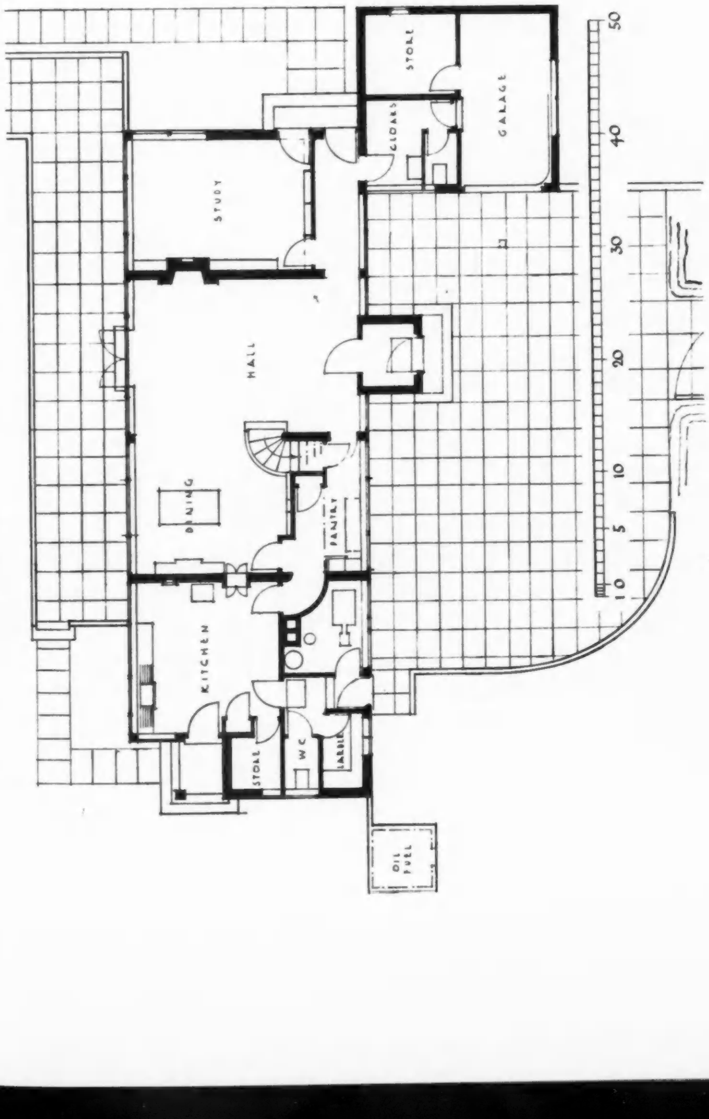
The cost of the houses was, respectively, £2,400 and £2,500; and in the latter case the figure for the oil-burning heating and hot water installation was £300.

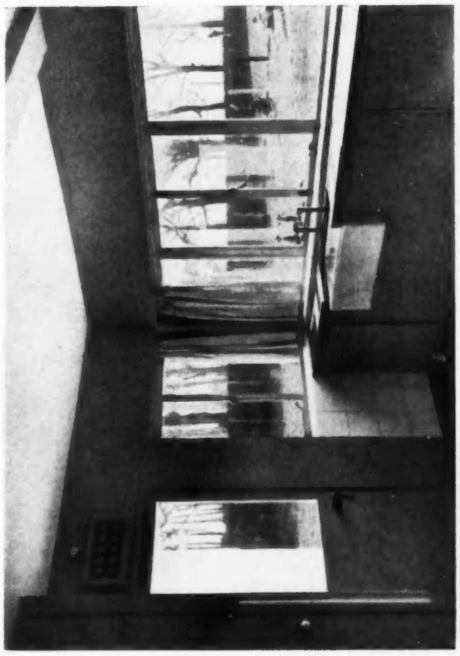
NO. 2: THURSO HOUSE, CONDUIT HEAD ROAD



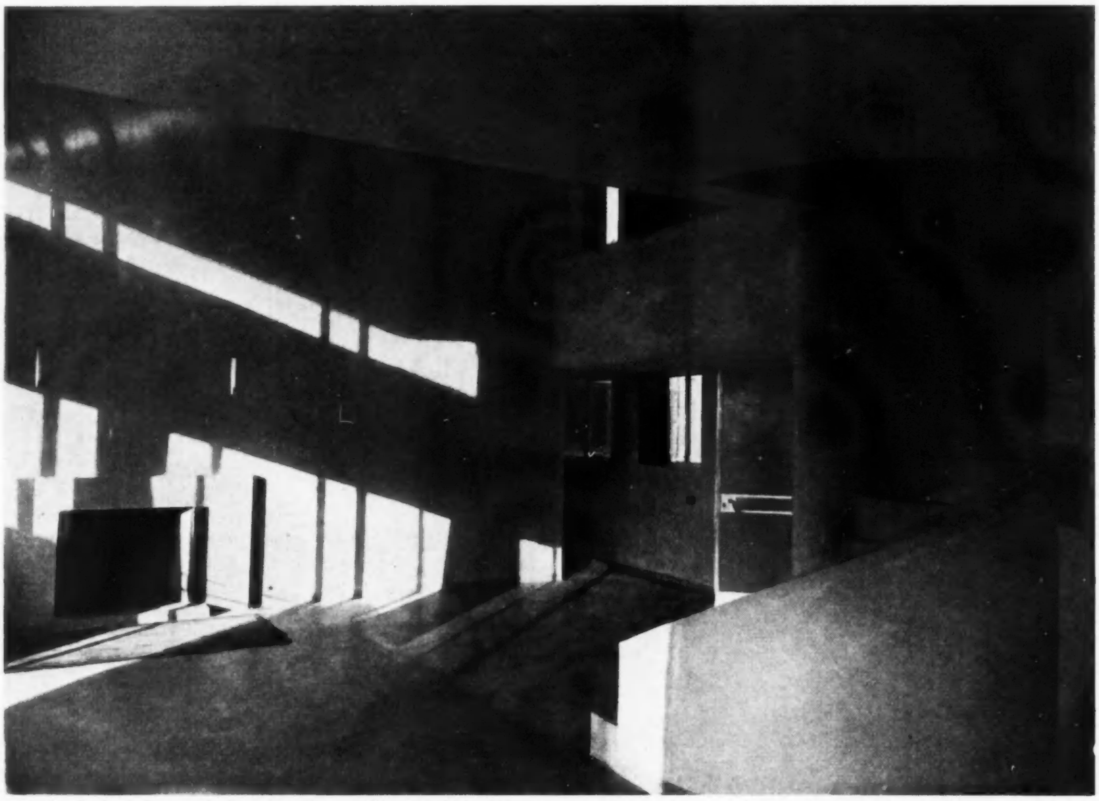

TERRACE
BEDROOM 3
TANKS
TERRACE


BEDROOM 4
BEDRM 5
UPPER PART OF HALL
GALLERY
BEDROOM 2
BEDROOM 1
LINEN
BATH


STORE
GARAGE
CLOAKS
STUDY
HALL
DINING
PANTRY
KITCHEN
STORE
WC
LARDER
OIL FUEL
0
5
10
20
30
40
50



THURSO HOUSE, CAMBRIDGE



The hall of this house, designed by George Checkley (also illustrated on the previous page) extends through two floors. The above photograph is taken looking towards the front door, and shows the gallery, overlooking the hall, that spans it at first-floor level.

LETTERS *FROM* READERS

P. QUENTIN SMARTERLY (Jnr.)

A LAYMAN

J. H.

A. H. OUGH
Past President, Devon and Cornwall Architectural Society

The Speculative Architect

SIR,—I have come to the conclusion that if there is to be an improvement in speculative building work, the architect may have to forgo many personal ideas about etiquette in the old sense of the word. He need lose no dignity in designing buildings to sell, but he must, of course, have absolute control. He must forgo many preconceived ideas of quality in materials and workmanship for houses which are to be sold *really cheaply*.

Capital is easy to obtain ; the question is the method of procedure. The architect may (1) employ labour, buy materials and see the whole thing through, or (2) do the designing, and employ a builder ; thereby having less responsibility but netting less profit. (Smarterly's method.)

It seems to me that the biggest chances are around the big cities, where there are many more people of all classes, or of one class, to draw from. There are, I think, the following people who need a different type of house :—

(*a*) The artisan, clerks, "respectable people," lower middle class.

(*b*) Professional newly-married people, who are making a start, but have little money.

(*c*) Retired people of all grades, from grocers to colonels.

The tastes of these people vary, but in some cases overlap. Your retired colonel, doctor, etc., or even widows of gentry, would not buy a house which says "retired grocer" or "quite successful commercial traveller," but would buy a house that is quiet and seemly, *although it may have exactly the same area as the grocer's house.*

I happen to know of cases of this sort, and there is no doubt that the English social system has great force in matters of this kind. I have asked people why they settled in the unpleasant speculative house, and they say always : "There was nothing else to be found of the size we could afford."

If I were going in for building houses I would try to make it economically possible to put a refrigerator in the kitchen, gas to every fire-place, and to paint the bathroom walls. In matters like that there would be a pull over the other fellow. But I know I should not have to be scrupulous about the "fourths" timbers in the roof, or the bricks composing the inner walls.

The architect has too long been exploited by the builder. I have prepared plans *and* elevations for builders, and in two cases only have my elevations been carried out with a few variations to suit the builder's fancy. The roof in every case spoils the design. I have given details for chimney caps and windows, although it does not pay me to do so. But the devils *will* ignore them; put gables where I put hips, and decorate these gables with enormous barge boards.

There is a queer human psychology that makes people like these nasty villas. You will notice that the rooms are always 9 ft. 6 ins. or 9 ft. ground floor, and 8 ft. 6 ins. first floor, which seems extravagant at first sight, but people like to feel they are having lofty rooms, and if the architect built houses with 8 ft. high rooms to economize, and the choice of a prospective buyer fell between the architect's house and the speculative builder's, he would, I think, plump for the builder's house because of the nice lofty rooms and the nice curved bay window.

I have not mentioned the house for the poorly-paid labourer or dole-paid man. That is another matter which is now about to turn from the hands of the architect into those of the speculative builder, since the Government propose to stop financing housing work. Of course it will probably be a question of profits on rents, and not on sale, but it may be the architect's opportunity, for, if the Government *do* decide on this course, the results will be worse than ever they have been.

P. QUENTIN SMARTERLY, JNR.

Circular 1331

SIR —The publication of the Ministry of Health Circular No. 1331 on the subject of Slum Clearance will be welcomed by all, and not least by your influential paper.

This Five Years' Plan, however, offers opportunities for abuse as well as for blessings. If we are not to spend this time in preparing plans for what will be the slums of 1953 the architects of this country must here and now make their influence felt throughout the country in order to ensure that both plans and construction shall be of the best.

Your companion illustrations on p. 31 of THE ARCHITECTS' JOURNAL for January 11, 1933, entitled "Washing: A Tale of Two Cities," should be republished and broadcast to every local authority in order to set the pace and standard of ideas for new construction.

A LAYMAN

Technical Paper No. 7

SIR,—My attention has been called to Mr. Martyn's comments on my review of Technical Paper No. 7. He is entirely mistaken in assuming that what I wrote in the review was influenced in any way by annoyance. Why should I be annoyed when I am perfectly disinterested, and every word that I wrote was the result of sincere conviction, and of very careful consideration? Moreover, I believe that every word was fully justified in the public interest. In my opinion, the inadequacy of Technical Paper No. 7 is too obvious to warrant any difference of opinion, and I observe that the writer does not claim that it is other than I have stated.

Mr. Martyn states that I made numerous misstatements in my brief review. As I am familiar with the subject, I am in a position to prove that that is not the case. In apparent support of this statement, he adds that Mr. Swarbrick's book does not illustrate the Radial Calculating Sheet for measuring light on the vertical plane. If he will read my review again he will see that he is endeavouring to correct a statement that I never made.

Mr. Swarbrick's Calculating Sheets for measuring light on the vertical plane have been published elsewhere, as I know very well. He will find illustrations of them in the technical press, and in the paper by Mr. A. C. Stevenson, read at the International Congress on Illumination in 1931, to which I referred. A copy of this paper he will find in the R.I.B.A. Library, and, I believe, in the principal scientific libraries both in this country and abroad. Mr. Martyn gives no other evidence of my alleged misstatements.

From his letter, one would imagine that he is not aware that the photographic method of measuring daylight was recommended in the *R.I.B.A. Journal* of August 8, 1931, at the request of the Practice Standing Committee of the Royal Institute. He seems to think that I inadvertently overlooked the Droop Diagrams, illustrated in the second edition of Technical Paper No. 7. That was not the case. The fact is that the Droop Lines are distortions of lines that can be represented by simple ellipses on the Radial Diagrams for measuring light on the horizontal plane to which I referred. If ellipses are used, the accuracy of points upon the lines can be rapidly checked. The writer will find that Mr. Swarbrick called attention to this advantage on page 100 of his book on *Easements of Light*.

It seems so apparent that it is more advantageous to obtain all the data required for plotting on calculating sheets by means of photography, in one or two seconds, instead of in a matter of weeks by the old geometrical method, that it is difficult to imagine that anyone would seriously contend that a method of so much importance should not be included in a Government publication intended to assist practitioners who deal with Right of Light cases.

Mr. Martyn states that the Daylight Factor Photo-Theodolite cannot photograph buildings before they are erected, but he must not forget that, even when a building does not exist, it is possible to photograph the windows in the dominant tenement, and, by superimposing co-ordinate grilles of angles, to plot the portion of the non-existent building that could either originally or eventually be seen through the opening.

In this way, much time can be saved, and the possibility of many serious errors avoided, even when the building in question is not actually in existence. This is a very important matter, when the window openings are of irregular form, and not simple rectangles. J. H.

The Scope of the B.I.N.C.

SIR,—The Building Industries' National Council, for which Sir Raymond Unwin, P.R.I.B.A., is parentally responsible, appears at a time when the national effort to deal with the problem of unemployment should proceed from the general to the particular.

The two million men engaged in the industry, of whom two hundred thousand are without work, have now a central body prepared to devote skill and energy to the improvement of their condition.

This central body should be supported by local committees in every part of the country, and the organization already exists for their creation. The non-Metropolitan Societies of the R.I.B.A. are 49 in number, 30 being within Great Britain and Ireland; each is the accredited agent of the Institute in its district.

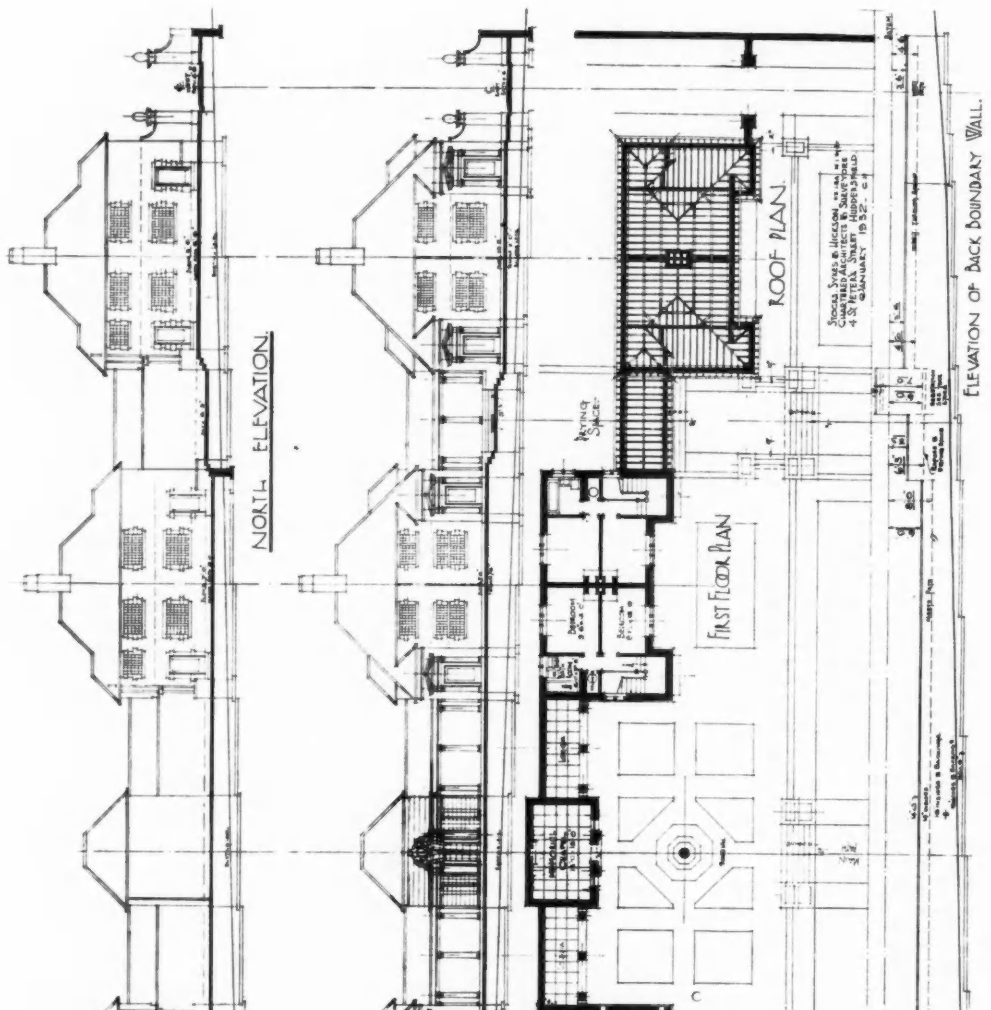
It only remains for these societies to appoint three members to sit with the representatives of the organizations of the builders, manufacturers and operatives, to discuss any questions arising locally and forward information and recommendations to the central body.

The decisions of the central body could be quickly and effectively communicated to the districts and passed to the authorities concerned with the support of the whole industry behind them. In my own Society we already have such a committee, which meets the Master Builders' Federation on purely local matters and is ready to extend its scope. The Society has recently adjudicated a very successful competition for prizes offered by a manufacturer for designs of the entrance fronts of semi-detached houses costing £850.

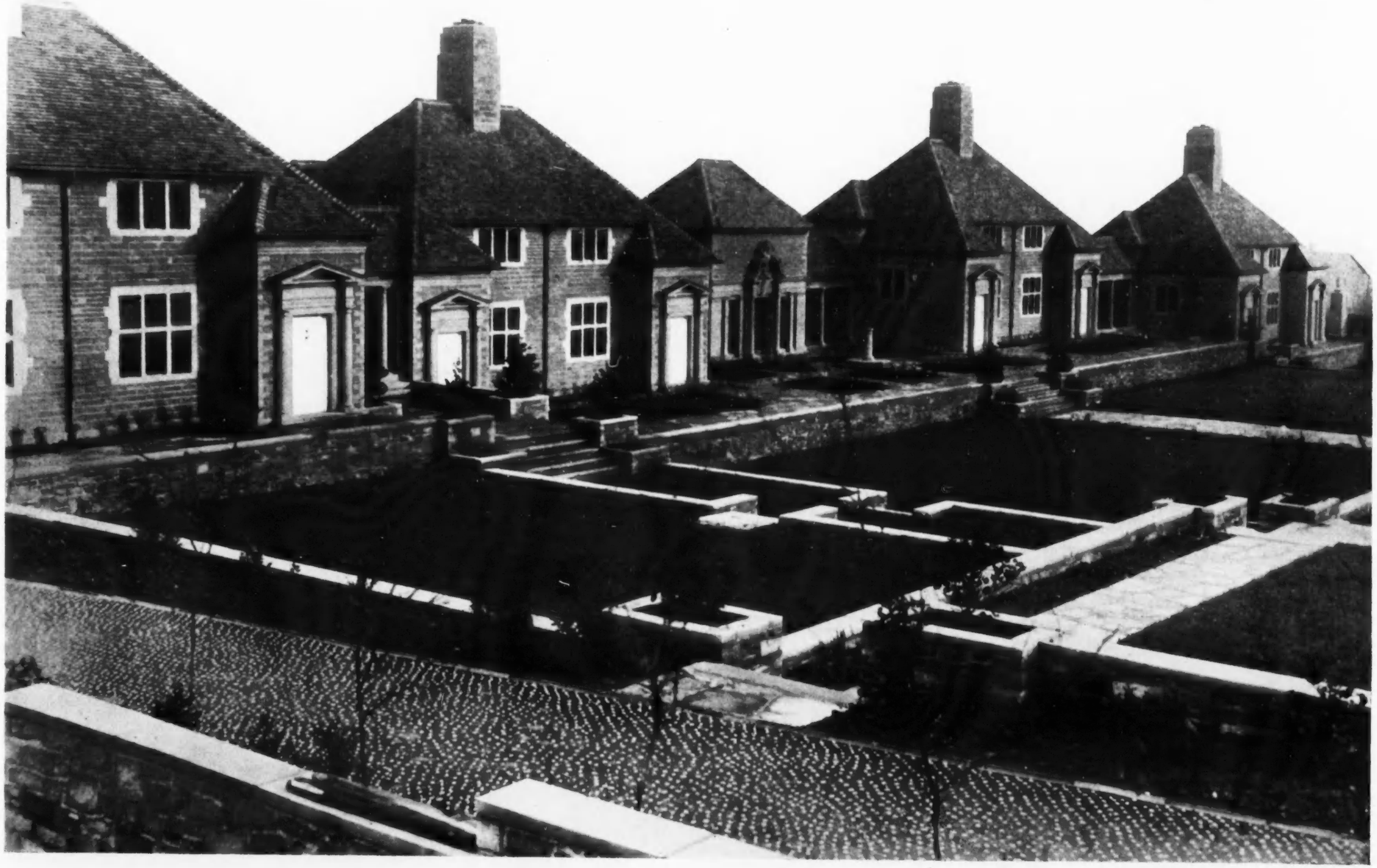
These examples are given as indicating the way to co-operation between architects, surveyors, contractors, manufacturers and operatives for a united Building Industry aiming at the efficient production of well-designed work, from the smallest cottage to the largest public building, and the guidance of those entrusted with the administration of public funds from the morass of blind economy to the firm ground of wise remunerative expenditure.

ARTHUR H. OUGH

THE ROEBUCK MEMORIAL HOMES, HUDDERSFIELD

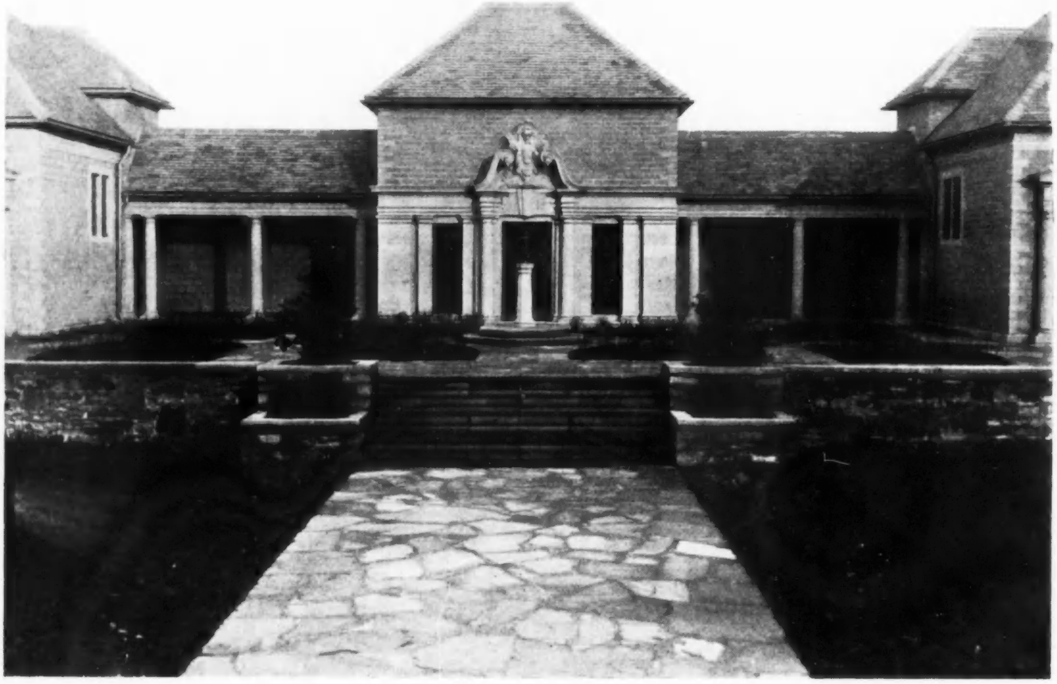

NORTH ELEVATION.
SOUTH ELEVATION.
ROOF PLAN
FIRST FLOOR PLAN
FOUNDATION PLAN.
GROUND FLOOR PLAN.
DRYING SPACE
DRYING SPACE
SCALE · 8 FEET PER INCH
ELEVATION OF BACK BOUNDARY WALL.
STOCKS SYKES & HICKSON
CHARTERED ARCHITECTS & SURVEYORS
4 ST PETER'S STREET HUDDERSFIELD
JANUARY 1932

Other views of the Memorial Chapel, about which the Homes centre, appear on page 528.



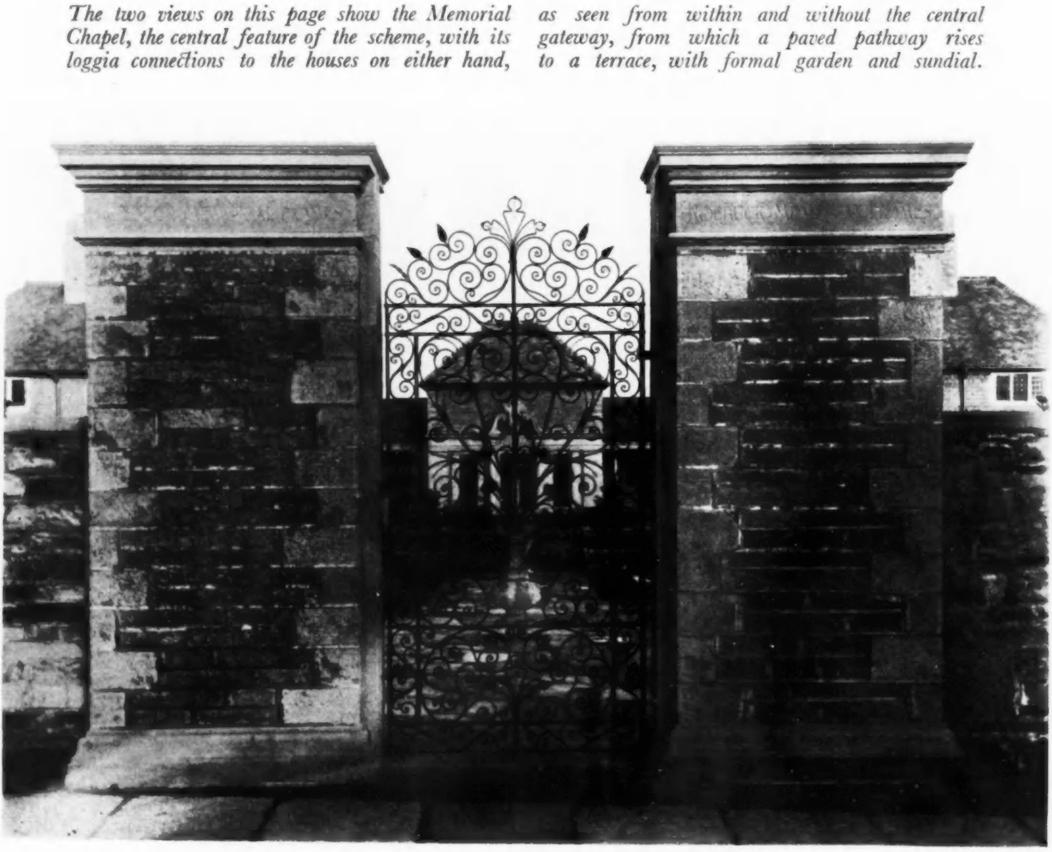
DESIGNED BY STOCKS, SYKES AND HICKSON

ROEBUCK MEMORIAL HOMES

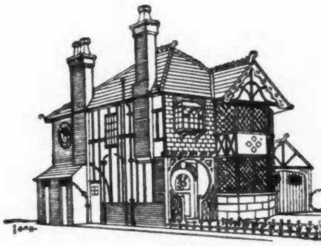


BY STOCKS, SYKES AND HICKSON

The two views on this page show the Memorial Chapel, the central feature of the scheme, with its loggia connections to the houses on either hand, as seen from within and without the central gateway, from which a paved pathway rises to a terrace, with formal garden and sundial.



WHAT IS TO BE DONE ABOUT THIS?



[If, through the Housing Bill, there is to be a revival of small house building, a full inquiry into contemporary small-house building practice is of immediate importance to architects, since there can be no question of the desirability of architect-control in the large-scale developments that must soon go forward.

The twentieth-century small house is a mass-produced industrial product in a new field of architecture. How to capture it for architects who could beat the speculative builder at his own game, alike in convenience, seemliness and cost?

It has been suggested that a group of architects might seek out a virgin site, well situated for modern transport, prepare a layout and detailed plans, financial calculations and so on, and proceed—in all respects as a building speculator would do—in obtaining capital and building finance.—ED., *A.J.*]

4. What the Public Want

[*By EDWIN GUNN*]

THE attitude of the architectural profession to the small house owner or would-be owner has for many years past been in the main either one of complete indifference ("these wicked things are beneath our notice") or of somewhat dictatorial endeavour to persuade the poor fellow that he couldn't really want what he thought he wanted, or if he did, he ought not to. It is no doubt highly desirable that he should in fact be dissuaded from some of his fancies, and a certain measure of success has actually attended efforts in this direction, as for instance the slight decline in the perverse preference for parti-colours in the painting of window and door frames, and the gradual disappearance of the transome from the window that is too small to carry it gracefully.

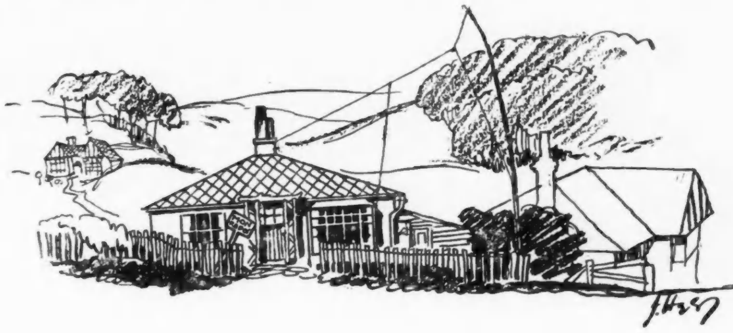
On the other hand, when architects saw plate glass used badly, it did not occur to them that it might be used well, and they launched an anti-plate-glass campaign, and tried to establish the supremacy of the leaded light. Now, when, at last, the diamond pane enjoys popularity and has a selling value, they begin to design intelligently in plate glass and agitate for its wider use. No wonder the layman is confused.

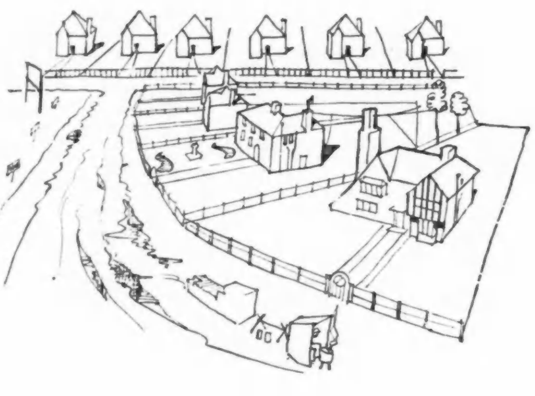
Apart from mere whimsicalities, there are features and items (what the Sales Expert calls "selling points") which seem to constitute legitimate demands on the part of the average householder, and these it is quite useless to evade. The Friday "Houseseekers' page" of almost any popular newspaper will afford a reliable guide to these points, and casual conversation with young people just becoming house-conscious will fortify the knowledge gained. I should put the main requirements of a practical nature (omitting passing whims such as "Tudor character") in the following order of importance :—

(1) Space for garage.
(2) Large windows.
(3) No sloping ceilings.
(4) Bays—the more the merrier.
(5) Tiled bathroom, with w.c. separate.
(6) Enamelled coke boiler, with radiators and hot towel rail.
(7) Compact kitchen with up-to-date fittings—tiled dado if possible.
(8) Plenty of electric plug points.
(9) Important-looking door-furniture (chromium at present in fashion).

It may be observed that none of these items relates particularly to the size, form, or aspect of principal living rooms or bedrooms. It seems to be the fact that the "labour-saving" character of the kitchen, and the sanitary glossiness of the bathroom are the matters of accommodation which now constitute the pride of their owners, and are exhibited to friends and acquaintances. However, some *rooms* are also required, and as little lead is gained from the actual demands made, it is necessary for designers to form their own conclusions. Personally, I have found that where the device of putting every possible foot of floor space into the main living room has been followed it has always proved popular, provided an alternative room—however small—is contrived for the quiet job or casual visitor. I am convinced that the front and back rooms about equal in size which the speculating builder so often provides are no more than the survival of an obsolete convention, and are no longer seriously regarded as a hall mark of respectability. The number of bedrooms cannot be standardized—the need of course fluctuates with the size of the family—even two is not necessarily the minimum when young married couples or elderly folk are considered, but in the intermediate stage between the first arrival of children and their departure from home, five bedrooms is not an unreasonable provision in a proportion of cases and as the home is not regarded today as a permanent institution, people move to a house that provides accommodation to suit their immediate requirements.

On the important question of cost, it is gall and wormwood to architects that the modern householder views cheerfully the expenditure of three or four hundred pounds on a car, which must be written off in (at most) a few years, whilst towards his house, which might last him a lifetime, he is relatively niggardly in his outlook. It is necessary to realize that today the car and not the home is the central figure in the lives of many and in the ideals of more. As I have implied, people no longer settle for life, their homes are apt to be changed nearly as freely as their cars, though with less ease. The difference, of course, is that, whereas an out-of-date car is discarded, a house, from the mere fact that it lumbers the ground and cannot be wheeled away like an out-moded vehicle, is expected to make its cost from a succeeding occupant—this is where the gall and wormwood comes in. A building costing between £450 and £1700 seems the present limit of the suburban average, with cost of land in addition, and the latest attraction—"No road charges, survey fees, or legal expenses." With these figures it should be quite possible to compete on sound lines. What are





the advantages which the Estate Developer-Builder enjoys, which enable him to sell his houses "like hot cakes"?

Apart from a willingness to supply the needs chronicled above—and a few more or less unquestionable—I believe they are :—

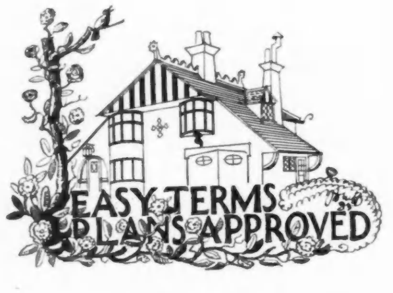
(*a*) A shameless publicity and use of slogans ;

(*b*) Ability to exhibit the specimen article and not merely plans on a seductive picture ;

(*c*) The facilities for building in quantities, and consequently with economy.

As to (*a*) it is noticeable that there is an increasing tendency for speculative builders of no more than ordinary merit to attach to their efforts quite boldly such names as imply that superior character or quality belongs thereto—as for instance "Boodle's houses are different," "Bunkum's houses—built to last," or with more subtle inference "Blogg Built Homes." Modesty and a sense of the ridiculous are clearly prejudicial to full commercial success. Extravagant fun has been poked at such terms as "The little palaces of Colindale," and "The H with the Baronial Hall," but these slogans seem almost a necessity to capture the fancy of the multitude. Perhaps architects will be able to invent and use better ones.

(*b*) The actual presentation of show houses is the trump card. Despite sixty years of compulsory education the number of ordinary folks who can understand plans and visualize sizes is still very low, while added to this a measure of distrust as to the reliability or even the bona-fides of architects is deep-seated in the mind of the average business man. To compete with the type of house now available, any alternative effort must be in the concrete and not merely on paper, and it will be as well for its sponsors to remember that in translating designs into fact they must not make the pace too hot. If, as well as aiming at improved design incorporating the 9 points, they endeavour to raise the structural scheme too much above that considered adequate and practised by the speculator, the price may soar so that no true parallel will exist. The aim should be the provision of houses strictly comparable with their model in all but planning and design and it is here that the architect may score, for there has been little progress in the planning, construction or design of the speculative house since the war. But it is only by entering into active competition and showing the man in the street exactly what his money will buy that the architects can hope to recapture small house work, and improve upon the existing standard of house design.



Liverpool Cathedral

The foundation stone of the new Liverpool Cathedral, designed by Sir Edwin Lutyens, R.A., P.I.A.A.S., will be laid at noon on Monday, June 5. The stone will be a block of solid white Italian marble weighing about 140 lb.

Two Art Treasures

The gold and silver altar-piece and a font, which could not be brought from the goldsmith's in Germany in time for the consecration of Buckfast Abbey in August last, have now been delivered. The delay in the installation, it will be recalled, was due to the death of the donors before they were fully paid for, and the heavy Customs duty liable on the two gifts. The altar-piece, which has cost several thousands of pounds and took over two and a half years to complete, is a reproduction of the famous altar of Coblenz. It was designed by the architect of the Abbey, the late Frederick Walters, F.R.I.B.A.

Manchester Housing Problem

The Manchester City Council has rejected a scheme for making certain smaller houses on the Wythenshawe Estate all-electric.

Northern Polytechnic

The annual speech night of the Department of Architecture, Surveying and Building of the Northern Polytechnic, held on April 6, was attended by distinguished representatives of the architectural profession, including Sir Raymond Unwin, P.R.I.B.A. The prizes were distributed by the Right Hon. The Earl of Crawford and Balcarres, F.R.S. ; Mr. R. L. Roberts, M.A., Chairman of the Governing Body of the Polytechnic, presided.

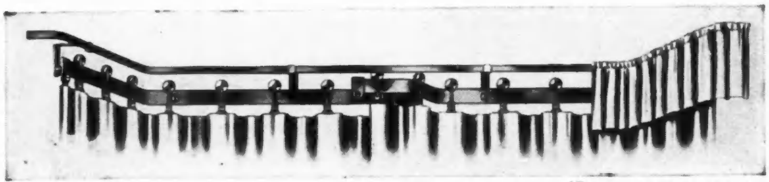
Mr. T. E. Scott, F.R.I.B.A., in presenting his report, stated that they had passed through a most satisfactory year. Although it was unfortunate that the number of students available for training in the Junior School of Building was small compared with those entering the industry, the official attitude towards technical education was at least encouraging for the future ; all the boys who had left the school had been placed. He reported that the Day School of Architecture had completed a satisfactory but uneventful year. In the Evening School of Architecture, however, considerable progress was being made.

Mr. W. H. Ansell, F.R.I.B.A., Chairman of the Board of Architectural Education, and Mr. G. Harding, President of the National Federation of Building Trade Employers, then addressed the students.

Following the addresses, the Prizes and Diplomas were distributed by the Earl of Crawford and Balcarres.

Other speakers included Dr. T. J. Drakeley, Principal of the Polytechnic, Sir Raymond Unwin, Mr. C. Eaton, of the Board of Education, Mr. L. Sylvester Sullivan, F.R.I.B.A., Mr. J. Murrey, Secretary of the National Federation of Building Trade Operatives, Mr. A. B. Knapp-Fisher, F.R.I.B.A., President of the A.A., and Mr. H. G. Dowling, President of the Incorporated Institute of British Decorators.

LITERATURE



[*From* DESIGN IN THE HOME.

Combined curtain runner and valance rail. The overlapping rails are designed to prevent a gap when curtains are closed.

IN THE ENGLISH HOME

Design in the Home. Edited by Noel Carrington. London: Country Life, Ltd. Price 15s. net.

As this book is written and compiled from a " fitness for purpose " point of view one cannot avoid the impression that fitness for purpose, as exemplified by the telephone and the knife in the introduction, is somewhat lacking in the illustrations that follow. The majority of the interiors, the furniture and the fittings are " over-designed," but, as Mr. Noel Carrington has courageously confined himself to British work his field is, of course, very limited. It is significant that the same names appear again and again, and discouraging to note that so much of the better work comes from one building —Broadcasting House.

It is pleasing, however, to find a general improvement in the design of standardized fittings, kitchen equipment, household gadgets, electric fires and electric light fittings.

In his introduction Mr. Carrington reminds us " that the house is becoming a more and more complex organism, even though simpler in appearance, and the designer needs to have knowledge of *both* more trades and more materials than in the past." He continues :—

> I am tempted to suggest that the architect of the future will be the designing member of a building firm and no longer professionally divorced from his craft. It is common knowledge that architects are regarded as extravagant luxuries, and largely because of their lack of practical training. Builders, on the other hand, show no sense of planning or form, from lack of culture and education. The divorce is unnatural and it is the public which suffers. It is significant that both in England and on the Continent the profession of interior designing is attracting young men and women of ability, and the firms which employ them have been conspicuously successful at the expense equally of the more conservative type of builder and architect. . . .
>
> It is undeniable that the contemporary designer is faced with a serious problem, whether he recognizes it or not, and this applies as much to individual trades as to the architect. On the one hand an embarrassing richness of materials and methods, on the other hand an absence of that vital tradition which has always served as the basis of every style. In most trades we have to go back a century for any vital tradition. The gulf is too wide. Craftsmanship has been displaced by machines. I think this is the reason why many designers, obsessed with " fitness," and without a traditional style to guide their hands, fail to rise above the commonplace, and why others, in quest of modernity, present us with nothing but novelty. Nevertheless life goes on : men and women must make their homes. As it appears to the writer, the less we concern ourselves with style the better. A mind trained to appreciate the best work of the past, and also trained to apply itself to modern needs with modern methods, will find itself sooner or later.

The book contains over five hundred illustrations and is divided into ten sections. They are as follows : interior design ; furniture ; artificial lighting ; daylight lighting ; heating ; baths and lavatories ; the kitchen ; pottery and glass ; silver and plate ; and curtains, rugs and wall coverings. Each section is preceded by a short description of the subject treated.

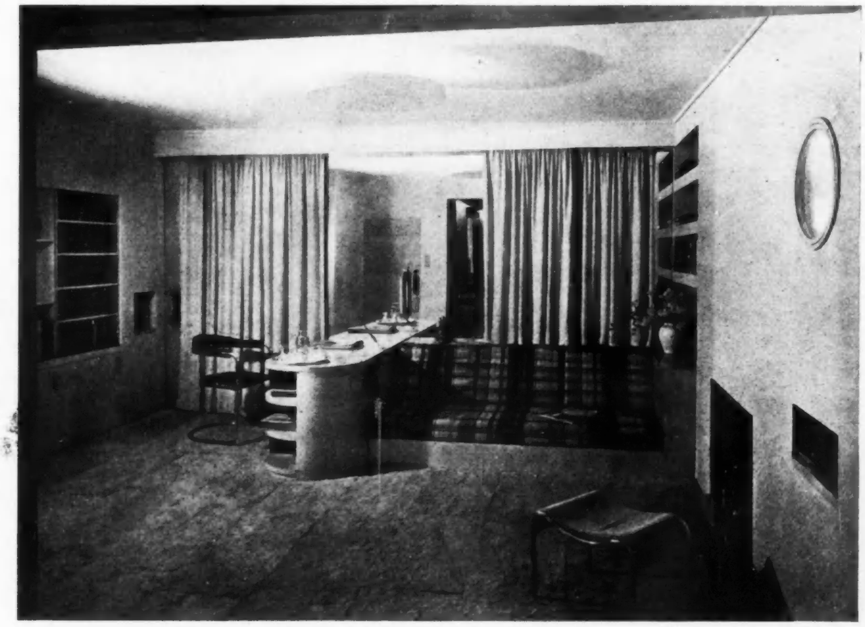
Discussing the " modern style " in the foreword to the photographs of interior design, Mr. Carrington says :—

> Perhaps the self-conscious interiors which followed the Paris Exhibition of 1925 justify the label of " modernist " because one sees the obvious determination to be novel at all costs. Working along such lines, it is always possible to produce a style of sorts, compounded largely of studied unconventionalism, flavoured in this instance with a dash of Cubism. Such interiors are as unrelated to function and construction as the Tudor reproductions of the big shops. They will prove tiresome and boring, all the quicker because of their loud emphasis, and they are indeed a bad joke in which only the rich can indulge.

Mr. Carrington sums up the important question of heating in the following words :—

> The householder must decide how much heat he requires, in what form and for what periods, not only now but in the future. He must reckon how much labour he will have available, and how intelligent that labour will be. He must balance the claims of convenience and comfort against the ultimate claims of economy. Let him consult an architect friend who has a home of his own, and let him keep away from showrooms until he has a clear idea in his

LIVING ROOM IN A CHELSEA FLAT



The living room being in fact something of a conversation piece, it is only logical that the couch and easy chair should become the principal features. In this living room in a Chelsea flat, designed by Brian O'Rorke, the couch or day-bed also acts as a writing table or a cocktail cabinet. The walls are partly panelled with sycamore and partly painted pink. The rugs are of sheepskin, the curtains grey and the settee cushions in grey-brown plaid. Wireless is brought through a grille from below. It is interesting to note how shelves, chairs and cushions all carry through the same lines.

[*From* DESIGN IN THE HOME.

head of his needs and the best instrument for meeting them. If few homes are effectively heated today it is not so much the fault of the apparatus as because it has been wrongly chosen for its purpose.

The book is essentially one for British architects: for, by it, they are afforded an admirable survey of the trend in modern design in this country.

NOTES ON THE ILLUSTRATIONS

1. A distinguishing feature of the modern bedroom is the way in which the bed is made the decorative centre of the room. Here is shown a double bedhead fitment in a country house. The furniture is in sycamore and the joinery in oak. Walls and ceilings are painted ivory; the carpet is blue, curtains are brown and white. Architect: R. D. Russell.

2. Washing-up remains the worst of household drudgeries. It deserves an efficient apparatus which can appreciably shorten the task. Here is a simple and sensible arrangement in a London flat, where the hot water pipes are utilized for drying.

3. The portable electric fire is still popular, partly from its cheapness, its usefulness for warming plates and for moving from room to room. This three-unit electric fire has chromium plates and cellulosed guards. Designer: A. Murray Easton.

4. In bedroom furniture of a more expensive nature the designer has more opportunity to provide beautiful surfaces and patterns, but the same absence of carving and the same simplicity of outline will be found as in the mass-produced article. This photograph shows bedroom furniture, veneered with figured birch and stained oatmeal colour, designed by David Pleydell-Bouverie.

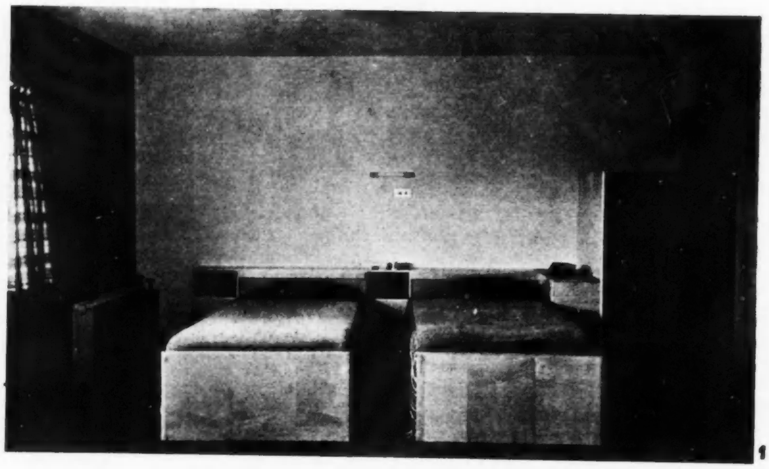
5. Living room in a country house. Here we see a fine disregard for symmetry, though the composition of the room is restful because of its spaciousness. The walls are jade-green cellulosed and the fittings of chromium steel. Architect: A. Connell.

6 & 7. Ceiling lights of obscured glass for the working rooms and passages of a house are the most practical and efficient. They require less cleaning and distribute the light evenly, especially with painted wall surfaces. These two photographs show ceiling lights suitable for lavatories or low passages.

8. The fitted-in electric fire is certainly the neatest of all in appearance. This is an example of a modern chimney-piece with fitted-in fire. Architect: Edward Maufe.

The above notes, also the illustrations, are reproduced from DESIGN IN THE HOME.

DESIGN IN THE



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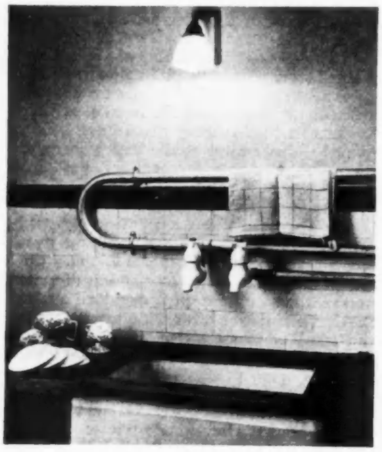

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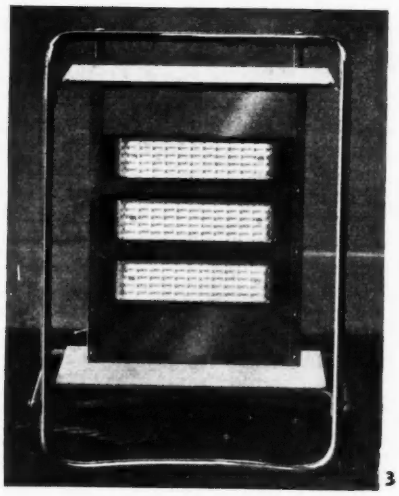

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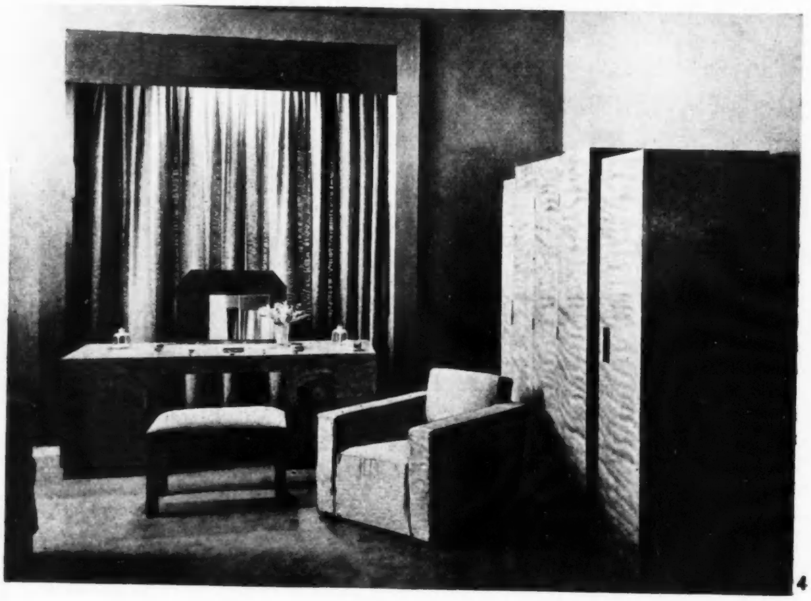

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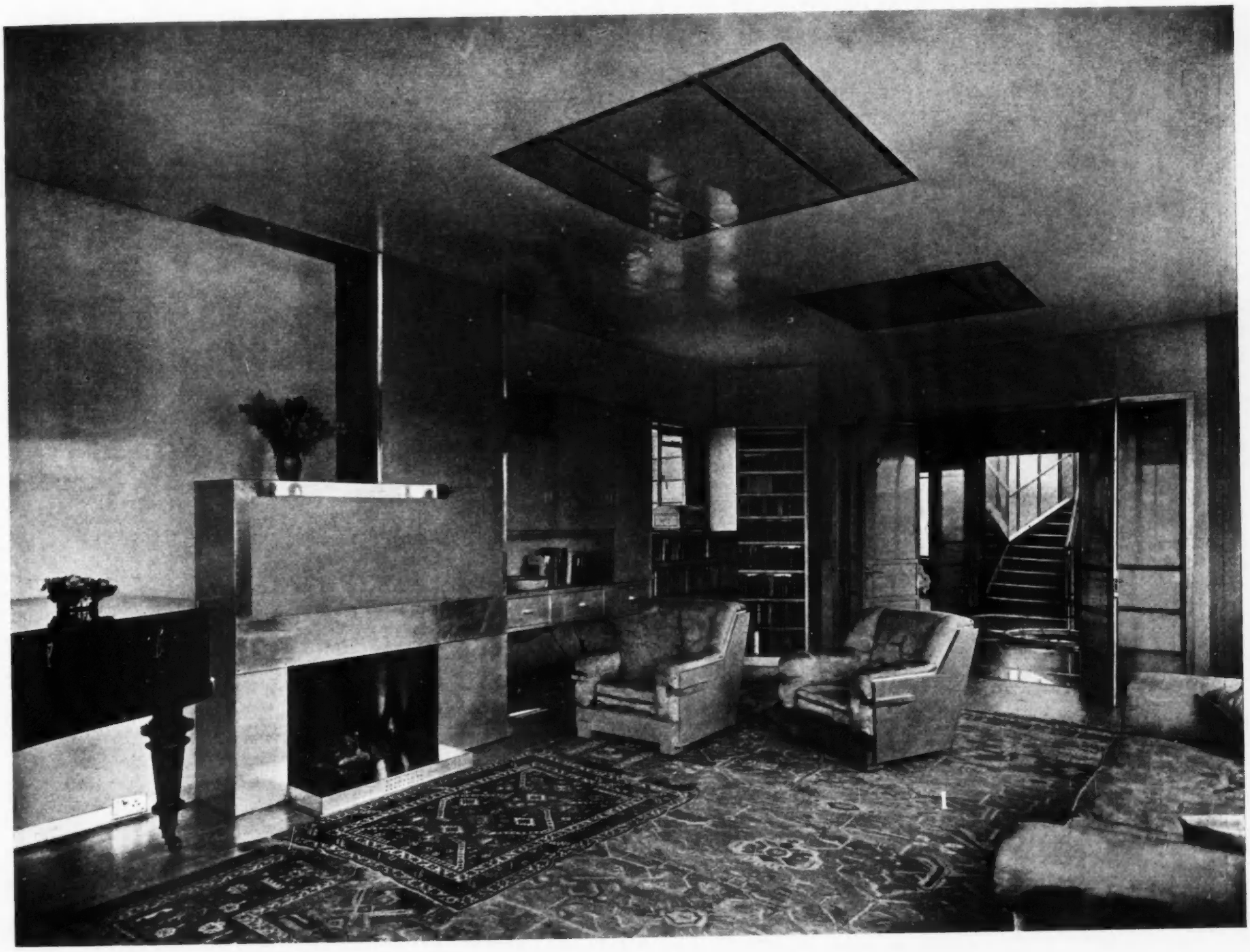
MODERN ENGLISH HOUSE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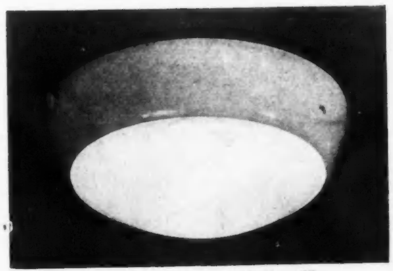
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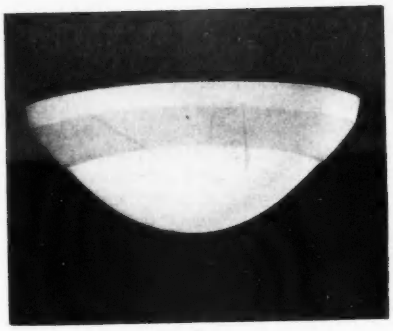
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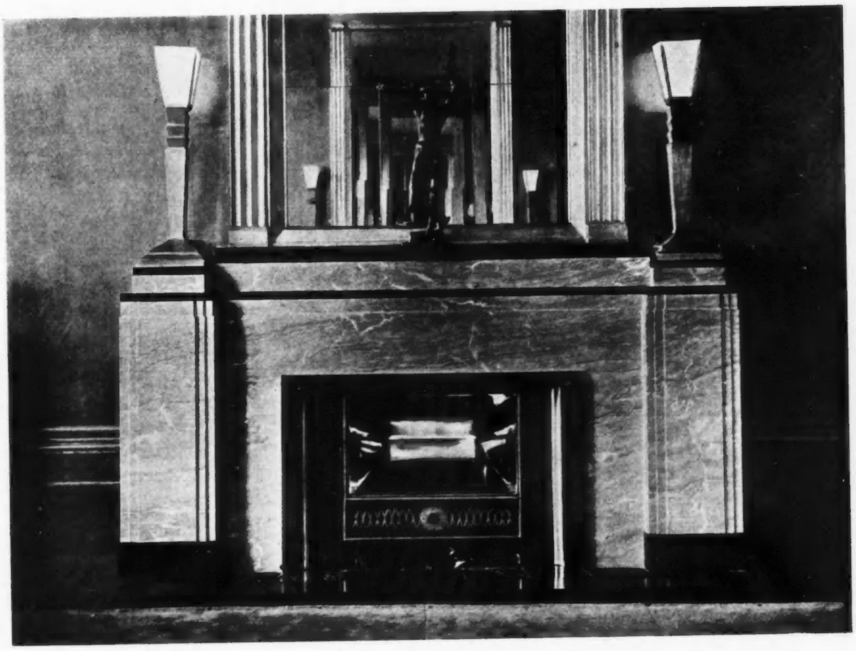
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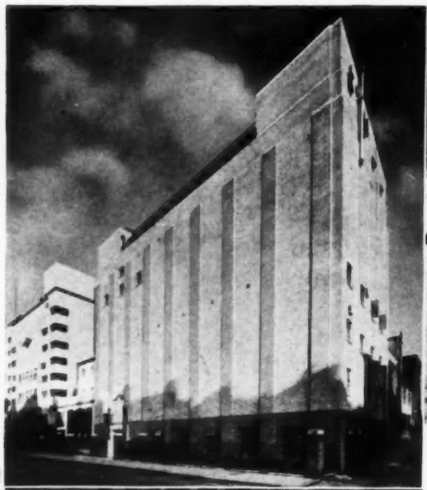
GAUMONT BRITISH SOUND FILM



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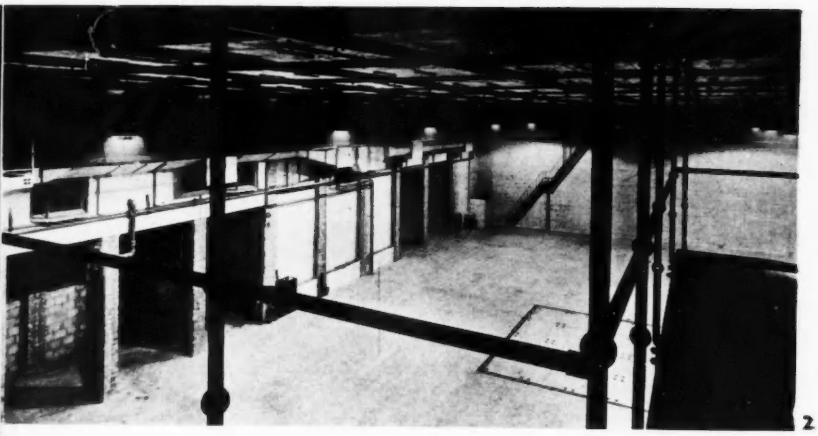

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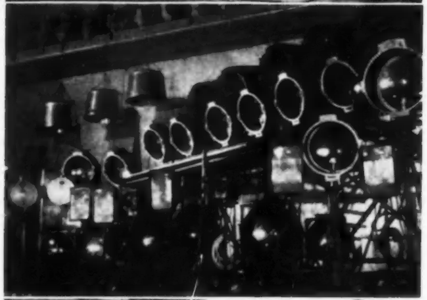

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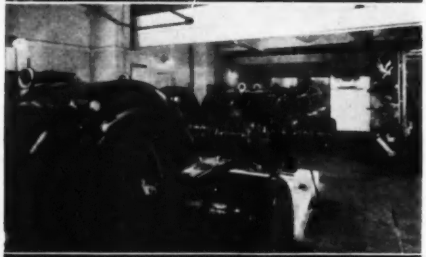

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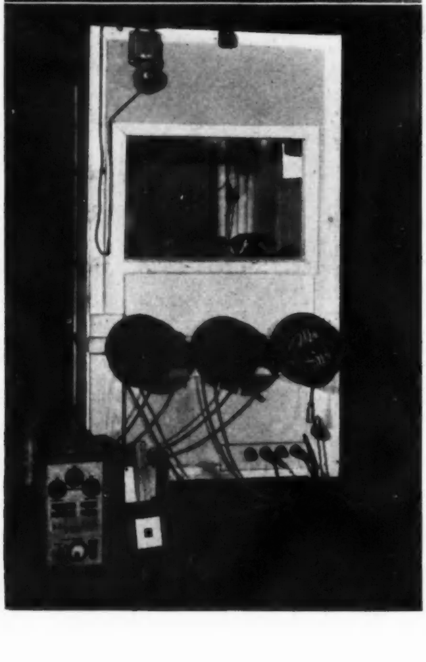

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S. B. PRITLOVE, ARCHITECT

(**1**) *The main centre block, on the left, designed by S. B. Pritlove, was completed in September, 1931, and later altered and extended to meet the new demands created by rapid technical development and the wider activities of the Gaumont Corporation. The block includes studios, dressing rooms to accommodate 600 artists, and technical and administrative offices. The largest studio (No. 4) is 135 ft. long and 85 ft. wide. Above the block is a flat roof equipped for the "shooting" of outdoor scenes.*

In the foreground is the latest extension, designed by Nicholas and Dixon-Spain, and recently completed, with offices on the ground floor, a studio on the first floor, and orchestration and viewing theatres, film-cutting rooms, and film stores on the top floor.

The studios are ventilated by a plenum type conditioning plant, the intake being equipped with specially designed filters, and the air is cleared to give, at all times, a fog-free atmosphere.

(**2**) *No. 4 studio, or sound stage, on the second floor of the centre block, cleared for a new production. The ceiling and walls are acoustically treated for sound "damping." The visible facing is of linen, covered by wire mesh, stretched over rockwool between wood battens. The floor is laid with pine blocks.*

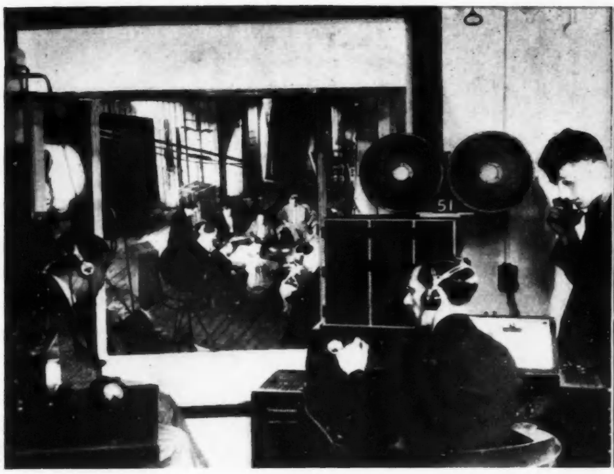
Runways to take pulleys that facilitate the handling of scenery and lighting apparatus are arranged immediately below the ceiling.

A sunk water tank, 48 ft. long by 18 ft. wide by 10 ft. deep, formed in reinforced concrete and asphalted, holding 270 tons of water that can be heated by steam ejectors, is provided for water scenes. In the sides are portholes through which underwater scenes can be filmed and lighted. When not in use the tank is covered by sections of removable flooring.

Each studio is fed independently from all workshops and dressing rooms, so that there shall be no interference with work on adjoining stages, and is provided with full service accommodation: green room, floor property, camera store, paint shop and so on, and each has its own monitoring and recording rooms, positive and negative loading rooms, etc., and suites of drawing offices and art departments.

(**3**) *A representative battery of studio lights. Great changes in electric equipment are illustrated by the fact that whereas in the*

STUDIOS AT SHEPHERD'S BUSH, W.



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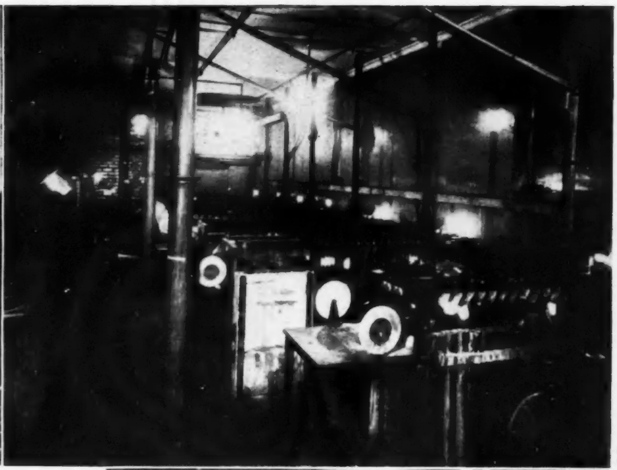

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(NICHOLAS AND DIXON-SPAIN, CONSULTING)

early days of production six lamps were in use on the floor, now over 600 are needed. These vary from 500 to 5,000 watts for incandescent lighting, and from 25 to 150 ampères for arc lighting.

Galleries at two heights around the studio, and two transverse gangways at ceiling level, are provided for the accommodation and direction of the lighting.

The overhead lighting equipment is suspended from trollies, on the ceiling runway system, enabling lamps to be concentrated and banked as required. All electrical apparatus for lighting and power is controlled from switchboards on the floor and galleries. The upper gallery is served by a lift in order that the large sun-arcs, which weigh nearly half a ton each, may be easily transported. The lower gallery has a trolley system that enables lamps to be manipulated rapidly.

Two 1,500 K.V.A. transformers, four 125-kilowatt and two 250-kilowatt output motor generators have been installed. These supply D.C. current for the stage floors' lighting equipment, giving, at 110 volts, nearly 10,000 ampères at normal rating, but capable of supplying, if necessary, 15,000 ampères for short periods.

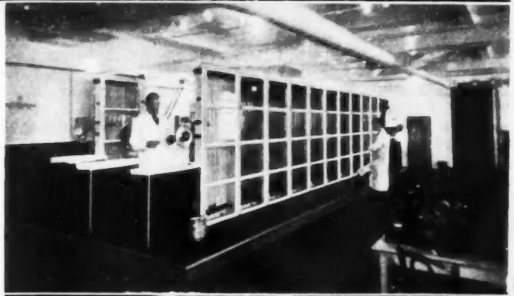
(4) *A section of the sub-generating station. The existing single-phase supply has been converted to a three-phase supply, capable of giving three times the old output. For this purpose two new transformers and complementary switchgear, were installed, and a considerable length of cable was laid from the Hammersmith Electricity Works to the Corporation's sub-generating station.*

(5) *A sound recordist's booth—where sound is recorded and controlled—located on the studio floor.*

(6) *Engineers, in the sound camera room, on a mezzanine adjacent to the studio and separated from it by a soundproof window, recording the sound from a scene enacted on the stage below them. The "mike," which collects the sound, is visible, at the end of its lever-arm, through the observation window.*

In the laboratory : (7) *A developing room.* (8) *A battery of film drying cabinets in the negative drying room.* (9) *The mass film printing department.* (10) *The cutting and examination of films.*

(11) *A carpenters' workshop, located, with the plasterers' shop, near the stage. Here the sets are made and prepared for quick assembly before being taken to the stage.*



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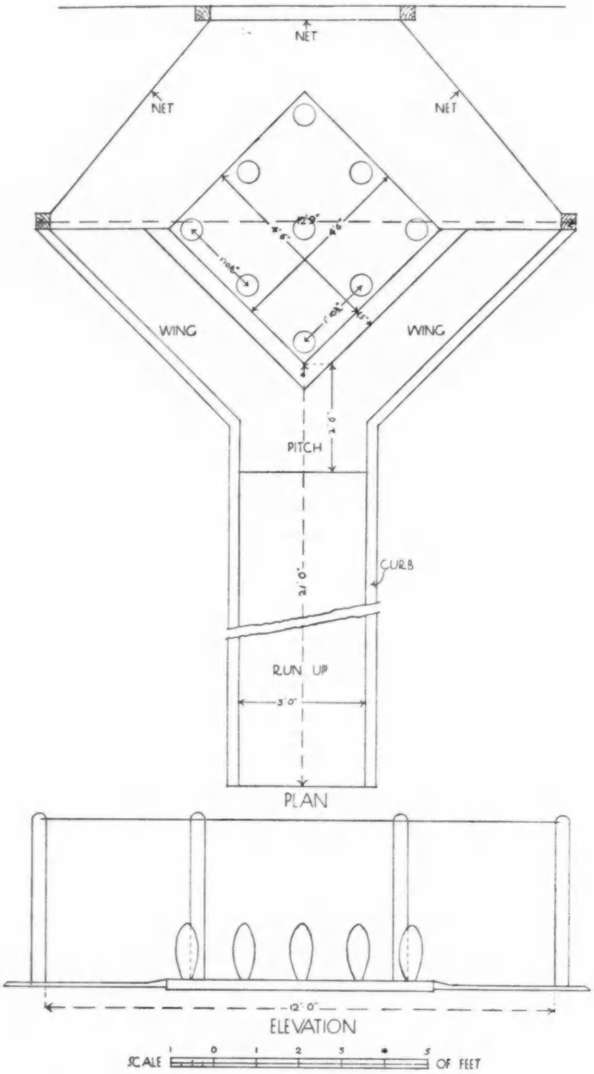
QUESTIONS THAT ARISE



Plan and elevation of a skittle alley. See note below.

Skittle Alleys

¶ J. A. L. writes: "*I should be grateful if your expert would supply me with some information with regard to skittle alleys. I particularly wish to know the usual dimensions of these rooms, the arrangement of windows, the general construction of floors, walls, etc., and any other information that is essential to the proper working of such places.*"

Following is a general specification for, and description of, a skittle alley to conform to the rules of the Amateur Skittle Association, which, I think, will answer your correspondent's queries:—

Court 30 ft. 0 ins. long by 13 ft. 0 ins. wide.

Floor to be of dry deal, covered with cocoa fibre mats, fixed to bearers and joists laid on concrete which must be on a thoroughly sound bottom.

Curb to run-up and wings to be constructed of deal with top front edge chamfered. At the junctions of run-up and pitching pieces of cocoa fibre mats to be supplied and laid in position. Run-up formed of deal boards securely spiked to bearers. These to be thoroughly seasoned.

The wings are usually of prime dry hardwood.

The whole depth of the pit at the back to be protected with a proper shaped and stuffed buffer, made of best stout canvas, filled coir, and provided with lashing eyes and lacing rope for hanging in position.

The pitching piece and bevel pieces to be of red oak.

Under-frame to be in English elm laid on a concrete bed.

The top-frame to be of red oak spiked to under-frame with iron or gun-metal pin plates let in at proper distances and securely screwed down.

The pit surrounds to be fitted with chamfered posts let into iron sockets, with a rail of deal, to which is attached a hemp rope net fastened to the curb at the bottom.

All screws on pitching pieces and wings, etc., to be sunk and the whole carefully filled in.

The success of the floor is wholly dependent on good sound and secure concrete foundations.

Red oak is usually preferred for the frame, but other hardwoods can be employed if required.

With regard to the lighting, a good light at the end of the alley is all that is generally required.

The cost is from £65 to £75 delivered and fixed within the London area.

E. B. M.

LAW REPORT

STRUCTURAL ALTERATIONS TO PREMISES

Kettle v. *Smith.—Court of Appeal. Before Lords Justices Scrutton, Greer and Slesser.*

THIS was an appeal by the defendant, Mr. George David Smith, of Finsbury Pavement, E.C., from a judgment of Mr. Justice Swift, sitting in the King's Bench Division, in favour of the plaintiff on the defendant's counter-claim in the action brought by Mr. George William Kettle, of Dorland House, Regent Street, W., in a claim for £6,033 for rent and other expenses under a tenancy agreement of November, 1931, under which the defendant became the tenant of certain parts of Dorland House.

In the Court below the claim was not deposited, but execution had been stayed pending the trial of a counter-claim by the defendant. By that counter-claim defendant sought a declaration that the plaintiff, as the landlord, was liable to carry out all such structural alterations to the demised premises as might be required by the London County Council as a condition to the grant of a music licence in respect of the part of the premises he held. Defendant also put in a claim for damages, alleging breach of obligations. The defendant was described in the agreement as an exhibition organizer, and it stated that he desired to occupy the premises for the purpose of organizing and running exhibitions. The agreement was for two years from January, 1932, at a yearly rent of £12,000, and in the event of the defendant organizing more than three exhibitions in a year the landlord was to be entitled to 50 per cent. of the net profits from the additional exhibitions.

Defendant was bound not to make any structural alterations or additions without the consent of the landlord, and undertook that the exhibitions should not become a nuisance or annoyance to the landlord or tenants of Dorland House and adjoining owners or occupiers.

Under the tenancy agreement, the landlord by clause 4, sub-clause 3, agreed to carry out all the necessary structural alterations to the building to comply with the London County Council requirements for the user of the premises for the exhibition purposes contemplated. Certain alterations were made, but defendant alleged that plaintiff had not carried out his obligations.

Mr. Justice Swift, however, dismissed the counter-claim and removed the stay on the plaintiff's judgment for rent.

It was from this judgment that the defendant now appealed.

Mr. Croom Johnson, K.C., argued the case for the appellant. Mr. Malcolm Hilbery for the respondent, was not called upon to argue.

The Court dismissed the appeal with costs.

Lord Justice Scrutton, in his judgment, said whoever had drafted sub-section 3 of clause 4 had been asking for trouble. The question that arose in the case was whether the parties when they entered into the agreement contemplated anything about music. There had been three exhibitions without music and no suggestion was made by the defendant with regard to music till March, 1932. The learned judge who tried the case found that music was not in the contemplation of the parties at the time the agreement was entered into, and that therefore there was no obligation on the landlord to make any further structural alterations. On these facts the Court could not interfere.

Lords Justices Greer and Slesser concurred.

Electrical Engineers

The Summer Meeting of the Institution of Electrical Engineers is to be held at Bath from May 29 to June 2.

New Derry Bridge

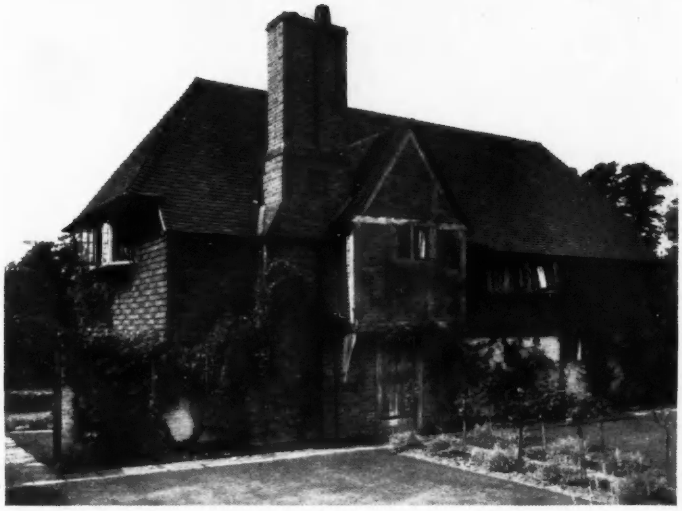
The Derry Corporation has invited the Lord Mayor of London (Sir Percy Greenaway) to open their new £250,000 bridge, which is to be named after Lord Craigavon. The ceremony will take place about the middle of July.

Offices at Chichester

A special meeting of the West Sussex County Council was held recently at Horsham to discuss matters relating to the proposed new County Offices at Chichester. The debate was held in Committee, and the Press were asked to withdraw. Later, the Council issued a statement, extracts from which (as printed in *The Sussex Daily News*) are given below :—

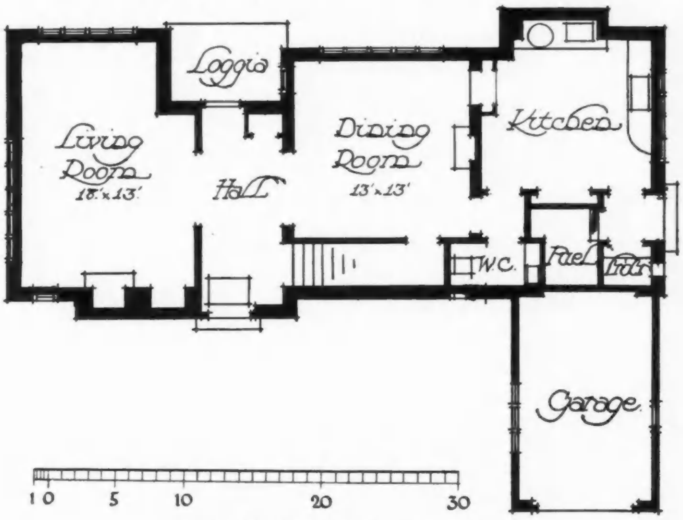
> "That Mr. Vincent Harris be informed that the Council do *not* propose to proceed with the erection of the new County Offices in accordance with the lay-out plans submitted *by him*, and that the Accounts and Estimates Sub-Committee be authorized to effect a settlement of the fees payable to Mr. Vincent Harris under the terms of his contract.
>
> It was resolved also:
>
> "That the lay-out plans for the erection of the new County Offices as *prepared by the County Architect* be adopted, and that the Accounts and Estimates Sub-Committee be authorized to approve the detailed plans and drawings and to invite and accept tenders for the erection of the building in accordance therewith, at a total estimated cost not exceeding *£79,650*, and that the Common Seal of the Council be affixed to any necessary documents in connection therewith.

A HOUSE AT ESHER

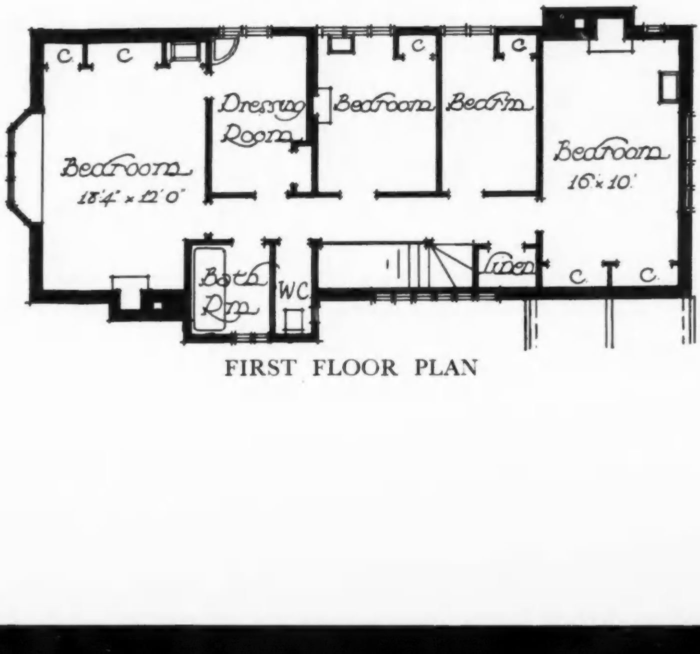


DESIGNED BY IMRIE AND ANGELL

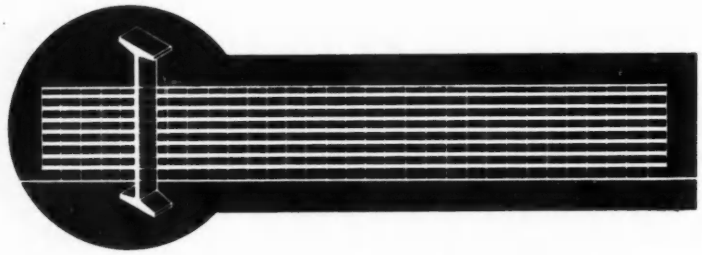
The external walls of this house are 11 ins. hollow, part of the first floor external walls being 9 ins. solid brick, covered with weather tiling. The half timbering on the front is in adzed oak, and the roof is covered with tiles. The oak window frames are filled in with steel casements and leaded lights.



GROUND FLOOR PLAN



FIRST FLOOR PLAN



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Cement glaze

IN order to provide, on an internal wall, a permanently glazed surface, it is usual, in this country, to fix glazed tiles or similar built-up slabs, but on the Continent, for several years, cement glaze has been employed with considerable success.

•

This material is now made in England by Hoyle, Dobson, Barnett, as Glazement. It has a Portland cement base that sets with a hard glazed surface which, when sealed, cannot be stained by oil, grease, or ink. It can be applied in any colour and finished in a variety of textures. It is applied *in situ*, and the surface, unbroken by joints, can be easily washed.

•

It is applied, as a rule, to a Portland cement rendering, for which the manufacturers suggest an ideal specification :—

Rendering to be ⅜ in. thick, and to be finished smooth with a steel trowel.

The proportions to be three parts of an equal mixture of fine and coarse sand and one part of cement, to consist of 95 per cent. Cement Marketing Co.'s Ferrocrete quick-setting cement, and 5 per cent. Pudlo waterproofing.

Ferrocrete is not absolutely essential, but if ordinary cement be used, twenty-eight days must be allowed for setting. Pudlo is not essential either, but it helps the glaze people to give a good job, especially where suction happens to be considerable.

The object of the steel trowel is to obtain a surface on which the cement glaze can be brought to an even finish.

•

Application of Glazement is not sublet, but is undertaken by the manufacturers, who consider that best results are obtained by men who work constantly with the material.

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If, as is claimed, the material is immune from crazing, it should be invaluable as a finish to external concrete or rendered surfaces, but I know of no instance of such usage in this country. I understand, however, that the manufacturers have carried out successful experiments in this direction ; the only difficulties being imposed by weather conditions. It has been found that whilst a damp day with a little wind is ideal, heavy rain, frost, and high winds prove detrimental.

•

Cost must, of course, vary in accordance with the size of the job, number of coats, nature of the backing material, and so on, but, as a guide, I give two examples of work recently executed.

At the Hoover Factory, where five coats with a smooth finish were applied direct on brickwork and rough concrete, over an area of some 5,000 yards, the price was about 4s. per yard super. At the Southern Railway Stations, Balham and others, where five coats with a stippled decorative surface were applied to Portland cement rendering, over an area of 1,500 yards, the price per yard super was about 6s.

Steel Tubes

So seldom does one find a manufacturer exercising foresight by discouraging the abuse of his material that it is with mixed feelings of surprise and gratification that I read, of metal tubes, in a brochure produced by Tube Products : "The facility with which they may be employed has probably encouraged some mishandling of their possibilities through misguided ideas of novelty and sensation," and I recall a window-background exhibition, held recently at Selfridge's, where "fanlight effects," in curly tubes, dominating the lower and more intelligently designed part of the background, destroyed, for me, all sense of the modern, in an exhibition that was supposed to illustrate the window dressing tendencies of today.

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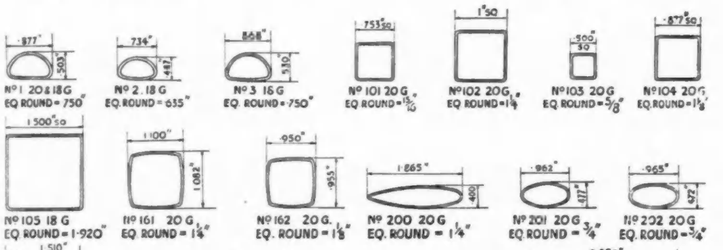
Thanks to scientific processes of fabrication, the tube need no longer be unsightly and


Nº 1 20 & 18 G EQ ROUND = ·750"
Nº 2. 18 G EQ. ROUND = ·635"
Nº 3 16 G EQ. ROUND = ·750"
Nº 101 20 G EQ ROUND = 15/16"
Nº 102 20 G EQ ROUND = 1¼"
Nº 103 20 G EQ ROUND = ⅝"
Nº 104 20 G EQ ROUND = 1⅛"
Nº 105 18 G EQ ROUND = 1·920"
Nº 161 20 G EQ ROUND = 1¼"
Nº 162 20 G. EQ. ROUND = 1⅛"
Nº 200 20 G EQ. ROUND = 1¼"
Nº 201 20 G EQ ROUND = ¾"
Nº 202 20 G EQ. ROUND = ¾"
Nº 203 18 G EQ. ROUND = 1¼"
Nº 204 16 G EQ. ROUND = 2 1/16"
Nº 205 20 G EQ. ROUND = 1⅛"
Nº 206 19 G EQ. ROUND = 2·070"
Nº 207 19 G EQ. ROUND = 2·080"
Nº 208. 19 G - EQ. ROUND = 2·090"
Nº 300 20 G EQ. ROUND = 1⅛"
Nº 301 18 G EQ. ROUND = 1·270"
Nº 302 18 G EQ. ROUND = 1¼"
Nº 303 18 G EQ. ROUND = 1½"
Nº 400 19 G EQ ROUND = 1 9/16"
Nº 401 18 G EQ. ROUND = 1·710"
Nº 450 22 G EQ. ROUND = ⅞"
Nº 431 18 G EQ. ROUND = 1⅝"
Nº 430 18 G EQ. ROUND = 1 11/16"
Nº 209 20 G EQ. ROUND = ⅞"
Nº 132 20 G EQ ROUND = ⅞" SQUARE = ⅝ ROUND = ⅞
Nº 435 20 G EQ ROUND = 11/16"
Nº 434 20 G EQ ROUND = 1 1/16"
Nº 262 18 G EQ. ROUND = 1 9/16"
Nº 490 20 G EQ. ROUND = 25/32"
Nº 131 20 G EQ. ROUND = ⅞" SQ = ⅞" Δ = 9/16
Nº 436 20 G EQ. ROUND = ¾"
Nº 130 20 G EQ. ROUND = 1¼" SQ = 1¼" Δ = ⅝
Nº 433 18 G EQ. ROUND = 1 7/16"
Nº 182 19 G EQ. ROUND = 1⅛"
Nº 180 20 G EQ. ROUND = ⅝"
Nº 181 20 G EQ ROUND = 19/32"
Nº 304 18 G EQ. ROUND = 1⅜"
Nº 440 20 G EQ. ROUND = 1 1/16"
Nº 4 16 G EQ. ROUND = 1⅝"
Nº 210 18 G EQ. ROUND = 1⅝"
Nº 250 20 G EQ. ROUND = ¾"
Nº 253 20 G EQ. ROUND = ¾"
Nº 251 20 G EQ ROUND = ¾"
Nº 261 16 G EQ. ROUND = 1 9/16"

Sections of standard metal tubes.

hidden away. New and various methods of mass production, manipulation, welding (by electricity) and finishing tubes, to any degree of accuracy desired, have opened out such agreeable advantages of application that they have become a medium of infinite capacity.

•

They are used today as a means of scaffolding buildings, for radiators, ventilating screens, hand rails and balustrades, electric fittings, furniture, show cases and general shop fittings.

•

Tube Products, Ltd., manufacture, as a standard, the sections shown in the diagram on page 538, and round tubes in the following sizes and gauges :

Outside Diameter. Inches	Gauge	Outside Diameter. Inches	Gauge	Outside Diameter. Inches.	Gauge
⅜ ⅜	20 18	1 1 1 1	20 18 17 16	1½ 1½ 1½ 1½	20 19 18 16
½ ½ ½ ½	22 20 18 16	1⅛ 1⅛ 1⅛ 1⅛	20 19 18 16	1⅜¼	19
⅝ ⅝ ⅝ ⅝	22 20 18 16	1¼ 1¼ 1¼	20 18 16	1⅝ 1⅝ 1⅝	19 18 16
¾ ¾ ¾ ¾	22 20 18 16	1 11/32	19	1¾ 1¾ 1¾ 1¾	19 18 17 16
⅞ ⅞ ⅞	20 18 16	1⅜ 1⅜ 1⅜	20 18 16	2 2 2	19 18 16
				2¼ 2¼	18 16

Galvanizing

In notes on the protection of iron and steel from rust and corrosion, sent to me by Messrs. G. A. Harvey, I read that rusting is a special case of corrosion depending upon the combined influences of moisture, oxygen and carbon dioxide, the process being accelerated by the presence of acidic substances in the atmosphere. The rate of corrosion or rusting of an iron or steel surface depends upon the conditions to which it is subjected and may vary very widely.

•

The term "Galvanizing" is usually understood to apply to the "hot" galvanizing process, in which the articles to be treated are immersed in a bath of molten zinc, and this is the process with which we are immediately concerned. It is totally distinct from the electro-galvanic method, in which a thin coating of zinc is deposited by the action of an electric current.

•

Hot galvanizing is recommended. It results, when correctly carried out, in the production of an even, substantial and homogeneous coating, which is corrosion-resisting, pliable, and firmly adherent to the iron or steel base.

The anti-corrosive action of galvanized coatings depends entirely on their weather-resisting properties. When properly deposited, these coatings hermetically seal the surface and completely prevent the access of air to the underlying iron or steel. The practice of coating iron with zinc has, therefore, nothing to do with the relative electrolytic properties of zinc and iron, but is based on the fact that zinc itself is a highly weatherproof metal. After a short exposure to the atmosphere, zinc becomes coated with an extremely dense and insoluble coating of zinc oxide and basic zinc carbonate, which itself protects the underlying zinc from the further action of atmospheric agencies.

•

The zinc coating becomes alloyed with the surface of the iron, and it is interesting to note that this coating is composite in character and really consists of several layers merging one into the other, so that there is no really sharp boundary between the iron surface underneath and the pure zinc above.

Literature received

Pressed Steel Stairs	*Frederick Braby*
Newbridge Gas Switches	*The Horstmann Gear Company*
Bison Floors	*Concrete Limited*
The Hy-Rib Handbook	*The Trussed Concrete Steel Co.*

BUILDING
FACTS AND FIGURES

Unemployment

[*By* L. J. GOLLOP]

B.Sc. (Econ.) F.S.S. Economist to the Special Relation Committee of the Building Industries National Council

PROVISIONAL figures issued by the Ministry of Labour on April 4 indicate that on March 20 the number of unemployed in the building industry had declined by 52,000 as compared with the previous month, and in public works by 4,000.

The relevant figures required to place this information in its proper setting are as follows :

Insured Persons Unemployed

End of	Building	Public Works	Total
1931			
January	225,012	63,040	288,052
February	212,261	62,341	274,602
March	187,029	60,059	247,088
1932			
January	281,291	103,199	384,490
February	279,261	102,178	381,439
March	248,642	101,408	350,050
1933			
January	323,212	133,997	457,209
February	295,285	131,135	426,420
March	243,000*	127,000*	370,000*

* Provisional figures.

This table indicates, *inter alia*, the extent to which the building and public works industries have been hit by the economy campaign. As compared with the January before that campaign, an increase of 96,000 was recorded in the total for the group in January, 1932. The seasonal decline in the early part of 1932 was considerably less than usual, and the seasonal increases in the autumn and winter were greater. The increase of 54,000 between December, 1932, and January, 1933, to the phenomenal total of 457,000, was distinctly abnormal. The causes of this abnormal increase were, however, apparently temporary, as the decline in February was greater than the normal seasonal movement. February, however, still showed an increase of 23,000 as compared with December, which is not normal.

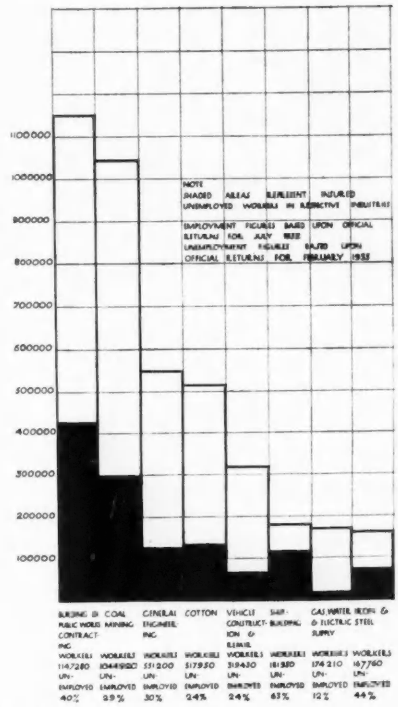
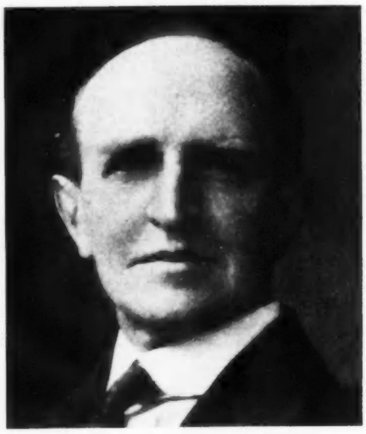


Chart showing unemployment figures in key industries in February, 1933.

The decline of 56,000 in the total between February and March is much greater than the normal seasonal decline, and the movement as compared with December, 1932, is about normal. The figure for March for the building industry is some 5,000 below that for 1932, though still 66,000 above 1931. The public works industry shows an increase of 26,000 as compared with 1932 and of 67,000 as compared with 1931.

The figures would appear to indicate some expansion in building work, probably undertaken by private enterprise, and some further decline in the public works activity of local authorities as compared with 1932.



The late Malcolm Sparkes.

OBITUARY

MALCOLM SPARKES

As briefly recorded in our last issue, the death of Mr. Malcolm Sparkes, of Drytone, Ltd., occurred on Thursday, April 6.

Born at Rochdale on October 14, 1881, Mr. Sparkes was educated at Ackworth and Bootham School, York. After leaving school he came to London and for 16 years worked with Mr. Howard C. Cleaver, designer and manufacturer of architectural woodwork. He was a Quaker, and as such was always active in all movements making for international, industrial and social peace. The "peace" he had in mind was not merely that of a mediator, just touching up quarrels, but his definition of a peacemaker was one who unites for a great constructive purpose the very forces now wasting themselves in opposition, and that faith led him to the idea of an industrial parliament. It was he who originally drafted the scheme for the Building Trades Parliament, which formed the model—with some alterations which were not improvements—for the so-called Whitley Councils, and arising out of that he founded the London Guild of Builders. They did some of the large contracts for direct labour with Housing Schemes for Councils.

In 1924 he founded Drytone, Ltd., specialists in high-class joinery and architectural metalwork. He was not only the founder of it, but the active directing head. His genius as a creative artist as well as a practical craftsman stood him in good stead. The fact that Drytone has through the recent crisis held its own and made progress shows how well and truly the foundations were laid. Everyone who knew him was impressed by his unquenchable optimism and his faith in human nature. The human side of industry always interested him as much as the technical and business side.

Mr. Sparkes, in a letter to this JOURNAL for February 15 last on the subject of National Planning, said the Building Industries National Council, "together with the Central Electricity Board, marks the beginning of a British Plan which, rightly understood, will effect great changes in our standards of living and also in the whole tone of our industrial relations, with incalculable benefit to both. This may sound extravagant, but I think it will bear examination. It is the proposed National Planning Board that is so far-reaching."

ARTHUR E. SALMON

We regret to record the death of Mr. Arthur Edward Salmon, Chairman of W. T. Henley's Telegraph Works Co., Ltd., which took place suddenly on April 6, at his residence at Bourne End, Bucks.

Mr. Salmon was born on March 5, 1865. He joined Henley's as secretary in April, 1894, was appointed a director on July 9, 1926, acting especially in the capacity of Financial Adviser to the Board. He was elected Chairman of the Company on April 1, 1932.

Mr. Salmon was also on the Board of several other companies, principally electrical.

The funeral was at Little Marlow Church, on Saturday, April 8; and a memorial service was held at the Church of St. Sepulchre, Holborn Viaduct, on Tuesday, April 11.

Trade Items

Messrs. W. T. Henley's Telegraph Works Co., Ltd., have appointed Mr. W. Kells as Liverpool Branch Manager in succession to Mr. J. B. Snell, who has resigned his position in order to take up an appointment with a large supply undertaking. Mr. Kells has been with the firm for the past 22 years and has for many years acted as Chief Assistant at the Liverpool Branch.

*

The British Aluminium Co. Ltd., Adelaide House, King William Street, London, E.C.4, have removed from their Birmingham Office and Warehouse at 21 Barwick Street, to Lawley and Landor Streets. The new telephone number is Aston Cross 5865-6.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors, and some of the sub-contractors for the buildings illustrated in this issue:

Houses at Cambridge (pages 521–524 and supplement). Thurso House. General contractors, Manning and Bullman. Christiani and Nielsen, consulting engineers. Sub-contractors: T. R. Freeman, heating and hot water; Electric Wiring and Repair Co., Ltd., electrical installation; Williams and Williams, Ltd., metal windows and doors; British Magnesite Co., Ltd., jointless flooring; Horsley Smith & Co., Ltd., hardwood floors; Standard Flat Roofing Co., Ltd., roofs; Venesta, Ltd., flush doors; Davis Gas Stove Co., Ltd., gas fires; Cement Marketing Co., Ltd., "Snowcrete"; Manu Marble Co., Ltd., reconstituted marble; Parker Winder and Achurch, Ltd., Parwinac oil burner; National Radiator Co., Ltd., Rayrad panels. The White House, Conduit Head, Cambridge. In addition to the general and sub-contractors given above, the following firms also executed work on this house: Joseph F. Ebner, Ltd., composition floors; Merchant Trading Co., Ltd., Laminex flush doors; Bratt Colbran & Co., Ltd., fireplaces. Black flooring tiles, manufactured by Minton Hollins & Co., Ltd., were used.

Roebuck Memorial Homes, Huddersfield (pages 526–528). Sub-contractors: Graham and Jessop, Ltd., excavators, bricklayers and stonemasons; H. Hollingworth and Son, carpenters and joiners; H. C. Stringer, plumber and glazier; W. E. Jowitt, plasterer and roof tiler; Williamson, Cliff & Co., Ltd., tiles (supply); J. W. Hamilton, painter and decorator; Keneth Levell, Ltd., electrical engineers; Precast Concrete, Ltd. (now Roxana, Ltd.), reinforced concrete engineers; Walter Fisher and Son, wall and floor tilers; Millward and Son, steel casements and leaded glazing; Henry Platts, landscape gardeners and paved paths; John Addy and Sons, Ltd., wrot-iron gates and grilles; John Mollet & Co., Ltd., fireplaces, etc.; Hygienic Stove Co., Ltd., gas cookers and boilers; W. and R. Leggott, Ltd., hardware, etc.; Edgar Lockwood, stone carver.

Gaumont British Film Studios, Lime Grove, Shepherd's Bush, W.12 (pages 534–535). Main Centre Block: General contractors, Bovis Ltd. sub-contractors: H. Young & Co., steelwork; Dorman Long & Co., Ltd., steelwork (alterations); Southern Block (latest extension): General contractors, Thomas and Edge, Ltd., sub-contractors: Archibald D. Dawnay and Sons, Ltd., steelwork; Engineers', Carpenters' and Plasterers' Shops, etc.: General contractors, L. and W. Whitehead; sub-contractors, Kelvin Construction Co., steelwork. The consultants for soundproofing and insulating for the whole of the above were Absorbit Ltd. Sub-contractors: The Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, and Siegwart Fireproof Floor Co., reinforced concrete stairs and floors; Absorbit, Ltd., and H. W. Cullum & Co., soundproofing and insulation; Hall and Kay, Ltd., and Young, Austen and Young, heating and ventilating; Mather and Platt, Ltd., and Independent Sprinklers, Ltd., sprinklers and hydrants; J. Briggs (Electrical Contractors, Ltd.), electrical work; Gardiner, Sons and Co., Ltd., W. James & Co., and Crittall Manufacturing Co., Ltd., metal windows; Mellowes & Co. Ltd., and British Challenge Glazing Co., lantern lights and patent glazing; Stevens and Adams, Ltd., and Jos. F. Ebner & Co., wood block flooring; Diespeker & Co., Ltd., terrazzo work; Marbolith Flooring Co., composition flooring; J. Chater and Sons, Ltd., and John R. Venning & Co., sanitary fittings; Shutter Contractors, Dreadnought Fireproof Doors (1930), Ltd., and John Booth and Sons, fireproof shutters; W. Salter Edwards & Co., Ltd., and Limmer and Trinidad Lake Asphalte Co., Ltd., asphalte; Robert Adams, A. E. Davis & Co., and Walter Cassey, Ltd., ironmongery; Midhurst Brick Co., Ltd., Sussex Brick Co., Ltd., and Ames and Finnis, bricks; R. C. Cutting & Co., and J. W. Gray and Sons, lightning conductors; Garton and Thorne, Ltd., Potter Rax Gate Co., A. R. H. Maxted, J. Starkie Gardner, Ltd., and Caslon & Co., metal work; Anselm Odling and Sons, Ltd., marble work; Cork Insulation Co., cork tiling; Benham and Sons, Ltd., kitchen equipment; F. Bradford & Co., and Girlings Ferro Concrete Co., artificial stone; Venesta, Ltd., and Hitchins Flush Woodwork, Ltd., flush doors, etc.; Estler Bros., Ltd., steel shelving; London Sand Blast Glass Co., embossed glass; Carter & Co. (London), Ltd., and Cope & Co., tiling; Asbestos Cement Building Products, Trafford tiling; Ten-Test Fibre Board Co., and the Patent Impermeable Millboard Co., insulating board.

House at Esher (page 537). General contractors, Cummins Ltd.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The BERMONDSEY B.C. has approved plans for the erection of 15 four-room non-parlour type cottages (one with shop), on the Crosby Row site at a cost of £7,900.

Plans passed by the CATERHAM U.D.C. : Four houses, Kingswood Lane, for Mr. W. Bex ; two houses, St. Michael's Road, for Mr. W. R. Quested ; two houses, Salmon's Estate, for Messrs. Thomas and Sutcliffe : four houses, Harestone Valley Road, for Messrs. Rodec, Ltd. ; squash rackets court, Overhill, Warlingham, for Mr. L. S. Crossbie ; two houses, Alexandra Road, Warlingham, for Mr. M. Wright.

Plans passed by the EAST HAM Corporation : 12 houses, Gainsborough Avenue, and shop and three houses, Dore Avenue, for Messrs. W. Goodchild & Co. ; 20 houses, Grantham Road, for Mr. G. Siegerts ; four houses, Church Road, for Mr. S. Newlyn ; three houses, Katherine Road, for Mr. J. Broadbent ; house, High Street South, for Mr. H. Joseph ; three houses, Langdon Road, for Mr. J. Franckeiss ; 102 houses, Millais Avenue, etc., for Mr. R. J. Slater ; 48 houses, Walton Road, for Mr. J. H. Lohden ; reconstruction, Empire Cinema, Barking Road, for Mr. W. E. Trent.

Plans passed by the ENFIELD U.D.C. : Factory, Green Street, Brimsdown, for Mr. W. M. Brand ; extensions, Summerfield chemical works, Ponders End, for Messrs. Thomas Morson and Son, Ltd. ; two houses, St. Stephen's Road, for Mr. A. E. Guy ; four houses, Holmwood Road, for Messrs. French and Buchanan ; four bungalows, Oaklands Avenue, for Mr. Charles Cable ; 286 houses, Aylands estate, for Messrs. W. Goodchild & Co. ; alterations, bioscope room, Rialto Cinema, for Mr. C. Masey ; extension, Sangamo works, Great Cambridge Road, for Messrs. Wimperis, Simpson and Guthrie ; two houses, Bazille Road, for Mr. S. E. Hopton ; two houses, Churchbury Lane, for Messrs. Bowyer and Bowyer ; four houses, Uvedale Road, for Mr. E. Yates.

The L.C.C. is to erect 25 dwellings, containing 80 rooms, at the Northwold Road area, HACKNEY, at a cost of £11,350.

SOUTHERN COUNTIES

Plans passed by the BEXHILL Corporation : Two houses, Wickham Avenue, for Mr. J. E. Maynard ; four houses, St. Andrew's Road, for Mr. J. H. Lye ; two bungalows, Knebworth Road, for Mr. A. E. Lewis ; two houses, Helmesdale Road, for Mr. G. Cash.

Plans passed by the BOURNEMOUTH Corporation : Additions, Castle Laundry, Castle Road, for Mr. R. Bevington ; alterations and additions, 626-8 Christchurch Road, for Messrs. Wilsons ; additions, Studland Dene Hotel, Alumhurst Road, for Mrs. Youngson ; additions, St. Mary's Church, Holdenhurst Road, for Churchwardens ; two houses, Priory View Road, for Messrs. F. Hoare and Sons ; flats, Gervis Road, for Mr. D. A. Wood ; hotel, Pine Grange site, Bath Road, for Modern Service Flats, Ltd. ; two flats, Kimberley Road, for Mr. S. Warde ; three houses, Warnford Road, for Mr. T. Kermode ; two houses, Harwood Avenue, for Mr. A. Laughton ; three houses, The Grove, for Mr. T. Fry ; two houses, West Way, for Mr. E. B. Little ; six shops, Christchurch Road, for Mr. H. G. V. Wallis ; four houses, Malvern Road, for Mr. W. H. Peaty ; flats, Dalkeith Lane, for Messrs. Jones and Seaward ; hall, Demmead Road, for churchwardens ; two houses, Southville Road, for Mr. A. Aston ; two houses, Iford Lane, for Mr. G. B. Ive ; six shops, Wimborne Road, for Mr. Boulton.

The Ministry of Health is to hold an inquiry into the scheme for the BRIGHTON Corporation to provide sea water swimming baths at West Street, at a cost of £50,000.

Plans passed by the EASTBOURNE Corporation : Stores and offices, Chamberlain Road, for Mr. C. M. Wood ; alterations, Blackwater Hotel, Grand Parade, for Messrs. G. Bainbridge and Son ; additions, St. Winifred's School, Meads Road, for Mr. F. G. Cooke ; six houses, Seaside, alterations, Central Cinema, Seaside Road, 56 houses, Seaside, for Mr. A Ford ; two houses, King's Drive, for Mr. S. G. Scales ; six shops, The Avenue, for Messrs. P. D. Stonham and Son.

SOUTH-WESTERN COUNTIES

Mr. H. E. Bettington, is to erect, on behalf of the Hereford Dwellings Co., Ltd., 28 flats in Bath Street, HEREFORD.

Plans passed by PLYMOUTH Corporation : Shop and two houses, Green Park Avenue, for Mr. J. Neal ; two houses, Vine Estate, Swilly, for Messrs. Williams and Gray ; 11 houses, Ganges Road, for City Estate Office ; three houses, Green Park Avenue, for Messrs. Brown and Sleeman ; alterations, Bank of England Place, for Governors ; factory, Water Lane, Stonehouse, for Plymouth Co-operative Society, Ltd. ; Roman Catholic Church and two houses, Barne Estate, for Rev. Father Symons ; four houses, Elms Estate, for Mr. W. H. Webb ; workshop, 16 garages and clubroom, Pounds Building Estate, for Mr. J. Hender.

EASTERN COUNTIES

Plans passed by the CHELMSFORD Corporation : Showrooms and office, London Road, for Messrs. Wenley, Ltd. ; four houses, off Mildmay Road, for Messrs. Choat and Son ; alteraations and additions, 36, High Street, for Mr. H. J. Boon ; three houses, Galleywood Road, for Mr. R. H. Currie ; two houses, Lynmouth Avenue, for Mr. H. G. Gard ; flats, off New Writtle Street, for Dr. K. S. Storrs ; shop, High Street, for Messrs. Marks and Spencer ; works extensions, Writtle Road, for Messrs. Crompton Parkinson, Ltd.

Plans passed by the COLCHESTER Corporation : Four houses, Old Heath Road, for Messrs. H. G. Pryke and Son ; two bungalows, Mersea Road, for Mr. C. H. Pegg ; four houses, Shrub End Road, for Mr. C. Brown ; two houses, Dunthorne Road, for Mr. T. J. Smith ; four houses, Ipswich Road, for Mr. J. S. White ; two almshouses, Military Road, for Mr. F. S. Daniel ; two houses, Sheepen Road, for Messrs. H. Everett and Son ; two houses, St. John's Road, for Mr. E. W. Pentney ; alterations and additions, Myland Hall, for Messrs. Duncan Clark and Beckett ; alterations, Kendal Road, for Colchester Industrial Society, Ltd.

MIDLAND COUNTIES

Plans passed at BURSLEM : 18 houses, Bank Hall Road, for Messrs. J. H. Broadhurst and Son ; pump house, off Waterloo Road, for Messrs. Shell-Mex, Ltd. ; reconstruction, 1-5, Back Elder Road, for Mr. J. O. Smith ; two houses, off Eastwood Avenue, for Mr. J. W. Walton.

Plans passed by the CHELTENHAM Corporation : Development, Treelands Estate, Leckhampton Road, for Mr. H. St. Clair Hall ; development, Newlands Estate, Evesham Road, for Mr. G. S. Stannard ; amended plans, telephone exchange, Presbury, for Office of Works ; laundry, Croft Road, Charlton Kings, for Mr. H. H. Peacey ; 12 houses, Naunton Way, for Naunton Estates, Ltd. ; new women' wards, and additions to nurses' home, Poor Law Institution, Swindon Road, for Gloucestershire County Architect ; two shops, High Street, for Corpus Christi College trustees, Oxford ; alterations, 42-5, Winchcomb Street, for Victory Motor Co. ; four houses, Naunton Terrace, for Mr. C. H. Reason ; additions, 340, High Street, for International Tea Co., Ltd. ; 15 houses and shops, Tennyson Road, for Mr. A. L. Baynes ; nine houses, Whaddon Road, for Naunton Estates, Ltd. ; six houses, Evesham Road, for Messrs. A. C. Billings and Sons.

Plans passed by the GLOSSOP Corporation : Two houses, North Road, for Messrs. Hall and Bowden ; alterations, Norfolk Arms Hotel, for Gartsides Brewery Co., Ltd. ; alterations, Station Road, for Hadfield Co-operative Society, Ltd. ; two bungalows, Hadfield Road, for Messrs. Holden and Miles.

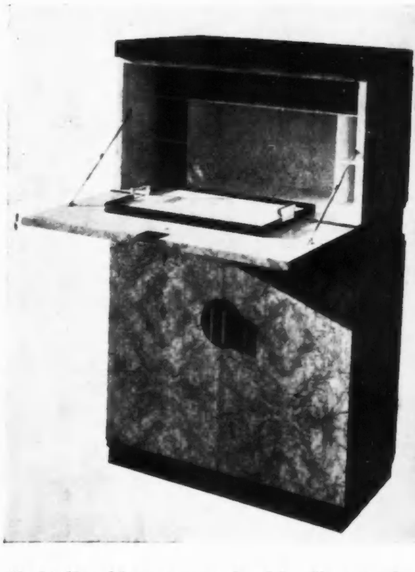
Plans passed at HANLEY : Alterations and additions, Eastwood Works, Lichfield Street, for Messrs. J. and G. Meakin, Ltd. ; 12 houses, Boulton Street, for Messrs. E. Harris & Co. ; five houses, Hanley Road, for Mr. J. Jackson ; two houses, Warrington Road, for Messrs. Cummings & Co. ; shop premises, March Street, for Messrs. E. R. Dawson & Co., Ltd. ; shop and house, Abbots Road, for Mr. W. H. Hodgkinson ; four houses, Abbey Road, for Mr. A. Perry ; six houses, Aynsley Road, for Mr. J. Dimbleby.

Plans passed by the KIDDERMINSTER Corporation : Two houses, Stourbridge Road, for Mr. W. Lindley ; four houses, Highfield Road, for Mr. J. H. Smith ; four houses, Highfield Road, for Mr. W. Lindley ; two houses, Park Lane, for Mr. G. Clarke ; two houses, Sutton Road, for Messrs. T. W. Edwards and Son ; four houses, Batham Street, for Messrs. F. Highes & Sons ; four houses, Larches Road, for Messrs. H. and H. Bridges.

NORTHERN COUNTIES

Plans passed by the BOLTON Corporation ; 11 houses, Thorncliffe Road, for Messrs. F. &. H. Douglas ; service garage and petrol station, New Hall Lane, for Lady Beaumont ; 20 houses, Salford Road, for Mr. Maurice Welch ; two houses, Oakebottom Road, for Mr. John Markland ; junior school, St. Ethelbert's, Melbourne Road, for Rev. T. McGrath ; four houses, Morris Green Street, for Mr. Charles Booth ; two houses, Turton Street, for Mr. F. Cheetham ; 16 houses, Plodder Lane, for Mr. John S. Highes ; out-patients and massage block, Chorley Street, for Bolton Royal Infirmary Governors ; 10 houses, Wheatfield Estate, for Mr. Wilfred Andrew ; four houses, Abingdon Road, for Messrs. Leigh Bros., Ltd. ; club house, Moisant Street, for Messrs. Tootall, Broadhurst, Lee and Co., Ltd.

The WARRINGTON Corporation has obtained sanction to borrow £13,137 for the erection of 42 houses on the Reynolds Street site.



Cocktail cabinet, veneered with olive wood and coromandel. Designer : Edward Maufe. From DESIGN IN THE HOME, *reviewed on pages 531–2.*

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen ; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	Aberdare ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	Banbury ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B_3	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	Cambridge	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	Halifax ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_2	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	Jarrow ..	N.E. Coast	1 5½	1 1¼
A	Keighley	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	Lancaster ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	Nantwich ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	Oakham ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	Paisley ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	St. Albans ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	Tamworth ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	Yarmouth ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

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* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2½
General Labourer	,,		1	2½
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾″ Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2″ Broken Brick	,,		9	6
¾″ ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4″ s.	4″ d.	6″ s.	6″ d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾″ Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2″ Breeze Partition Blocks	per Y.S.		1	8
2½″ ,, ,, ,,	,,		1	11
3″ ,, ,, ,,	,,		2	2
4″ ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2″	F.S.	1	8
,, ,, ,, 3″	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24″ × 12″ Duchesses	per M.	26	10	0
22″ × 12″ Marchionesses	,,	26	0	0
20″ × 10″ Countesses	,,	19	5	0
18″ × 10″ Viscountesses	,,	15	17	6
18″ × 9″ Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20″ × 10″ medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1″ F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾″	Sq.		19	0
,, ⅞″	,,	1	1	6
,, 1″	,,	1	3	6
,, 1¼″	,,	1	7	6
,, 1½″	,,	1	12	0
Deal matchings ⅝″	,,		14	0
,, ¾″	,,		15	6
,, 1″	,,	1	4	0
Rough boarding ¾″	,,		16	0
,, 1″	,,		18	0
,, 1½″	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16″			¼″			⅜″			½″		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/–	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼″	½″	1″	1¼″	2″
Tubes, 2′-14′ long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12″-23½″ long	each	10	1/1	1/11	2/8	4/9
,, 3″-11½″ long	,,	7	9	1/3	1/8	3/–
Long screws, 12″-23½″ long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3″-11½″ long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/–	3/–	5/6	6/9	10/–
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/–	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/–	2/–
Flanges	,,	9	1/–	1/4	1/9	2/9
Caps	,,	3½	5	8	1/–	2/–
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/–	7/6	10/–	21/–

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜″	,,	8	6
,, ,, ½″	,,	8	3
,, ,, ⅝″	,,	8	0
,, ,, ¾″	,,	7	6
,, ,, ⅞″	,,	7	6
,, ,, 1″	,,	7	6
,, ,, 1¼″	,,	7	6
,, ,, 1½″	,,	7	6

		3″ s.	3″ d.	4″ s.	4″ d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9″ offsets	,,	4	0	6	3
Plinth bends, 4½″ to 6″	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:

		3″ s.	3″ d.	4″ s.	4″ d.	6″ s.	6″ d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2¼
,, ,, 26 oz. ,, ,, ,,	,,					3¼
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
⅛″ Hartley's rough rolled	,,					7
¼″ ,, wired cast	,,					10
¼″ Georgian wired cast	,,					11
¼″ Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away		Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away		,,		9	6
,, ,, 10' 0" deep and cart away		,,		10	0
,, ,, 15' 0" deep and cart away		,,		10	6
If in stiff clay	add	,,		3	0
If in underpinning	,,	,,		5	0
Digging, return, fill and ram	,,	,,		4	6
Planking and strutting to sides of excavation		F.S.		1	0
,, ,, to pier holes		,,			6
,, ,, to trenches		,,			6
,, ,, extra, only if left in		,,			3½
Hardcore, filled in and rammed		Y.C.		10	9
Portland cement concrete in foundations (6-1)		,,	1	9	6
,, ,, ,, (4-2-1)		,,	1	14	6
,, ,, ,, underpinning		,,	1	18	0
Finishing surface of concrete, spade face		Y.S.			9

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½"		¾"		1"		1¼"		2"		4"	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	0	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7¼
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

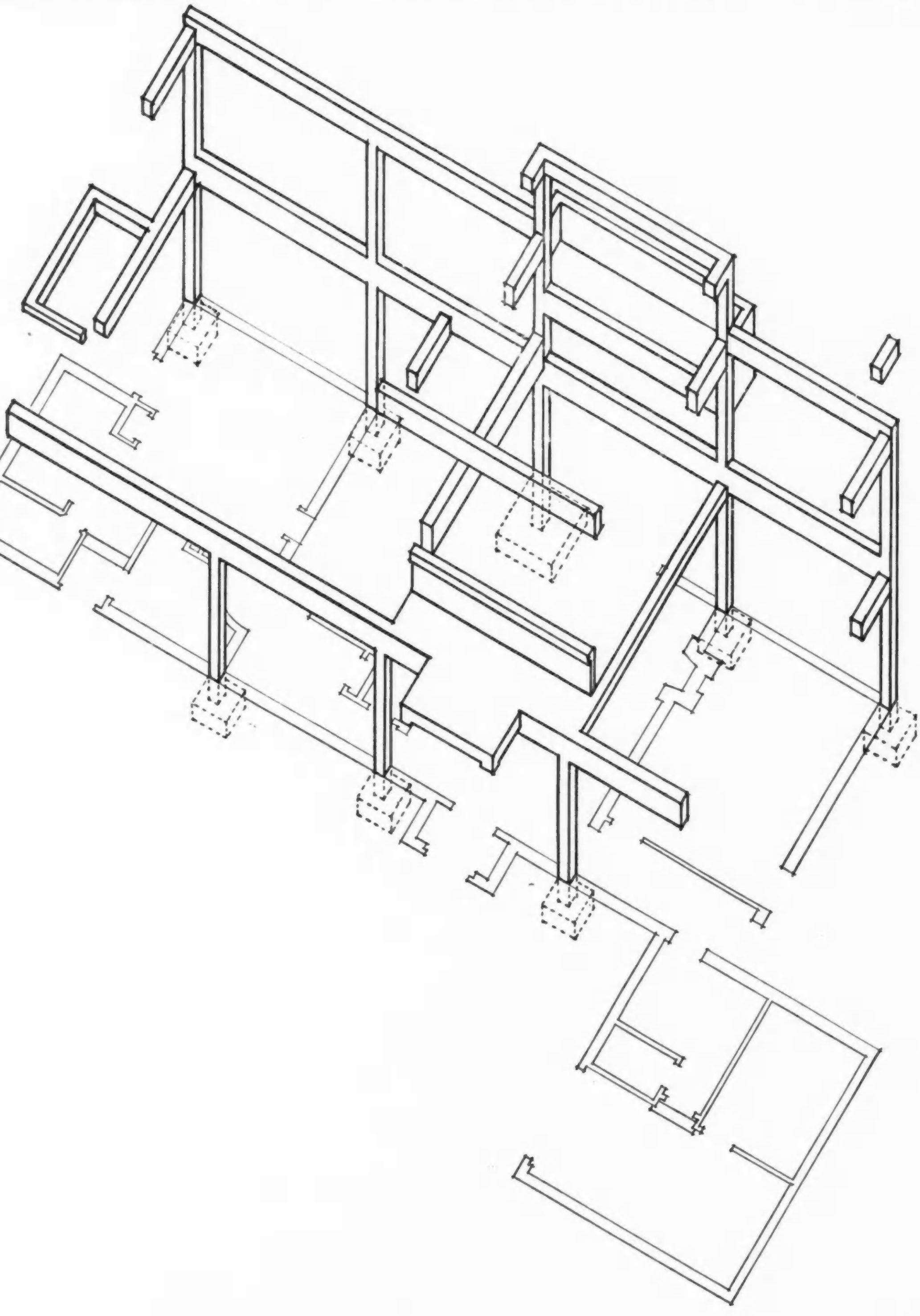
PAINTER

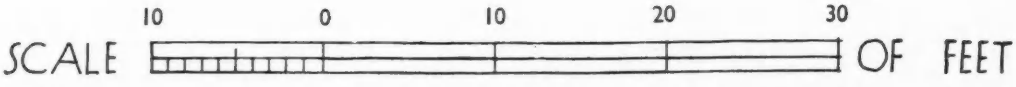
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . from	,,	2	9

Supplement to THE ARCHITECTS' JOURNAL for April 19, 1933

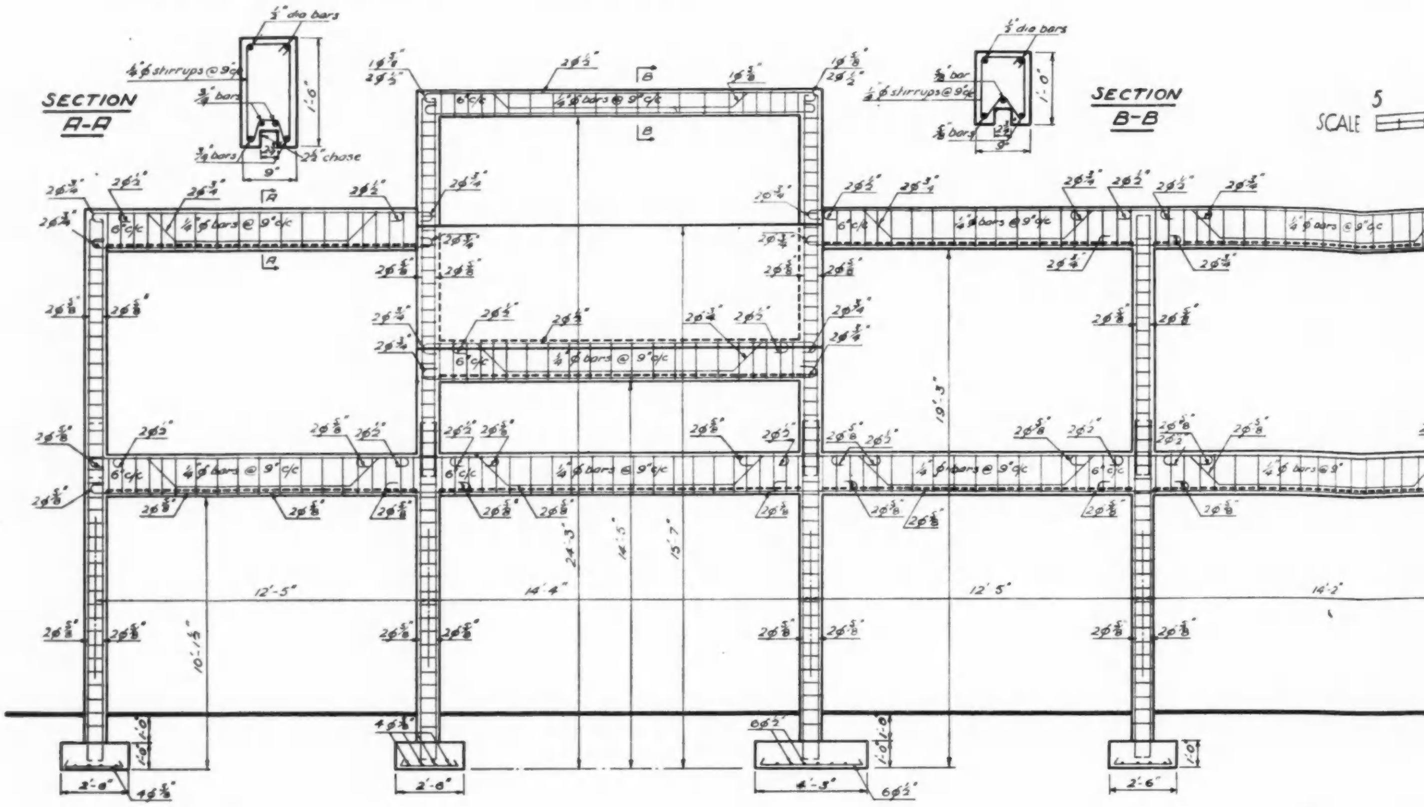
THURSO HOUSE, CAMBRIDGE

DESIGNED BY : : GEORGE CHECKLEY





ABOVE is reproduced an isometric drawing, and, within, a set of elevational and sectional drawings of the steelwork at Thurso House, one of the two at Cambridge illustrated on pages 521-4 of this issue. The consulting engineers were Christiani and Nielsen. Notes on the construction appear on the last page of this supplement.

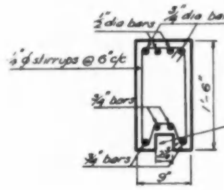

½" dia bars
¼"φ stirrups @ 9" c/c
¾" bars
2½" chase
1'-6"
9"
1'-0"
8"
⅝" bar
⅝" bars
¼"φ bars @ 9" c/c
6" c/c
19'-3"
24'-3"
14'-5"
15'-7"
12'-5"
14'-4"
12' 5"
14'-2"
10'-1½"
1'-0"
2'-6"
4'-3"
4φ⅝"
6φ½"
2φ⅝"
2φ½"
2φ¾"
B
A

SECTION A-A

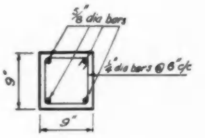
SECTION B-B

5
SCALE

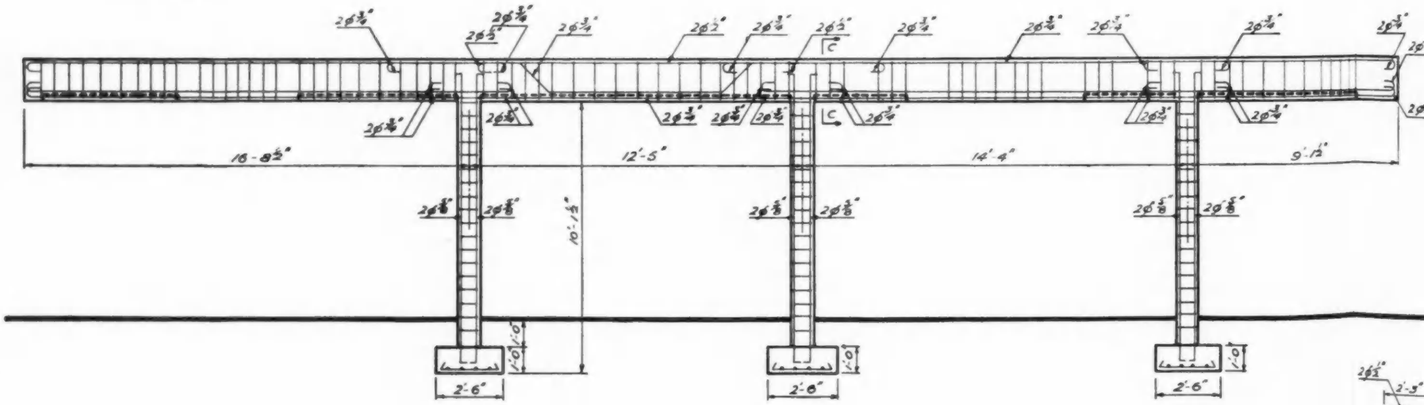
SOUTH-WEST ELEVATION


½" dia bars
⅜" dia bars
¼"φ stirrups @ 6" c/c
¾" bars
2½" chase
1'-6"
9"

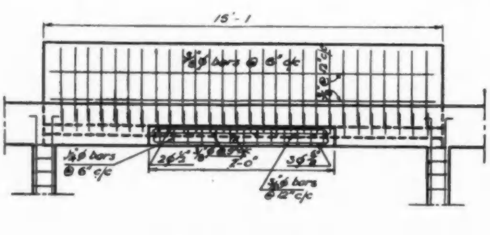
SECTION C-C


⅝" dia bars
¼" dia bars @ 6" c/c
9"
9"

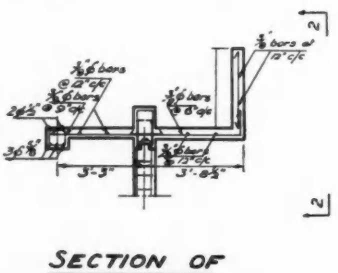
SECTION OF COLUMNS


2φ⅝"
2φ¾"
2φ½"
16'-8½"
12'-5"
14'-4"
9'-1½"
10'-1½"
1'-0"
2'-6"
C

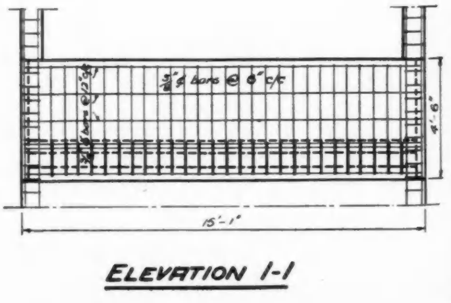
NORTH-EAST ELEVATION


15'-1
⅜"φ bars @ 6" c/c
⅜"φ bars @ 6" c/c
2φ½"
3φ⅝"
2'-0"
⅜"φ bars @ 12" c/c
2
2

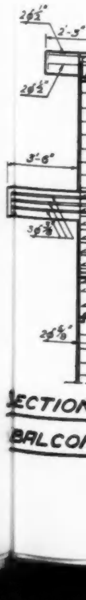
ELEVATION 2-2


⅜" bars at 12" c/c
⅜"φ bars @ 12" c/c
2φ⅝"
3φ⅝"
3'-3"
3'-8½"

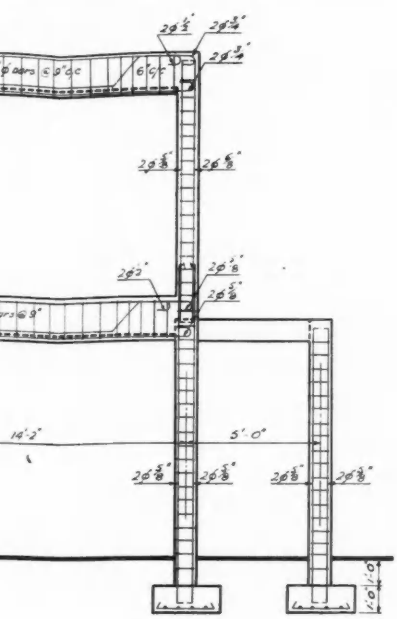
SECTION OF GALLERY


⅜"φ bars @ 6" c/c
⅜"φ bars @ 12" c/c
4'-6"
15'-1"

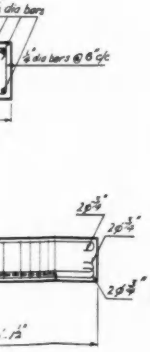
ELEVATION 1-1


2φ½"
2'-3"
3'-6"
3φ⅝"
2φ⅝"

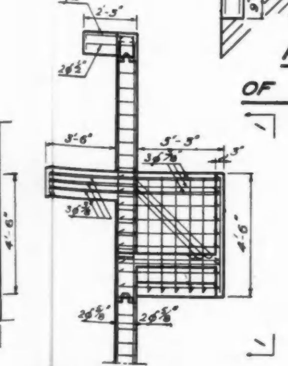
ECTION
BALCO



SCALE
5
0
5
10
15
OF FEET
2φ½"
2φ⅝"
2φ⅝"
2φ⅝"
2φ½"
2φ⅝"
14'-2"
5'-0"
2φ⅝"
2φ⅝"
2φ⅝"
2φ⅝"
1'-0"
1'-0"

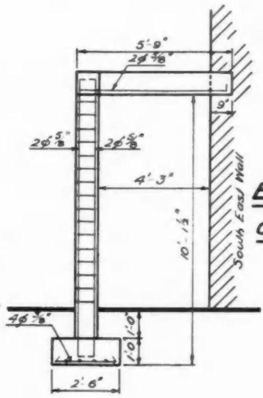


dia bars
dia bars @ 6" c/c
2φ¾"
2φ¾"
2φ¾"



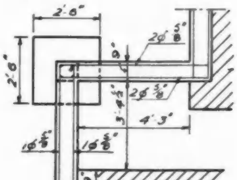
2φ½"
2'-3"
2φ½"
3'-6"
3'-3"
3φ⅝"
3φ⅝"
4'-6"
4'-6"
2φ⅝"
2φ⅝"

ECTION OF BALCONY



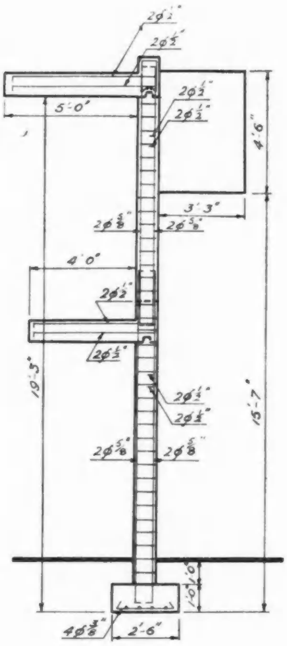
5'-9"
2φ⅝"
9"
2φ⅝"
2φ⅝"
4'-3"
10'-1½"
South East Wall
4φ⅝"
1'-0"
1'-0"
2'-6"

ELEVATION OF PORCH



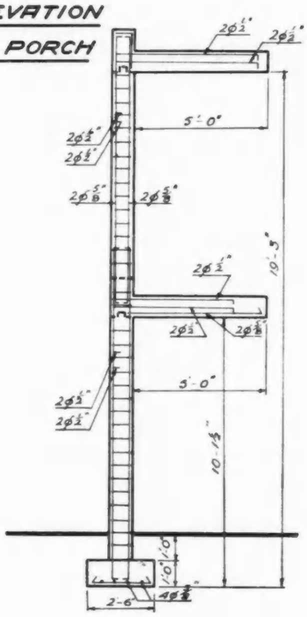
2'-6"
2'-6"
2φ⅝"
2φ⅝"
4'-3"
1φ⅝"
1φ⅝"

PLAN OF PORCH



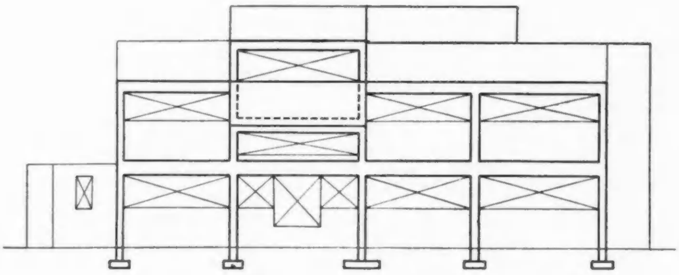
2φ½"
2φ½"
5'-0"
2φ½"
2φ½"
4'-6"
3'-3"
2φ⅝"
2φ⅝"
4'-0"
2φ½"
2φ½"
19'-5"
15'-7"
2φ½"
2φ½"
2φ⅝"
2φ⅝"
1'-0"
1'-0"
4φ⅝"
2'-6"

NORTH WEST ELEVATION

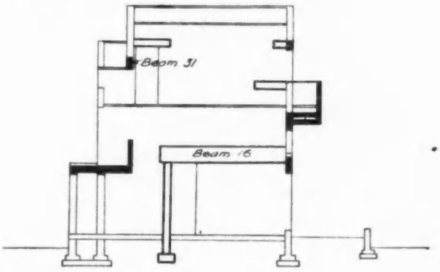


2φ½"
2φ½"
5'-0"
2φ½"
2φ½"
2φ⅝"
2φ⅝"
19'-5"
2φ½"
2φ½"
2φ⅝"
5'-0"
2φ½"
2φ½"
10'-1½"
1'-0"
1'-0"
2'-6"
4φ⅝"

SOUTH EAST ELEVATION

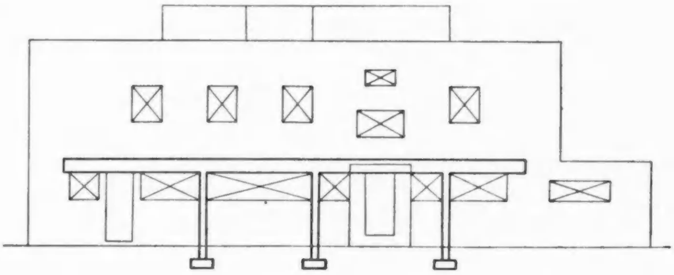


SOUTH-WEST ELEVATION

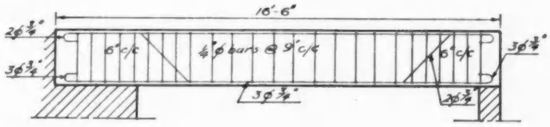


Beam 31
Beam 16

SECTION

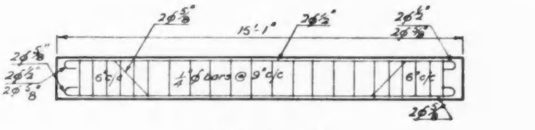


NORTH-EAST ELEVATION



16'-6"
2φ¾"
3φ¾"
6" c/c
¼" φ bars @ 9" c/c
6" c/c
3φ¾"
3φ¾"
2φ¾"

BEAM 16

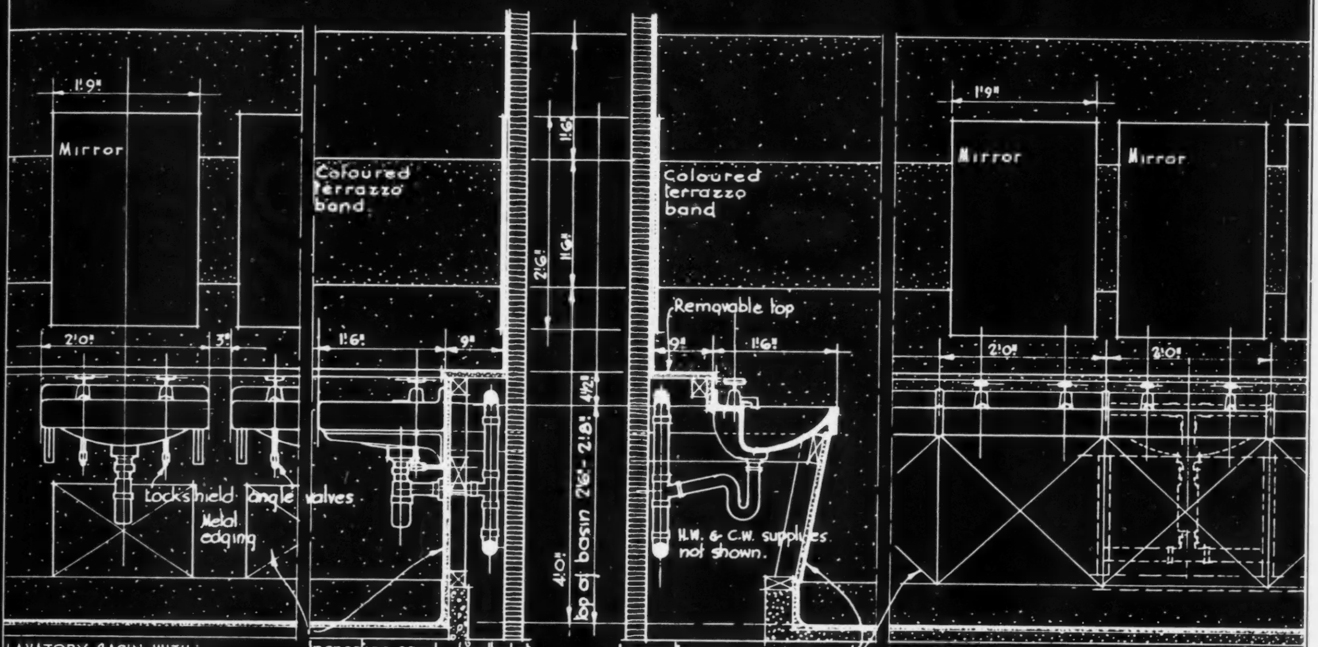


2φ⅝"
15'-1"
2φ½"
2φ½"
2φ⅝"
2φ⅝"
2φ½"
2φ⅝"
6" c/c
¼" φ bars @ 9" c/c
6" c/c
2φ⅝"

BEAM 31

CONSTRUCTION	The reinforced concrete work is chiefly confined to the external walls, which are formed of concrete frames with 9ins. brick infilling, finished externally with cream cement rendering. Reinforced concrete is also used for the staircase and gallery in the hall, the external balcony, the shelter on the roof, and for internal lintels and ties.
PARTITION WALLS	Brick or breeze blocks.
FIRST FLOOR AND ROOFS	Of wood joist construction on account of cost.
ROOFS	Finished with standard flat roofing (bituminous felt) and macadam.
FLOORING (GROUND FLOOR)	Whole of ground floor with exception of boilers, larder, maids' w.c., tradesmen's vestibule, store and garage, finished in jointless flooring on concrete sub-floor. Boilers, larder, etc., in granolithic concrete.
FLOORING (FIRST FLOOR)	Bedroom No. 1 in jarrah; all other rooms in Japanese oak. Stairs and steps from gallery level in American oak.
HALL FIREPLACE	Reconstituted marble.
HEATING AND HOT WATER, ETC.	Boiler with indirect cylinder for domestic supply; it runs eleven flush heating panels placed beneath windows.
FUEL	Oil, burnt in automatic oil burner, under aquastatic control; also fitted with clock attachment for automatic starting at any time dialled. Oil from supply lorry is pumped to fuel storage tank through stand-pipe in hedge on roadside. No coal or coke used—wood fire in hall.
SECONDARY HEATING	Gas fires in all bedrooms and in study, dining recess and kitchen.

NOTE: *For plans of this house, see page 523 of this issue*

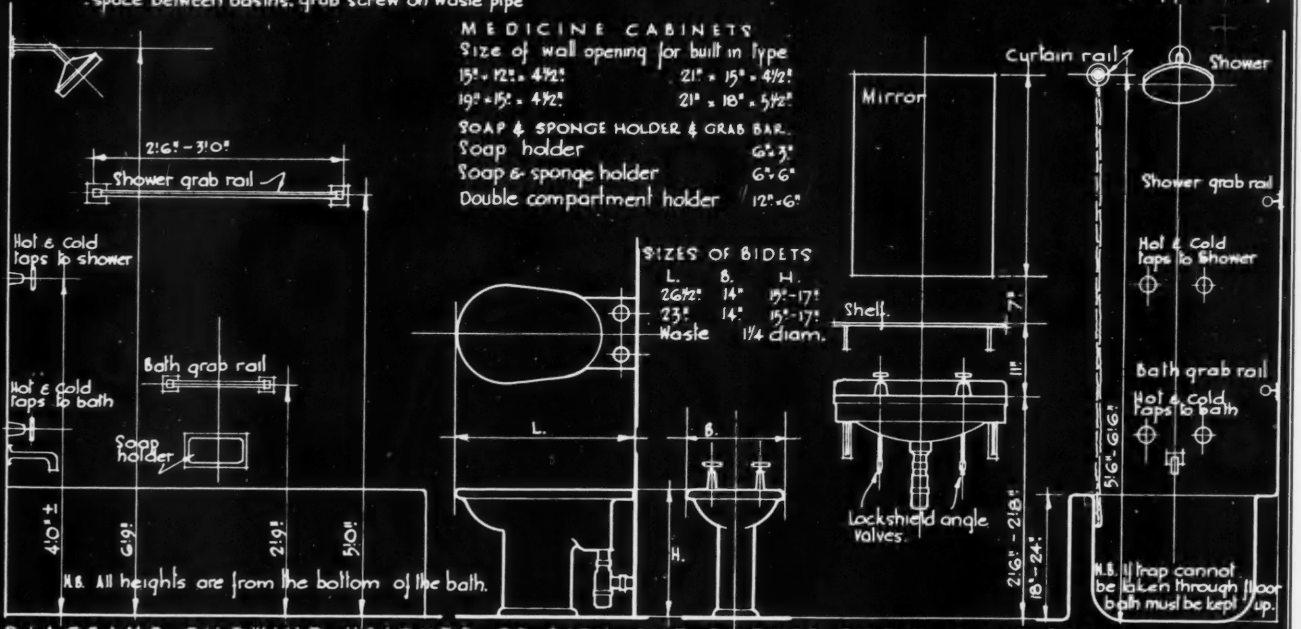

1'9"
Mirror
2'0"
3"
Lockshield angle valves
Metal edging
Coloured terrazzo band
1'6"
9"
1'6"
11'6"
2'6"
4'0"
4½"
Top of basin 2'6"–2'8"
Coloured terrazzo band
Removable top
9"
1'6"
H.W. & C.W. supplies not shown.
1'9"
Mirror
Mirror
2'0"
2'0"

LAVATORY BASIN WITH:
: pipes enclosed
: traps exposed
: space between basins.

Inspection panels dowelled at the bottom edge and held at the top by metal collar and grub screw on waste pipe

Inspection panels screwed top and bottom.

LAVATORY BASIN WITH: overlapping sides
: all pipes & traps enclosed
: sloping front casing.


2'6"–3'0"
Shower grab rail
Hot & cold taps to shower
Bath grab rail
Hot & cold taps to bath
Soap holder
4'0" ±
6'9"
2'9"
5'0"
N.B. All heights are from the bottom of the bath.
L.
B.
H.
Mirror
Shelf.
7"
11"
Lockshield angle valves.
2'6"–2'8"
18"–24"
Curtain rail
Shower
Shower grab rail
Hot & cold taps to shower
Bath grab rail
Hot & cold taps to bath
5'6"
6'6"
N.B. If trap cannot be taken through floor bath must be kept up.

MEDICINE CABINETS

Size of wall opening for built in type

15" × 12" × 4½"	21" × 15" × 4½"
19" × 15" × 4½"	21" × 18" × 5½"

SOAP & SPONGE HOLDER & GRAB BAR.

Soap holder	6" × 3"
Soap & sponge holder	6" × 6"
Double compartment holder	12" × 6"

SIZES OF BIDETS

L.	B.	H.
26½"	14"	15"–17"
23"	14"	15"–17"

Waste 1¼ diam.

DIAGRAMS SHOWING HEIGHTS OF BATH AND SHOWER FITTINGS, LAV. BASINS AND BIDETS.

COMMON SIZES OF LAVATORY BASINS

Wall and pedestal types:

36" × 24"	24" × 20"	22" × 16"
30" × 22"	24" × 18"	21½" × 12"
27" × 20"	24" × 16"	20" × 16"
25" × 12"	22" × 20"	18" × 14"
	22" × 18"	

Heights: wall basins 2'6" to 2'8"
pedestal basins 2'6" to 2'8"
Waste: 1½" diam.

COMMON SIZES OF BATHS.

with square ends:		with a semicircular end:	
5'6" × 2'4"	5'11" × 2'9"	from	4'0" × 2'
5'6" × 2'6"	6'0" × 2'9"	to	6'8" × 2'8"

Waste 1½" or 2" diam.

FALLS IN BRANCH PIPES PITCHED AT 92½°

Horizontal run in feet:	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
Fall of ℄ of pipe in inches:	1	2	3	4	5¼	6¼	7¼	8¼	9¼	10½	11½	12½	13½	14½	15¾.

INFORMATION SHEET: PLUMBING AND SIZES OF LAVATORY BASINS, BIDETS AND BATHS

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS • 14 • PLUMBING TO BASINS, ETC.

INFORMATION SHEETS

• 14 •

PLUMBING TO BASINS, BATHS, ETC.

•

THIS week's Information Sheet again extends the data in regard to plumbing. With Nos. 1 and 5, already published, urinals, w.c.'s, lavatory basins, baths and bidets have now been covered, while the two immediately preceding issues have been concerned with a typical lavatory. There are still to appear Sheets relating to pipes and drainage.

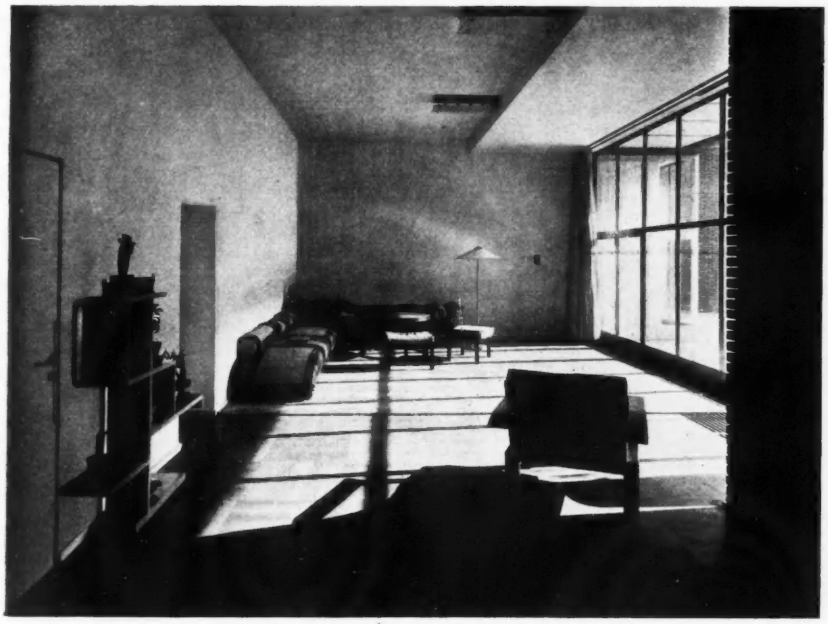
Again, in this week's issue, an Information Sheet figures amongst the advertisements; on pp. xxiii-xxiv will be found details and data concerning hollow building blocks, prepared by the manufacturers (Messrs. J. H. Sankey & Sons) for the information of their architectural clients. This is perforated, so that it can be torn out and filed for reference.

The following is a full list of the subjects previously issued :—

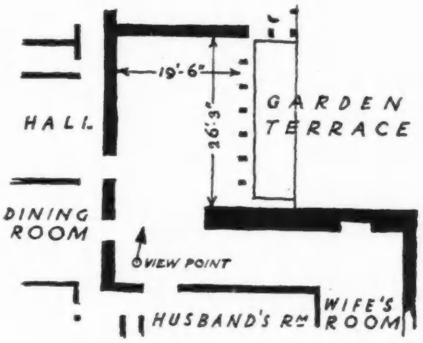
1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary accommodation.
12. April 5—Lavatory Units.
13. April 12—Lavatory Units.

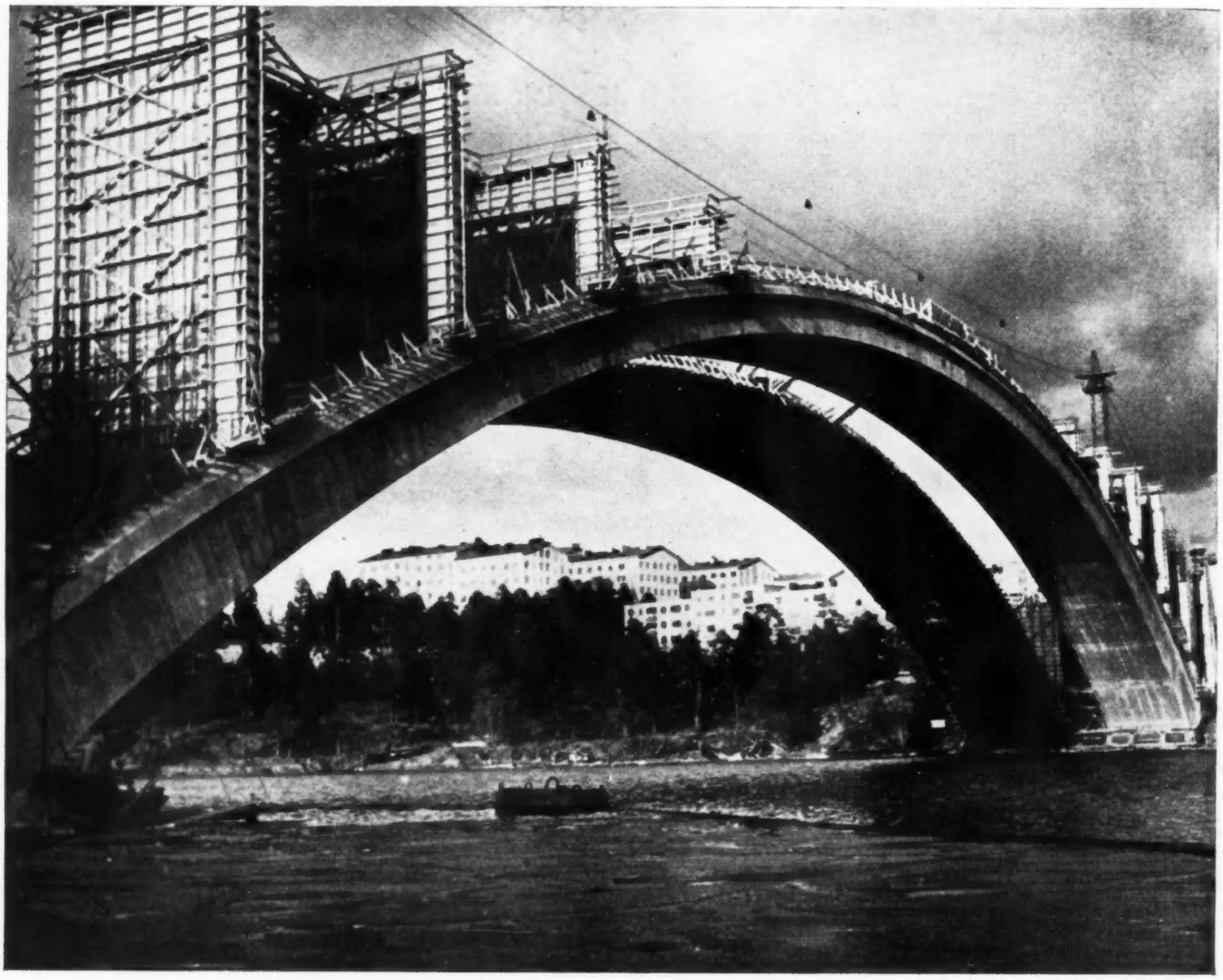
A HOUSE AT INNSBRÜCK

THE LIVING ROOM ABROAD TODAY



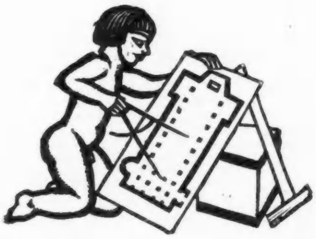
THE vast window of this house at Innsbrück, Austria, forming one side of the room, can be lowered into the ground by operating a small electric motor. The plan shows how the living room is related to the other principal rooms of the house, including the separate sitting rooms of husband and wife. The architect is Lois Welzenbacher. The illustrations are reproduced from the first number (for May) of Design for Today, *just published. See also Astragal's notes on pages 548–9.*


19'-6"
26'-3"
GARDEN TERRACE
HALL
DINING ROOM
VIEW POINT
HUSBAND'S Rm
WIFE'S ROOM



A NEW
CONCRETE BRIDGE
IN
SWEDEN

A view of the new Tranebergs Bridge now nearing completion at Stockholm, Sweden. The arches are claimed to be the largest yet built of concrete, having a span of 180 metres and a navigation height of 26 metres. The length of the bridge is 580 metres.



A PLANNING BOARD FOR LONDON

THE *Architectural Review* in a recent issue has made a suggestion with regard to the future planning of London which we think worthy of closer examination.

We have already indicated in the pages of this JOURNAL the attempts so far made by official and unofficial bodies in this connection, and the lack of municipal co-ordination. We await the next report of the Greater London Regional Planning Committee as to *definite* proposals for the development of outer London. Meanwhile, the activities of this body do not, as we understand, include any scheme for the replanning of the central core, beyond the general proposition of the "decentralization of industries," etc.

Monday's discussion by the L.C.C. on slum clearance, arising out of Ministry of Health Circular No. 1331, revealed the magnitude of the problem and showed that it cannot be dealt with as an isolated section of the general plan.

This important central work, involving monumental civic planning and slum clearances on a vast scale, devolves, under the Town and Country Planning Act, upon the London County Council. We are unaware what attitude the L.C.C. intends to take in respect of its augmented powers under the above Act, but we surmise that the difficulties attendant upon a drastic application of it will probably induce them to confine their activities to certain particular areas where development is likely to take place, and which can be more easily dealt with under its powers. This appears to be the view of such an authority as Dr. Adams in a recent lecture when he also advocated a "guiding plan in broad outline for the whole metropolis."

Who is to prepare this plan, and how far is it to be translated into action?

Whatever may be the attitude of the authorities concerned, it is evident that there are considerable limitations, both to the powers and scope of these bodies, as at present constituted. The reaction of economic forces has more than ever made the replanning, efficient functioning and development of the London region a national concern. Pending the formation of a body which can deal with these matters on a nation-wide scale, which was strongly advocated by economic experts in our New Year issue for January 11, the formation of a London Planning Board seems to be both wise and desirable.

The London Transport Board, which emerges as a consequence of recent transport legislation, is a step in this direction. The extension of traffic regulations cannot in themselves, however, solve a problem which requires a drastic reconsideration of the main lines of communication and the general street plan.

A London Planning Board would include much more than municipal and governmental representation. It would include representatives of the railways, road transport, Port of London, industrial and property-owning interests, electrical power, banking and finance. It would be in a position not only to lay down the lines of a plan, but to initiate development on a large scale by combining State loans, private enterprise and public finance, either by direct action following its planning proposals, or by guaranteed subsidiary companies developing along the lines indicated and approved by the Board.

It would be further essential that all proposals of a certain magnitude or involving drastic change of usage of a district should come before the Board for approval. We have in mind such propositions as the Adelphi scheme, King's Cross airport, etc. The preservation and scheduling of certain areas and buildings from demolition further requires a plan of demarcation which will render nugatory such violations of civic planning and æsthetic sense as the recent Carlton Gardens affair.

In advocating the formation of such a Planning Board for London we do not wish to minimize the present activities or potential activities of the London County Council and its adjoining authorities. At the same time it appears to us quite evident that these bodies in themselves, under the present circumstances, cannot cope with, or carry the whole burden of, a civic reorganization of national urgency which is without parallel in any municipal planning so far attempted.

It is a task for the chief citizens of this Grand Babylon to get together with the authorities and envisage, and carry out an organic and fundamental development worthy of the problem.

Persistent failure to co-operate must lead first of all to further confusion, and then to the inevitable reaction therefrom, namely, the stricter dictatorial State control, plainly visible in the world around us today—a development that few business interests can wish to see in England.

NOTES & TOPICS

DESIGN ON AND IN THE AIR

LAST week the first of the broadcast talks on "Design in Modern Life" enabled Messrs. John Gloag, Geoffrey Boumphrey and Edward Halliday to address themselves to the congenial task of pointing out what was wrong with contemporary design. It would have been simpler, and maybe a trifle more hilarious, had they used a few more concrete examples of design going wrong (and right).

*

As it was, the song sung by the Weston Brothers summed up their views: "Oh, it *has* gone down!"

*

But this introductory talk must have stirred innumerable listeners into unusual ways of thought about the subject of design, and it was an indisputable appetizer for the rest of the series. Many a household will be vaguely troubled from now on regarding what Mr. Halliday called "ye olde flickeringe yule-logge electric radiator."

*

FAKE'S PROGRESS

Meanwhile more and more traders and citizens embellish their shops and their homes according to these ancient lights. I saw the other day in the Strand a notice with "Ye Olde Chemyst's Shoppe" swinging above the latest thing in hygienically-packed super-modern toothbrushes.

*

"GIVE TASTE IN OUR TIME"

If only there could be an answer to that additional prayer that John Galsworthy once suggested: "Give taste in our time, oh Lord!" Still, a comforting idea of the excellent taste that is occasionally controlling design was provided by a small, well-selected exhibition of photographs, arranged recently by the Design and Industries Association in the hall of Charing Cross Underground Station.

*

An ampler and most promising record of good modern work is in the first number of *Design For To-Day*, a new monthly magazine which incorporates *Design in Industry*, the D.I.A. quarterly. The abundant illustrations show that the improvement of design is being taken seriously not only by designers and publicists, but by manufacturers.

*

Mr. Gordon Russell contributes an article (the first of a series under the title "The Designer and His Problem"), on the designing of the cabinet for the Murphy radio set, and it is to be hoped that others uphold the value of this first one.

*

Mr. Russell was lucky in his association with an industrialist of vision and enthusiasm; but that chance in itself could not by any means solve the problem, which was an entirely new one—that of enclosing a mechanical unit in a box neither "mock Queen Anne nor woolly American."

*

After the trials and tribulations through which this magazine has passed, I hope to see it flourish and wax exceeding influential; it has it in its power to do much for the cause of good design by exposing the bad.

*

Incidentally, I think the editor ought to have a pillory in each issue, for the adequate mocking of stupid things, and of the people who perpetrate them.

*

Design For To-Day reveals what a varied number of things *are* well designed. It stands for good sense rather than newness for its own sake.

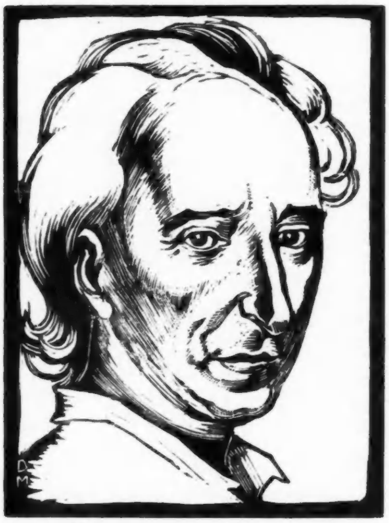
*

Mr. Joseph Emberton, in an article in *The Evening Standard* last week, did likewise. He upheld good sense rather than newness in discussing the rebuilding of London. He described Le Corbusier's *City of To-Morrow* (which Mr. Trystan Edwards once named "The Dead City") and packed two columns full of sense in support of residential towers for slum-cleared areas.

*

"FUMIFUGIUM"

I referred some weeks ago to the intention of the National Smoke Abatement Society to reprint John Evelyn's *Fumifugium*. A copy of the sixpenny new edition is now before me. It has as frontispiece this portrait of Evelyn.



John Evelyn, author of "Fumifugium."

The dedication of these "remedies humbly proposed" is "to his Sacred Majestie (Charles II) and to the Parliament now assembled" (1661). And their nature is, briefly, that all "works be removed five or six miles distant from London"—in the direction of Greenwich.

*

Evelyn was a town planner before his time: he includes a plea for open spaces and plantations in the town of London. He was not to foresee the time when the manufacturing quarter would extend down-river to Dagenham and beyond, nor the ameliorations due to the introduction of anthracite and electricity, of coke and gas.

*

All that has happened since his day has done little or nothing to mitigate what Miss Rose Macaulay terms, in her introduction, "the hellish and dismal cloud of sea-coal which broods over cities and which is a nuisance of all time." Sooner or later this evil must be met, and Evelyn's doctrine of zoning holds as good as ever. London and other areas *must* be organized.

A hansom cab outside the Carlton Club.

HANDSOME IS AS HANSOM DOES

Joseph Aloysius Hansom, inventor of the cab, was by profession an architect with what we should consider today to be a very useful practice—mainly ecclesiastical. He was born at York in 1803 and lived (as it was only proper that the inventor of such an astonishing contraption should live) to the ripe age of 79.

*

It is just upon one hundred years since he introduced his famous " safety carriage " to a wondering world. He sold his patent for £10,000 to a firm which promptly got into financial difficulties, and he never saw a penny of his money. No doubt his experience as an architect softened for him the shock of not receiving his fees.

*

Anyway, nothing daunted, he invented *The Builder* the next year and our contemporary shows no signs of following the cab into oblivion.

*

It was this same Hansom who was architect of Birmingham Town Hall—which nearly ruined him financially because he had been unwise enough to become bond for the builder.

*

" BUILD NOW ! "

I was glad to note at the Ideal Home Exhibition last Saturday that Mr. H. B. Bryant had been busy distributing " Build Now ! " cards to the owners of the stands. They were prominently displayed by the various exhibitors, and I hope their slogan will be taken up by the general public.

*

Mr. Bryant further tells me that a number of two-colour posters on the same lines have been prepared. They are in two sizes : 30 in. by 40 in. for display on building jobs, hoardings, etc., and a smaller size, reproduced herewith (10 in. by 14 in.), for display in offices, in windows, on lorries, etc. A small gummed stamp has also been printed, to be used by supporters on their correspondence.

BUILD NOW

Building will relieve unemployment. Great Britain can build her way back to prosperity. Proceed with your plans ; build now !

*

PEACEHAVEN PUTS TO SEA

The Cunard liner *Berengaria*, in which the Prime Minister sailed for America on April 15, has just been " reconditioned "—*and* redecorated—as though to make it worthy of the Nation's Envoy Extraordinary. The following details are culled from *The Times :*

*

> In pursuance of the Cunard's policy of keeping its ships abreast of the times . . . Tourist-Class passengers will find an innovation which is sure to please : a long Tudor gallery on the port side, two hundred yards in length, with an attractive old-world atmosphere. Trees from the New Forest were used in the cleft-oak, half-timbered treatment of the gallery's plaster walls, and the iron grilles and brackets were made and wrought in smithies. . . . The general impression received on a tour of the ship was of comfort and quiet elegance.

*

Footnote to the above.—The Cunard's deficit on last year's operations was £400,000. The Norddeutscher Lloyd, the owners of the *Bremen* and *Europa*—which are, shall we say, *rather differently*, anyhow *less luxuriously* decorated—made a profit.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, April 26

IDEAL HOME EXHIBITION. At Olympia, Kensington, S.W. 10 a.m. to 10 p.m. Until April 29. 10 *a.m.*

INSTITUTE OF LANDSCAPE ARCHITECTS. At the Royal Horticultural Hall, Westminster, S.W. " Preservation of Rural England." By A. B. Knapp-Fisher, F.R.I.B.A. 3.30 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. Scottish Branch. *At 129 Bath Street, Glasgow.* " Some Problems in Steelwork Design." By W. Basil Scott (Junr.). 7.30 *p.m.*

LIVERPOOL ARCHITECTURAL SOCIETY, Bluecoat Chambers, School Lane, Liverpool. Annual General Meeting. 6 *p.m.*

NATIONAL HOUSING AND TOWN PLANNING COUNCIL. Annual Conference of local authorities in Lancashire and Cheshire. *At the Town Hall, Manchester.* 11 a.m. to 1 p.m. and 2.30 p.m. to 5 p.m. 11 *a.m.*

Thursday, April 27

ARCHITECTURE CLUB. At the A.A., 34 *Bedford Square, W.C.*1. Supper and Discussion : " Should Buildings have an Age Limit ? " Supper 7.30 p.m. Discussion 8.30 p.m.

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.*1. " Reinforced Concrete Staircases." By A. B. Dailey, A.R.I.B.A. 6.30 *p.m.*

Friday, April 28

TOWN PLANNING INSTITUTE. At Caxton Hall, Caxton Street, Westminster, S.W. General discussion on the new powers contained in the Town and Country Planning Act, 1932, for prohibiting or regulating building operations. 6 *p.m.*

*DESIGN AND INDUSTRIES ASSOCIATION. At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.*1. " Revolutions in Civilization." By R. A. Duncan, A.R.I.B.A. Discussion to be opened by Darcy Braddell, F.R.I.B.A. 8.15 *p.m.*

Saturday, April 29

Sunrise 5.37 a.m. Sunset 8.19 p.m.

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. Annual Dinner and Dance, to be held at the *Florence Restaurant, Rupert Street, W.* 6.45 for 7 p.m. 6.45 *p.m.*

Monday, May 1

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*1. " Aerodrome Design." By Nigel Norman. 8 p.m. Also, exhibition of photographs, etc., depicting the progress of air travel. Until May 25. (10 a.m. to 10 p.m.) 8 *p.m.*

NEWS

●

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All money other than coin exists as debt to banks and could be destroyed by them at will 557

An "ideal" house in which dining-room and kitchen are intelligently (!) connected by a staircase passing beneath the living room 557

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●

MODERN ARCHITECTURAL RESEARCH

Some years ago a number of well-known Continental architects formed what is known as "The International Congresses for Modern Architecture"—an association of various national groups of architects united by a common realization of the necessity for a new conception of architecture and its relation to the structure of society today.

Many solutions of contemporary architectural problems—such as, for instance, the problem of the "Minimum Dwelling"—have been discussed and formulated at the Congresses, which have been held at La Sarraz, Switzerland (1928), Frankfort (1929), and at Brussels (1930) when official delegations from 19 national groups—not, however, including Great Britain—attended.

At the invitation of the President and Secretariat of the international association, Mr. Wells Coates has now formed the nucleus of a British group of architects, engineers and town planners, whose work will be officially associated with the research programme of the International Congresses.

The new group will be known as the "Modern Architectural Research Group." Programmes and procedure for immediate research are now being prepared, and further details will shortly be published in the leading architectural journals.

The hon. secretary is Mr. F. R. S. Yorke, A.R.I.B.A.

The first annual meeting of the Building Industries National Council was held at the R.I.B.A. on April 13. Sir Raymond Unwin presided.

The reports of the General Purposes Committee and the Special Committee for Public Relations were presented by the chairmen, Messrs. Sydney Tatchell, V.-P.R.I.B.A., and Howard Robertson, F.R.I.B.A., respectively. The latter said there could be no doubt that the educative campaign conducted by the Committee has played a major part, and certainly an essential part, in influencing, if not converting, public opinion with regard to wise spending. It was felt that a further impetus might be given to the work of the Committee by the formulation of a definite plan showing the types of work which in the wide sense would best satisfy the conditions of being remunerative and of meeting real needs, while at the same time absorbing the maximum number of unemployed.

Mr. Kenneth Thomas, of Messrs. Kenneth Brown, Baker and Baker, was appointed honorary solicitor.

Subscriptions to the Fund, which has now reached the sum of £2,571-15-10 should be sent to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

A NATIONAL HOUSING PLAN

Sir Raymond Unwin, P.R.I.B.A., will speak on "A National Housing Plan" at the next monthly luncheon of the Thirty-Two Club, to be held at the Northumberland Rooms, Northumberland Avenue, Trafalgar Square, on May 3.

MANCHESTER EXHIBITION

The Manchester Building Trades Exhibition was officially opened at the City Hall, Deansgate, Manchester, yesterday, April 25. It will remain open until Saturday, May 6.

THE ARCHITECTURE CLUB

"Should buildings have an age limit?" This question is to be discussed at the supper-discussion of the Architecture Club to be held at the Architectural Association tomorrow night. The discussion (preceded by supper at 7.30 p.m.) will be opened by Mr. J. R. Leathart, F.R.I.B.A., at 8.30 p.m.

IDEAL HOMES EXHIBITION

A special meeting of the Design and Industries Association, presided over by Mr. E. Maxwell Fry, A.R.I.B.A., was held at Olympia on Monday last. The subject debated was the architectural lay-out of the Ideal Homes Exhibition, and the new ways in which building materials have been used therein. Mr. Ian Jeffcott, F.F.A.S., the architect for the Exhibition, was the principal speaker, and Mr. Serge Chermayeff, F.R.I.B.A., opened the discussion.

LECTURES ON ARCHITECTURE

A course of three lectures on "L'Architecture: Cadre de la Vie" will be given by Monsieur Louis Madeline (Architect-in-Chief of French Civil Buildings and National Palaces) at University College, Gower Street, W.C.1, at 5.30 p.m. on May 4, 5 and 8. The lectures will be delivered in French and illustrated with lantern slides. Admission is free.

HANTS. AND ISLE OF WIGHT ARCHITECTS

At a recent meeting of the Hants. and Isle of Wight Architectural Association, held at Portsmouth, it was stated by the Secretary, Mr. A. L. Roberts, that the Association had been approached by various town planning authorities to devise a scheme to help them in the criticism of the elevations of buildings submitted under the Town and Country Planning Act which came into force on April 1. Four meetings had been held jointly with representatives of town planning authorities together with builders and contractors in the various areas of the county, and as a result it had been suggested that the most workable scheme would be for the Association to set up a local panel of architects, consisting of three members, to give voluntary assistance in criticizing schemes.

To avoid the delay which would occur when schemes were completed before being submitted to a local authority for approval, it was suggested that schemes should be submitted to the panel in the preliminary stages while still in pencil, so that any alterations required might be made before the schemes were officially submitted to the authorities for approval.

The meeting were unanimously in favour of this line of action.

FORTHCOMING DINNER

The annual dinner of the Auctioneers' and Estate Agents' Institute will be held at the Connaught Rooms, London, on Thursday, May 11, 6.30 for 7 p.m.

L.C.C. AND SLUMS

A special meeting of the London County Council was held on Monday last to consider a motion by Mr. Herbert Morrison "that the Housing Committee be instructed to prepare forthwith a programme of slum clearance schemes in accordance with Circular 1331 of the Ministry of Health, dated April 6, 1933," which calls upon local authorities to prepare and adopt forthwith plans for the clearance of slums within five years.

Mr. Selley moved an amendment to the effect that "inasmuch as the receipt of Circular 1331 of the Ministry of Health, dated April 6, 1933, was followed by action with a view to the proposals in the circular being dealt with at the first meeting of the appropriate sub-committee of the Housing Committee on April 26, 1933, a special instruction to the committee on the subject is unnecessary."

After much discussion, Mr. Selley's amendment was adopted by 65 votes to 36.

EDINBURGH ARCHITECTS

The third of the visits arranged by the Edinburgh Architectural Association was made to St. Ninian's Church, Restalrig, on Thursday last. The architect of the new church is Sir Giles Gilbert Scott, R.A.

HULME SLUM CLEARANCE

It is expected that at the meeting of the Manchester City Council, to be held today, a decision will be reached on the Hulme Slum Clearance Scheme.

CONFERENCE OF LOCAL AUTHORITIES

Today, April 26, the annual conference of local authorities in Lancashire and Cheshire will be held at the Lord Mayor's Parlour, Town Hall, Manchester, from 11 a.m. to 1 p.m. and 2.30 p.m. to 5 p.m. The conference will consider the following subjects:

1: The General Housing Situation and the Effects of the Housing (Financial Provisions) Act, 1933.
2: The Problem of the Slum, and the Administration of the Housing Acts, 1925 and 1930.
3: The Rural Housing Problem, including the Administration of the Housing (Rural Workers) Acts, 1926 and 1931.
4: The Town and Country Planning Act, 1932.

Arthur J. Davis, F.R.I.B.A., who, at a general assembly of the Royal Academy last Friday, was elected an Associate of that Body.

WEST YORKSHIRE SOCIETY OF ARCHITECTS

At the annual meeting of the above Society, held at its Leeds headquarters on Thursday last, the following officers for the ensuing session were elected:

President (second year) Mr. B. R. Gribbon, F.R.I.B.A.; vice-presidents, Mr. Victor Bain, F.R.I.B.A., and Col. H. W. Barker; hon. secretaries, Messrs. Norval R. Paxton, A.R.I.B.A., and Harold Conolly, A.R.I.B.A.; hon. treasurer, Mr. Douglas Bowman, L.R.I.B.A.

In the report of the Council for the year 1932-33 it was stated that the membership of the Society at the close of the session stood at 419, a net increase of 23 members over the number for the previous year. It was also pointed out that one of the most important events of the year was the bequest to the Society by the late Mrs. Ellen Brown Bedford, widow of James Edward Bedford, former Lord Mayor of the City of Leeds, and brother of the late Frank Bedford, member of the Council of the Society in 1903 and 1904, of her residuary estate for the purpose of founding one or more travelling Studentships. These are to be known as "The J. E. Bedford Studentships." The Council understands that certain funds will be available for the Studentships in the coming session, and further conditions for the holding of the Studentships will be drawn up and circulated in due course.

B. R. Gribbon, F.R.I.B.A., who has just been re-elected President of the West Yorkshire Society of Architects.

SHEFFIELD AND SOUTH YORKS. ARCHITECTS

The forty-fifth annual report of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, presented at the annual meeting held in Sheffield on April 20, showed that the membership of the Society is now 148 compared with 152 last year.

The officials and council were re-elected.

200,000 DWELLINGS NEEDED

Sir E. Owen Williams, K.B.E., in the first of three articles on housing in the current issue of *The Week-End Review*, writes:

> It is abundantly clear that the present housing accommodation in London and, generally, all over England, does not serve in any way the needs of the population either in quantity or kind. Its deficiency in quantity leads not only to overcrowding, but the discomfort, to say the least of it, of overcrowding is still further accentuated by the disproportion of kind or type.
>
> The immediate need in London is for about 200,000 new dwellings belonging in about equal numbers to types having two, three and four rooms each.

IMPORTANCE OF HARMONY

The Manchester and District Joint Town-planning Committee (states *The Manchester Guardian*) is about to publish a memorandum appealing for the co-operation of landlords and other interested in land development in an attempt to preserve and, as far as may be practicable, improve the amenities in the extensive area with which the Committee is concerned.

The Committee feels that much disfigurement, resulting from insufficient attention to the design of buildings, their siting in relation to their surroundings, and the use of unsuitable material, is caused through thoughtlessness, and that it is only necessary to draw the attention of those concerned to a few matters of detail to secure the improvement desired.

R. I. B. A.

COMPETITIONS

The papers on "Competitions: Past and Present," delivered by Messrs. H. V. Lanchester, F.R.I.B.A., and Percy E. Thomas, O.B.E., F.R.I.B.A., at Monday's meeting of the R.I.B.A., are summarized on pages 561-562 of this issue.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute:

Officers of the Board of Architectural Education: The Officers of the Board for the Session 1933-1934 were appointed as follows: Chairman: Mr. W. H. Ansell (F.); Vice-chairman: Mr. A. H. Moberly (F.) (Chairman of the Examinations Committee); Professor A. C. Dickie (F.) (Chairman of the Schools Committee); Mr. G. D. Gordon Hake (F.) (Chairman of the Prizes and Scholarships Committee); Mr. T. A. Darcy Braddell (F.) Hon. Secretary.

Fees for Housing Work, Re-conditioning, etc.: The following Special Committee was appointed to consider and report with the least possible delay on the question of fees for housing work, re-conditioning, etc: Messrs. E. G. Allen (F.); A. W. Kenyon (F.); T. Alwyn Lloyd (F.); Charles Woodward (A.); R. N. Mackellar (A.), and John Laing (Builder).

The Hertfordshire Society: Messrs. R. Barry Parker (F.) and Louis de Soissons (F.), were re-appointed to represent the R.I.B.A. on the Hertfordshire Branch of the C.P.R.E.

Dissolution of the Maritime Association of Architects (Canada): The formal approval of the Council was given to the dissolution of the Maritime Association of Architects in its present form and to the formation of the Nova Scotia Architects' Association and the Architects' Association of New Brunswick.

British Architects' Conference, 1934: It was decided not to hold a provincial Conference in 1934 in view of the R.I.B.A. Centenary Celebrations which will be held in that year.

W. H. Ansell, M.C., F.R.I.B.A., who has just been re-elected chairman of the Board of Architectural Education. This is his third year of office.

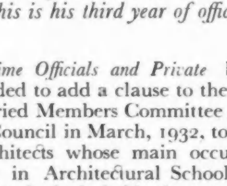
Whole-time Officials and Private Work: It was decided to add a clause to the report of the Salaried Members Committee approved by the Council in March, 1932, to the effect that architects whose main occupation is teaching in Architectural Schools are not intended to be included in the term "Whole-time Official" within the meaning of the Committee's report on Whole-time Officials and Private Work.

Amendment of Bye-Laws: The approval of the Privy Council to the amendment of Bye-Laws 28 and 34 was formally reported.

Transfer to the Retired Members Class: The following members were transferred to the Retired Members Class: As Retired Fellow: Mr. J. C. Hall. As Retired Associate: Mr. A. B. Wilson. As Retired Licentiate: Mr. J. Arthur.

Resignations: The following resignations were accepted with regret: Messrs. W. Brown (A.); J. E. Marchinton (A.); F. A. Allen (L.); A. E. Anderson (L.); T. M. Forrest (L.), and A. J. Penty (L.).

COMPETITION



NEWS

BUILDING CENTRE COTTAGE COMPETITION

The following awards, announced on Monday night, have been made in connection with the above competition:

First Prize £100

Mr. N. E. Leeson, of Messrs. Oliver & Leeson (Newcastle-on-Tyne). Mr. Leeson's design was accompanied by a Tender from: Messrs. Adam Carse, of Amble, Northumberland, undertaking to erect four cottages for the sum of £900.

A Special Prize of £10 10s.: Mr. S. W. T. Blythe, of New Barnet, Herts. Mr. Blythe's design was accompanied by a Tender from: E. G. Campion, of Victoria Road, New Barnet, Herts., undertaking to erect four cottages for the sum of £900.

A Special Prize of £5 5s.: Mr. H. U. Diplock, of Sterret, Glover & Diplock, A. and L.R.I.B.A., of 27 Buckingham Gate, S.W.1. Mr. Diplock's design was accompanied by a Tender from: Messrs. Walter Gale & Co., of 22 Milverton Crescent, Leamington Spa, undertaking to erect four cottages for the sum of £900.

Fifty designs have been selected from those submitted in connection with the competition, for an exhibition which will be held in June at the Building Centre, when a special housing month is being arranged.

It is proposed to erect a pair of cottages from the winning designs for exhibition purposes on a site in the Strand, and these will be on view to the public for a month or six weeks. Full details of the housing month and the special Housing Exhibition will be issued later.

Three hundred designs were received, each accompanied by a Builder's tender definitely undertaking to erect cottages at prices varying between £850 and £1,000 for two pairs.

SURBITON HOSPITAL

The conditions for the new hospital buildings to be erected at Hill Manor, Ewell Road, Surbiton, which were recently drawn up by Mr. C. Ernest Elcock, F.R.I.B.A., have now been approved and will be issued shortly.

Competitions Open

May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

May 30.—Sending-in Day. Royal Society of Arts Competitions for Industrial Designs. Applications for entry forms, instructions, etc., must be sent to the Secretary of the Society, at John Street, Adelphi, W.C., between May 1 and May 8.

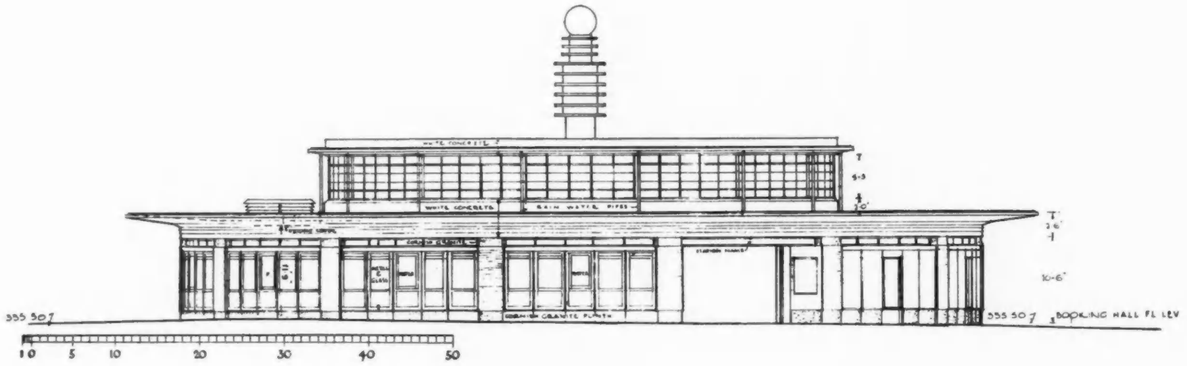
May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

June 3:—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums: £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

ON THE AIR

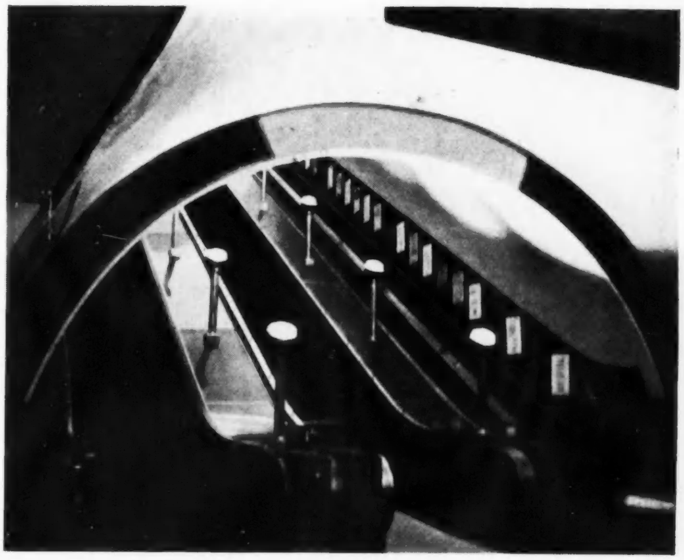
On Tuesday next, May 2, the third of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Mr. Gordon Russell, who will discuss "The Living-Room and Furniture."

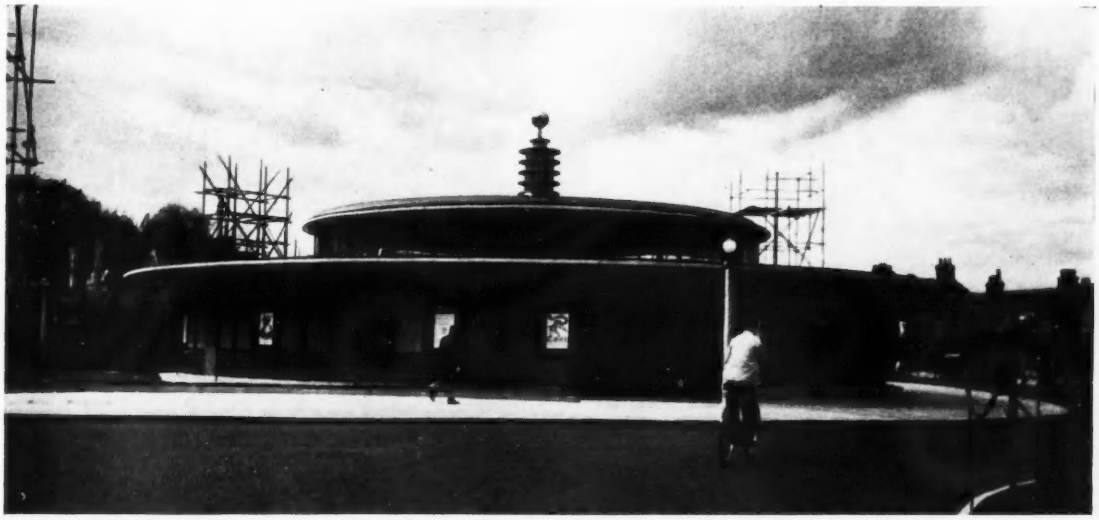
SOUTHGATE UNDERGROUND STATION


WHITE CONCRETE
WHITE CONCRETE
RAIN WATER PIPES
CORNISH GRANITE
STATION NAME
CORNISH GRANITE PLINTH
5-3
2'0"
2'6"
10-6"
555 50 7
555 50 7 BOOKING HALL FL LEV
10
5
10
20
30
40
50

The booking hall block at Southgate Station has been treated as a circular building in two stages, the lower covering the stalls, staff rooms, etc., with a wide projecting canopy, lighted from a box-light carried right round the building at the level of the station name fascias. The upper part consists of a continuous ring of metal-framed clerestory windows, the concrete roof being supported at the outside on small steel columns behind the window framing, and at the centre by a steel column. There are three entrances, arranged at intervals, so that the passengers are distributed, two streams in the directions of the existing High Street and Chase Side and the third towards the new bus draw-in road between the station and block of shops.

The internal finishings include bronze metal stall fronts with black and white tiling between and above them, the fascia line being further emphasized by a moulded bronze band and the stall boards providing colour in their painted cast iron panels. The central passimeter booking booth gives direct access to the escalators, shown in the adjoining view, leading down to the two tunnel platforms; these are finished with cream and orange wall tiling.



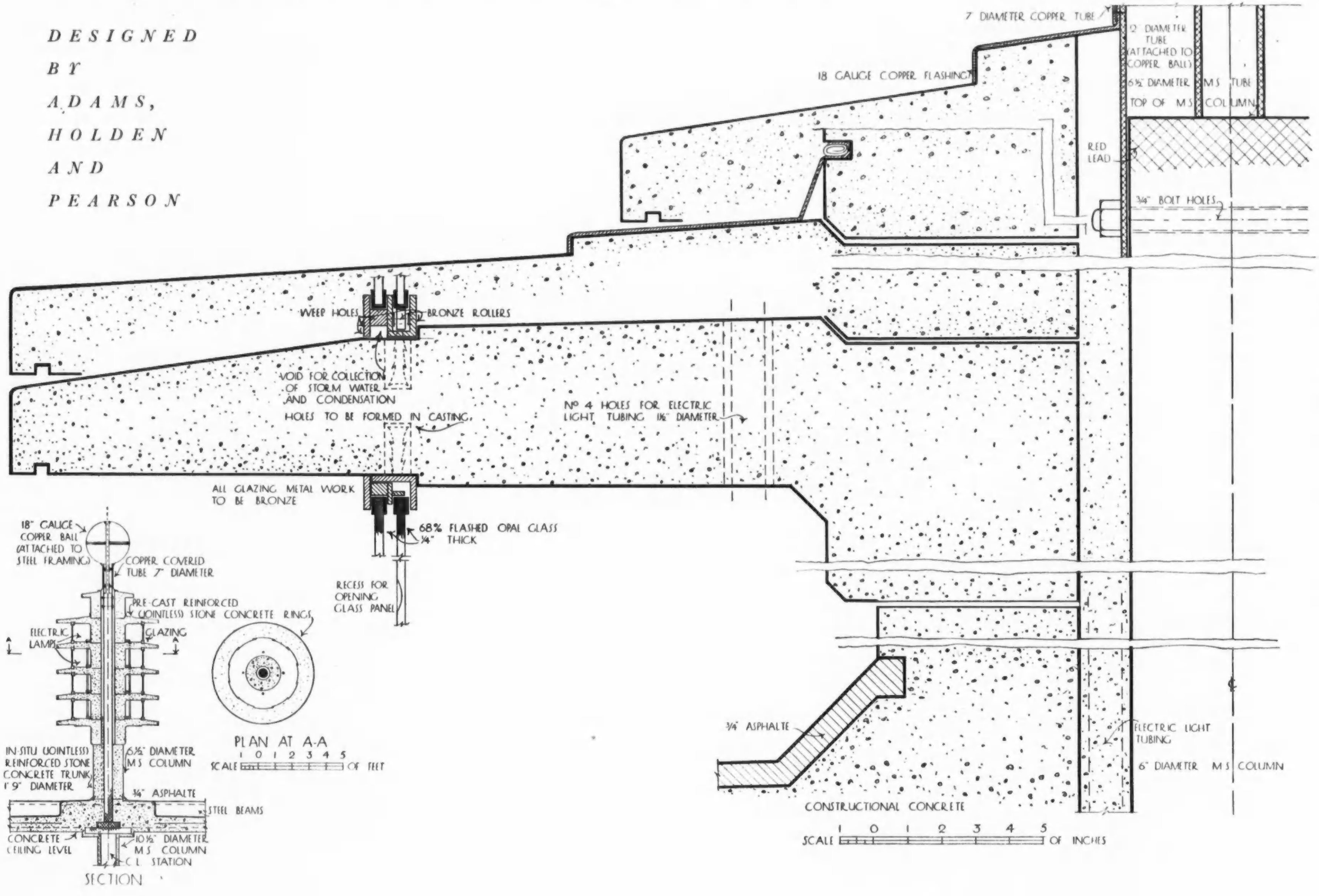


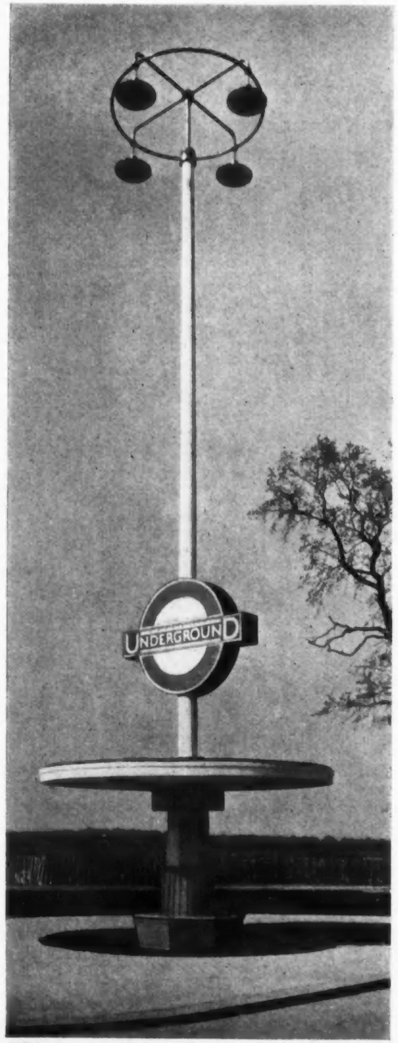
This photograph was taken last week; the scaffolding on the extreme left is for the lamp standard, of which drawings appear on page 555.

DESIGNED BY ADAMS, HOLDEN AND PEARSON

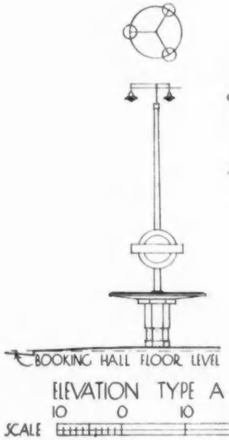
SOUTHGATE UNDERGROUND RAILWAY STATION

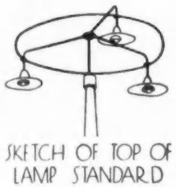
DESIGNED BY ADAMS, HOLDEN AND PEARSON


7" DIAMETER COPPER TUBE
2" DIAMETER TUBE (ATTACHED TO COPPER BALL)
6½" DIAMETER M S TUBE
TOP OF M S COLUMN
18 GAUGE COPPER FLASHING
RED LEAD
¾" BOLT HOLES
WEEP HOLES
BRONZE ROLLERS
VOID FOR COLLECTION OF STORM WATER AND CONDENSATION
HOLES TO BE FORMED IN CASTING
Nº 4 HOLES FOR ELECTRIC LIGHT TUBING 1½" DIAMETER
ALL GLAZING METAL WORK TO BE BRONZE
68% FLASHED OPAL GLASS ¼" THICK
RECESS FOR OPENING GLASS PANEL
¾" ASPHALTE
ELECTRIC LIGHT TUBING
6" DIAMETER M S COLUMN
CONSTRUCTIONAL CONCRETE
SCALE 1 0 1 2 3 4 5 OF INCHES
18" GAUGE COPPER BALL (ATTACHED TO STEEL FRAMING)
COPPER COVERED TUBE 7" DIAMETER
PRE-CAST REINFORCED (JOINTLESS) STONE CONCRETE RINGS
ELECTRIC LAMPS
GLAZING
A
A
IN-SITU (JOINTLESS) REINFORCED STONE CONCRETE TRUNK 1' 9" DIAMETER
6½" DIAMETER M S COLUMN
¾" ASPHALTE
STEEL BEAMS
CONCRETE CEILING LEVEL
10½" DIAMETER M S COLUMN
C L STATION
SECTION
PLAN AT A-A
SCALE 1 0 1 2 3 4 5 OF FEET

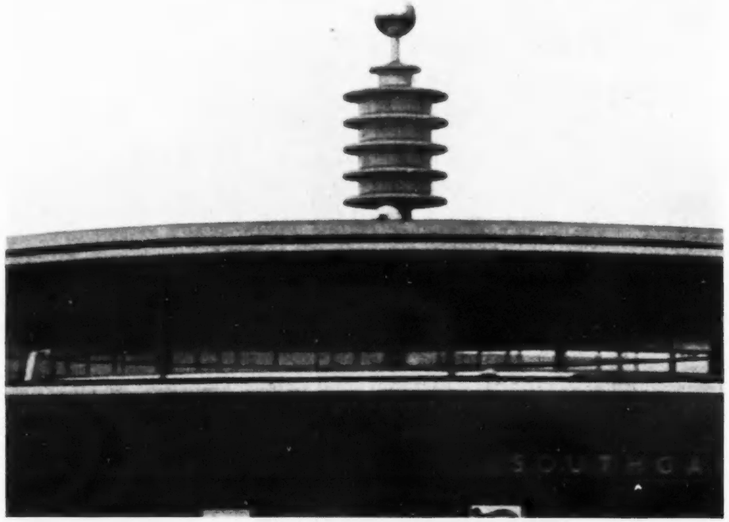


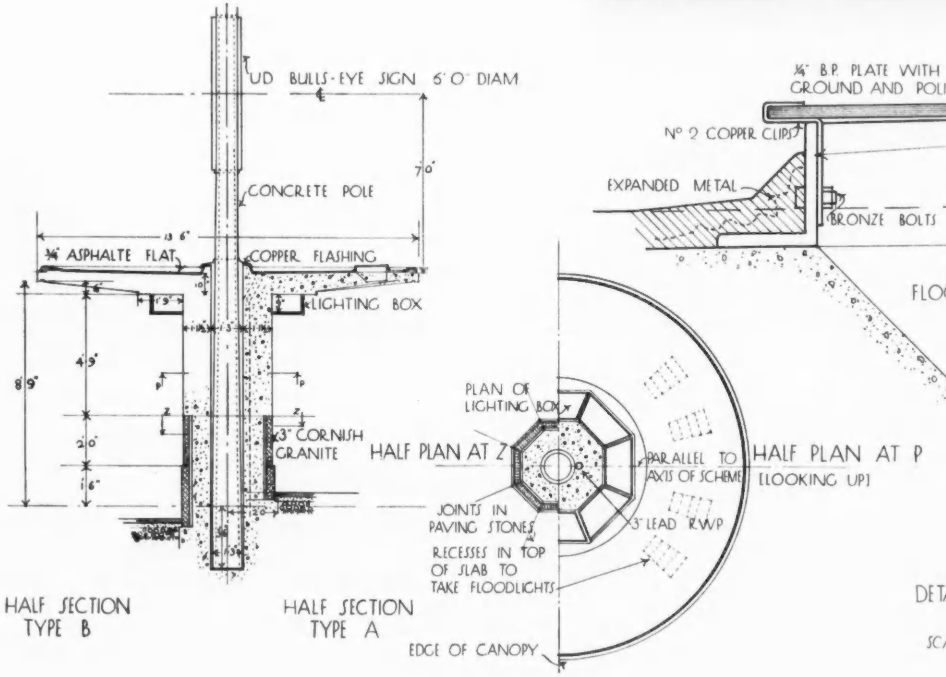
This is a photograph of a shelter-bullseye sign-lamp standard at Enfield West Station, designed by C. H. James. The design of that at Southgate, by S. A. Heaps, architect to the London Underground Railways, to which the detail drawings on this page refer, is on similar lines, but has three lamps instead of four.

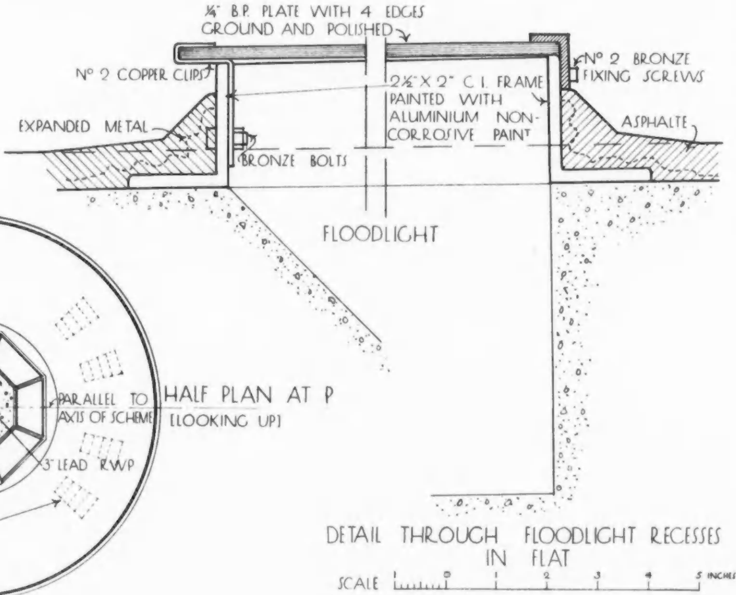

BOOKING HALL FLOOR LEVEL
ELEVATION TYPE A
SCALE 10 0 10 20 30 OF FEET


SKETCH OF TOP OF LAMP STANDARD

The drawings on the facing page give constructional details of the chessman-like central lantern on the roof of the booking hall, of which an elevation appears on page 553 and a section with plan on page 556. The lantern consists of pre-cast concrete rings, with glazed bronze frames between them, in front of the lights, surmounted by a spun copper ball. The publicity service it supplies is supplemented by two concrete masts, on either side of the building, carrying the usual bullseye sign.

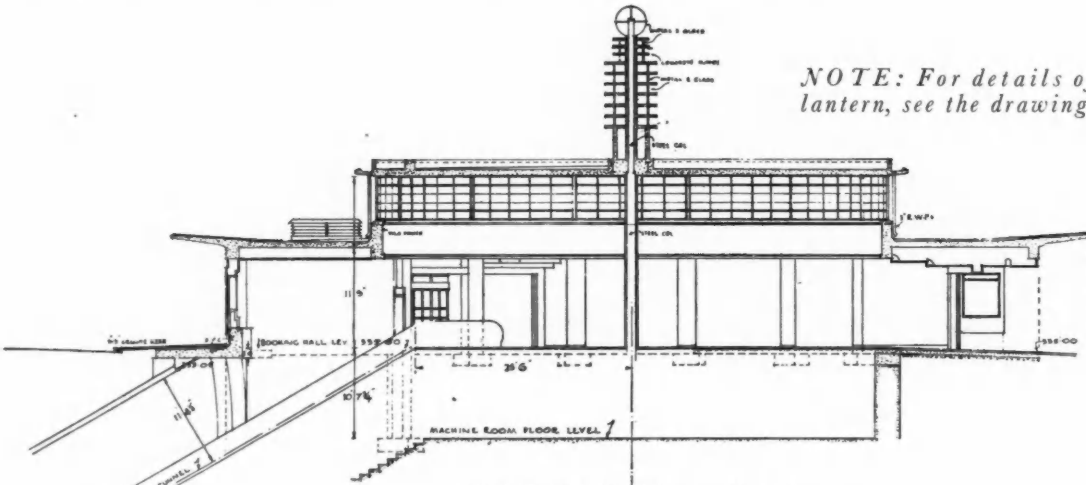



UD BULLS-EYE SIGN 5' 0" DIAM
CONCRETE POLE
7' 0"
13' 6"
¾" ASPHALTE FLAT
COPPER FLASHING
LIGHTING BOX
8' 9"
4' 9"
2' 0"
1' 6"
3" CORNISH GRANITE
HALF SECTION TYPE B
HALF SECTION TYPE A
PLAN OF LIGHTING BOX
HALF PLAN AT Z
HALF PLAN AT P [LOOKING UP]
PARALLEL TO AXIS OF SCHEME
3" LEAD R.W.P.
JOINTS IN PAVING STONES
RECESSES IN TOP OF SLAB TO TAKE FLOODLIGHTS
EDGE OF CANOPY

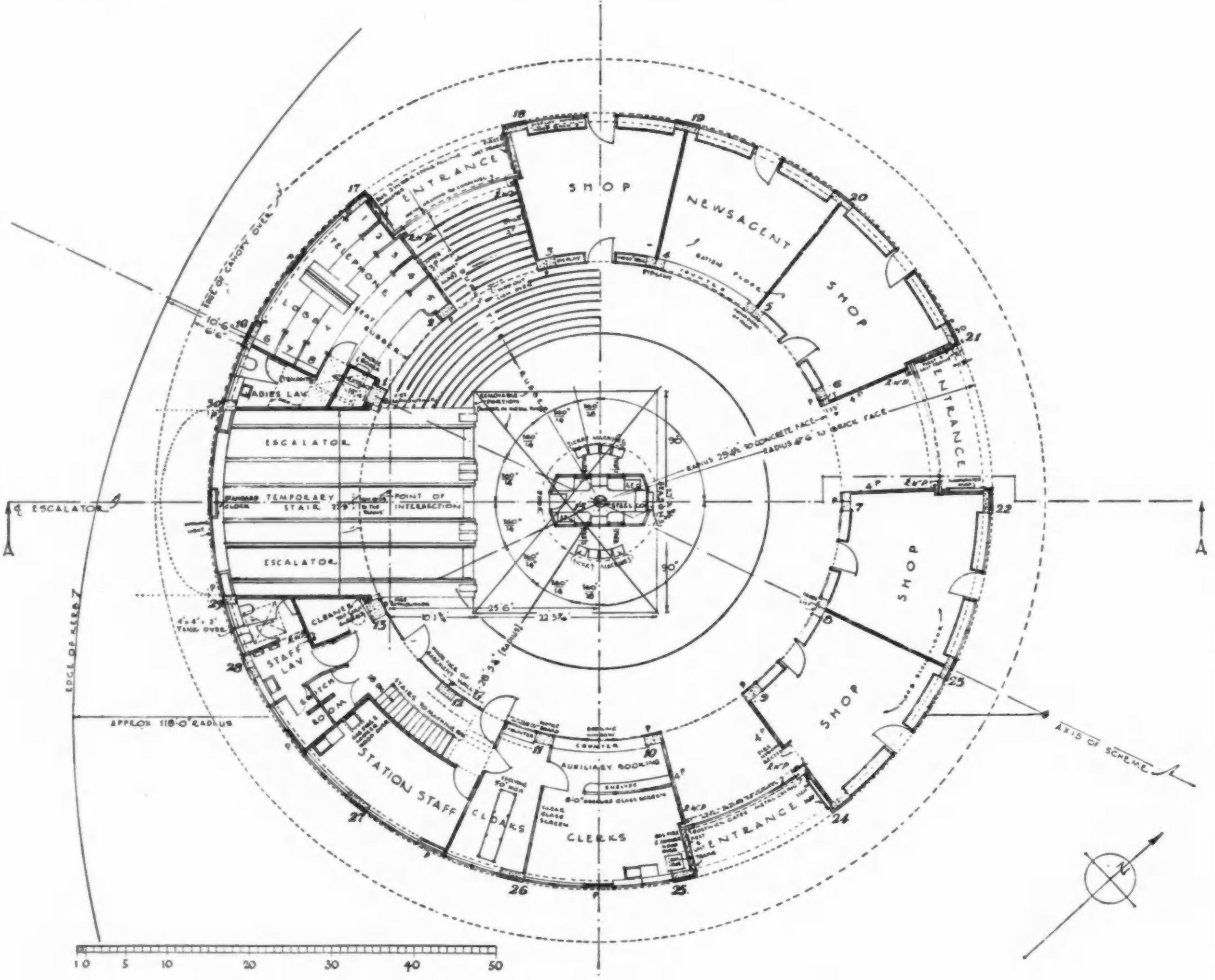

¼" B.P. PLATE WITH 4 EDGES GROUND AND POLISHED
Nº 2 COPPER CLIPS
Nº 2 BRONZE FIXING SCREWS
2½" X 2" C.I. FRAME PAINTED WITH ALUMINIUM NON-CORROSIVE PAINT
EXPANDED METAL
ASPHALTE
BRONZE BOLTS
FLOODLIGHT
DETAIL THROUGH FLOODLIGHT RECESSES IN FLAT
SCALE 0 1 2 3 4 5 INCHES

SOUTHGATE UNDERGROUND STATION

NOTE: For details of the central lantern, see the drawings on page 554.


BOOKING HALL LEV. 355·00
MACHINE ROOM FLOOR LEVEL
℄ TUNNEL
11'9"
10'6"
2'6"
25'6"
10'7¾"
355·00
STEEL COL.

SECTION · A - A ·


ENTRANCE
SHOP
NEWSAGENT
SHOP
ENTRANCE
SHOP
SHOP
ENTRANCE
CLERKS
CLOAKS
STATION STAFF
AUXILIARY BOOKING
COUNTER
STAFF LAV
CLEANERS
SWITCH ROOM
LADIES LAV
TELEPHONE LOBBY
ESCALATOR
TEMPORARY STAIR
POINT OF INTERSECTION
ESCALATOR
℄ ESCALATOR
A
A
APPROX 118'-0" RADIUS
EDGE OF KERB
AXIS OF SCHEME
25'6"
22 3/4
17
18
19
20
21
22
23
24
25
26
27
10 5 10 20 30 40 50

· GROUND · FLOOR · PLAN

DESIGNED BY ADAMS, HOLDEN AND PEARSON

LETTERS FROM READERS

ARTHUR WELFORD, A.R.I.B.A.
JOHN J. BLOWER
L. E. WALKER
(Kerner-Greenwood and Co., Ltd.)
A. C. STEVENSON
PERCY WALDRAM, L.R.I.B.A.
HOLFORD KNIGHT, M.P.

Financing Public Works

SIR,—May I make some comments on the remarks of your leader writer in the issue for April 12?

It is the inadequate bank credit/debt system which has been a main cause of slumdom. To continue financing the building of houses for the slum dweller on the same lines will succeed only in creating further slums. The financial blunder goes further back than the question of the foreign balance.

Your leader writer agrees that the proposed new loans will create debt, and I gather that he contends that the loans will come out of deposits. They will not; and it is necessary to any understanding of the present rules of credit finance to realize that bank loans do the opposite, that every bank loan creates an equivalent deposit—it comes out of nowhere. The same applies to money created by banks for purchases of Government stocks, debentures, etc., on their own account. Banks have a way of calling these created sums liabilities; the general public might look upon this power of creating money at will as an asset!

Cheques written against bank loans are mere scraps of paper until they are accepted by private creditors; it is industry in general which gives them any monetary value, and yet by doing so industry fastens a killing debt upon itself.

These hundreds of millions in the banks which are not being used in industry? *The Times* for April 12 gives total deposits as being nearly two thousand million pounds. Does your leader writer contend that this is all idle and available for loans for public works? Mr. Hore-Belisha, M.P., Financial Secretary to the Treasury, is reported in *The Times* for April 8 as saying, "There was no actually idle money outside the normal reserves kept for purposes of safety in good years as in bad." He was right; deposits are debt to banks. To say that "money need not be created; we have enough already," implies that power must be taken by Government to sequestrate private reserves. Does your leader writer propose this?

Banks have the power, by charter, to create and to destroy money at will, beginning with "the private company called the Bank of England."

All money other than coin (about ·7 of 1 per cent. of all money) exists as debt to banks, and could be destroyed by them at will by calling in loans and selling securities.

Bank loans are only figures, added to each side of the ledger, until passed on and accepted as money by industry. If accepted, it functions as real money, but is nevertheless debt to banks and liable at any moment to be recalled and destroyed.

The powers thus possessed by banks gives them hidden control over the whole of Industry. It is for the banks to put things right, and they cannot do that on their old system, which is mathematically certain to put them wrong (see *Social Credit* by C. H. Douglas), as we see at the present day.

Although I am not in the habit of advocating copyism of the U.S.A., especially at the present time, I would like to draw the attention of your leader writer to an article in *The Times* for April 10, "A Lead From America." In it Mr. Cordell Hull, the Secretary of State, lets the cat out of the bag. "He was ready to believe that all nations, the United States among them, had been 'starved down' sufficiently to incline them to listen to new proposals for application to a new world."

I think the chief of these proposals will be the establishment of that perfect credit rationing and utterly inhuman thing, an international bank!

ARTHUR WELFORD

A Reader's "Ideal" House

SIR,—I am venturing to send you the plans of my ideal house so that your readers may compare them with their own and possibly derive some benefit from them.

This house was designed and built primarily for our own use, and I would particularly call your attention to the ingenious and labour-saving arrangement of the kitchen and scullery, in the planning of which I was actively aided by Mrs. Blower. The extremely intelligent connection of the dining-room and kitchen by a staircase passing beneath the living-room, also giving access to the boiler house in the basement, commends itself to those who wish to place this "somewhere at the back."

There is, of course, the special provision of a rest room for our one servant, which I think I may be permitted to describe as a gracious affair.

Being a friendly family by nature, we decided to forgo the customary landing, and enter one bedroom from another.

I have omitted to give the elevations, but I need hardly add that these fell into place quite naturally as the work proceeded.

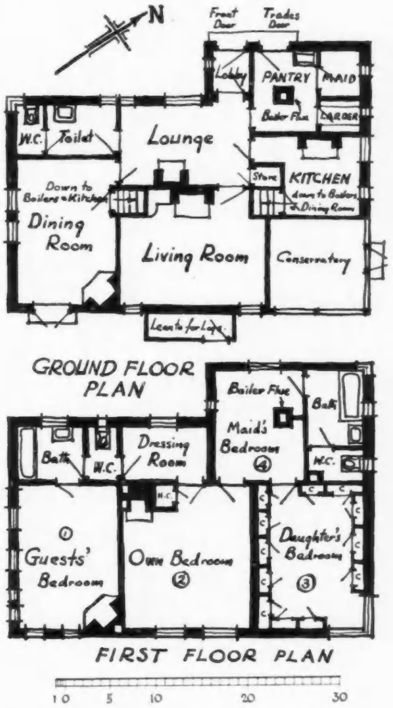
I might mention that at the conclusion of the job, owing to a slight oversight in preparing the plans, we were compelled to append a staircase outside the building, entering upon the first floor through the guest's bedroom. This freshness of treatment has provoked much appreciation from the various friends who have stayed with us since we moved in.

JOHN J. BLOWER

Dampness in Walls

SIR,—We think that your correspondent W. E. A. (issue for April 12) might like to know the results of actual experience in the remedy of dampness in the outer walls in very exposed positions.

We were asked to inspect and advise a treatment for the dampness that showed on the inner surfaces of the external walls to several churches in



Plans of an "ideal" house designed by John J. Blower and described by him in a letter on this page.

Ireland. These walls were over 2 feet in thickness, and were built of a dense impervious whinstone, which was known locally as "weeping stone." The stone had apparently acquired this name because, owing to its impervious nature, condensation readily occurred upon it.

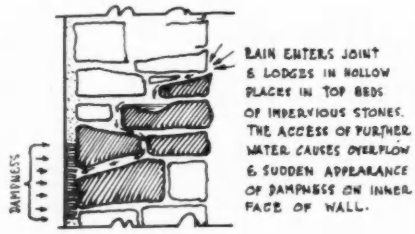
The dampness showed in roughly circular patches, scattered over the surface of the internal plastering, which was of ordinary porous lime and sand mortar, and it was difficult to connect these patches of dampness with any obvious defects in the pointing to the outer surfaces of the walls, which had been done with a very rich mixture of cement and sand, apparently applied in a rather soft condition, which had resulted in its cracking. The pointing was of the weather-joint type, but, in places, the bottom edges of the joints had been cut off above the top edges of the stones and many of these stones had their top beds sloping down from the face of the wall towards its heart.

This is, of course, contrary to the traditional practice of old masons, who were careful to bed the stones so that their top surfaces sloped outwards, thus shedding any water that found its way into the joints, instead of leading this water into the substance of the wall.

After a very patient investigation, the conclusion arrived at was that, owing to the almost complete imperviousness of the stones, any water that was driven through the outer joints was not absorbed, but travelled over the surfaces of the stones, and possibly lodged in depressions that existed in the upper beds of large stones, thus forming small interior reservoirs. The entry of a little more water would displace some of the water thus "cupped" and this displaced water would then escape over the edge of that particular stone to fall upon another, and so travel, in what might be termed a cascade, to the inner face of the wall.

Confirmation of this presumption was found in the fact that a recrudescence of the dampness upon the interior faces occurred almost immediately after the incidence of heavy rain which could not possibly have passed through the thickness of the walls by absorption in such a short interval.

The application of a two-coat rendering of waterproofed cement and sand to the internal surfaces of the walls proved entirely successful in these and many other cases. The face of the waterproofed cement rendering was skimmed with ordinary plasterer's lime putty and sand setting stuff, gauged with a little plaster of Paris, and left from the wood float, in order to prevent condensation.


RAIN ENTERS JOINT & LODGES IN HOLLOW PLACES IN TOP BEDS OF IMPERVIOUS STONES. THE ACCESS OF FURTHER WATER CAUSES OVERFLOW & SUDDEN APPEARANCE OF DAMPNESS ON INNER FACE OF WALL.
DAMPNESS

Section of rubble wall built with hard impervious stone, showing how penetration by rain may occur. See accompanying letter by L. E. Walker.

In the case of a church which is not regularly heated, it would be desirable to apply an additional undercoat of porous lime and sand, gauged with a little plaster of Paris, as the outer walls are liable to become thoroughly cold, and when the church is occupied by a congregation, the sudden raising of the temperature and moisture content of the atmosphere would establish conditions that are very likely to result in condensation.

If your correspondent or any other reader would like to have a copy of the specification which provided a remedy in these cases, we should be glad to supply this, together with further details of the various jobs where a similar specification has proved satisfactory.

Such a treatment, of course, is equally suitable for any external wall which is damp, either through the penetration of rain, or through the absence of an effective horizontal damp-proof course, and indeed, in such latter cases, it provides the only quick and permanent remedy, short of cutting out and inserting a new horizontal damp-proof course, the cost of which is often prohibitive and hardly ever immediate in its results.

L. E. WALKER

Technical Paper No. 7

SIR,—My attention has been called to the letter of Mr. P. J. Waldram, in your issue for April 5, relative to the measurement of daylight factors by measuring grilles, and to the second edition of Technical Paper No. 7 and its review in your columns.

We have recently received several extremely interesting letters in which the name and the address of the sender has not been included. We would like to remind correspondents that their letters may be published under pseudonyms, but that unless the name and address of the writer is made known to the Editor letters cannot be published.

The paper (B) of mine to which Mr. Waldram refers (see *Journal of Scientific Instruments*, March, 1932) was not an account of how Mr. Waldram's measuring devices "could be used in the photo-theodolite," but is an account of my own independent work on the geometrical problem of dividing the image screen of any camera device systematically into elements of area representing *constant* amounts of percentage daylight factor at the station-point of the instrument, as an advance on previous image screens whose elements represented known but not constant amounts of daylight factor, so that simple counting of the elements takes the place of comparison with tables of appropriate daylight factors or the transference to a calculating diagram.

I share your reviewer's surprise that Mr. Swarbrick's work finds no mention in Technical Paper No. 7, since he has been directly and indirectly responsible for developments labelled (1), (2) and (3) in the prefatory note of that publication, but this results from the method adopted of references to the text; the addition of a bibliography would have been a useful feature, removing that anomaly.

In any case, the daylight factor grilles used by Mr. Swarbrick, so named by him and constructed in his office from instructions supplied by me, owe their origin to my acquaintance with the work of his unique Daylight Factor Photo-Theodolite, as will be evident to anybody consulting (A), (B) or (C), and are not due in any way to Mr. Waldram.

A. C. STEVENSON

SIR,—Your reviewer has apparently failed to notice that both the first and second editions of Technical Paper No. 7 give the published information as to the application of photographic surveying to daylight calculation.

On p. 17 of the first edition and p. 21 of the second edition the reader is referred to *The Illuminating Engineer*, Vol. 16, May, 1923, of which 2,000 reprints have been sold, mainly by Messrs. Batsford.

On p. 102 of that reprint will be found a complete description of the use of co-ordinate angle grilles in connection with photography, as a labour-saving device in daylight calculations.

The 1923 paper quoted above also mentions on p. 107 that flat projections of co-ordinate grilles constitute measuring diagrams for illumination on vertical walls, but that a rectangular form given in the same paper was more convenient.

PERCY WALDRAM

[*This correspondence is now closed.*—ED., *A.J.*]

"*Economania*"

SIR,—The enterprise of British holiday resorts in their efforts to attract visitors during the season now begun is a graphic commentary upon the action of the Ministry of Health in banning certain public works on the vague ground that these are not "remunerative."

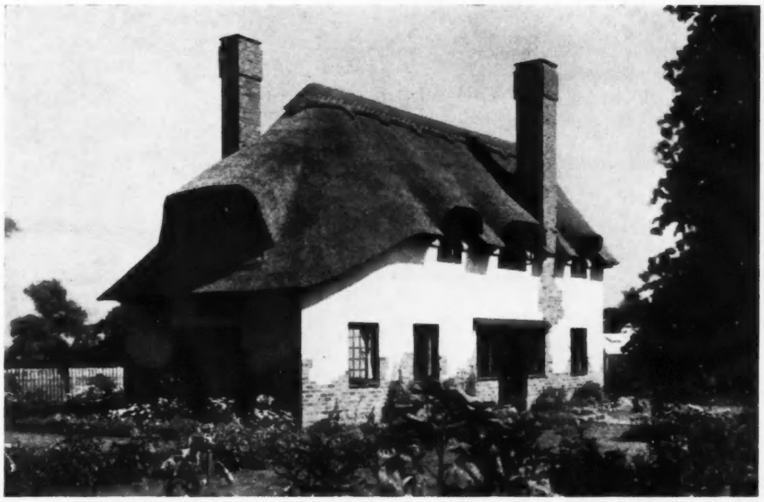
Among different plans undertaken around the British coast I note the following :—

	£	
Aberystwyth	21,000	New pavilion and palm court.
Blackpool ..	150,000	Indoor baths.
Bridlington	150,000	Concert hall, bathing pool, and gardens on site of old buildings.
Douglas (I.O.M.)	75,000	Promenade extension.
Felixstowe	30,000	Park, zoo, ballroom, etc.
Hastings ..	65,000	New bathing pool with terraces, a sun parlour, and cafés.
Scarborough	30,000	Extension of sea wall.
	7,000	Bathing pool.
Southend ..	56,500	Illuminations, new shelters, and park for 1,000 cars.
Southport	30,500	Bathing centre with beach bungalows.
Southsea ..	100,000	Winter gardens and a hall.

What I should like to know is whether even the most stubborn of advocates of economy would veto such work as "unremunerative." Before doing so, let him ask the people of Blackpool and Scarborough and Aberystwyth and Southsea what they think about it. He will find them unanimous (especially nowadays when faced with the competition of cruising holidays) in declaring for this form of spending money to attract the visitor. Indeed, I think I am correct in saying that Blackpool and Southsea at least have made themselves as holiday resorts in their differing respects by wise spending financed by their own rates. It is quite obvious that only by well-planned and far-sighted development can our own health and holiday resorts meet the competition of Continental holiday facilities.

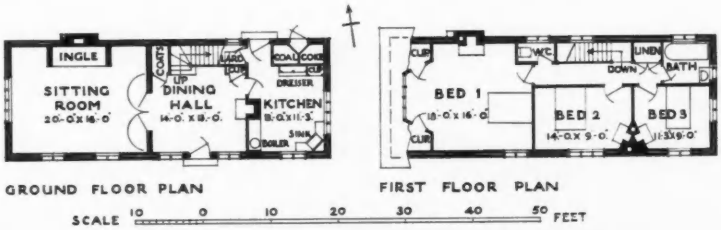
HOLFORD KNIGHT

A NEW THATCHED COTTAGE



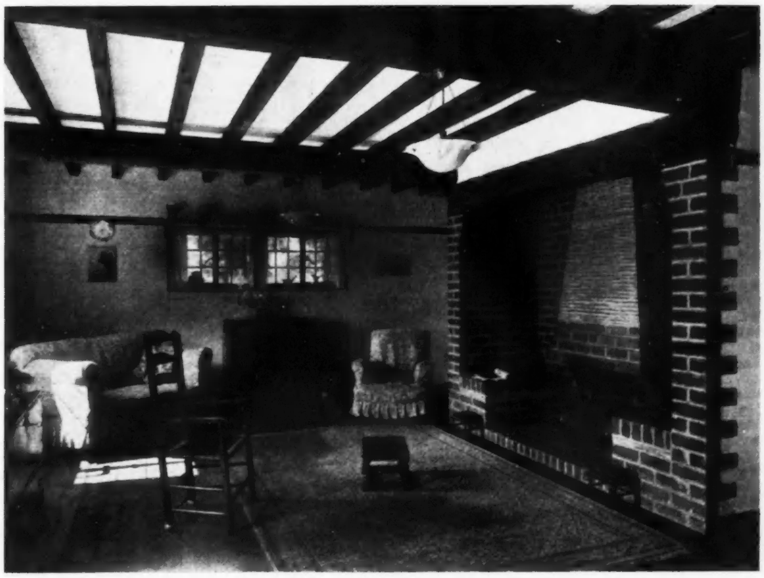
DESIGNED BY KENNETH DALGLEISH

In planning this cottage for a Warwickshire site an endeavour was made to give maximum floor-space with minimum passage-room. The front door opens into a dining or lounge hall, separated from the sitting room (shown below), by large double doors, which can be opened wide. The external walls are eleven-inch cavity brick above an uneven plinth of warm red facing bricks, similar to those used for the chimneys; they are covered with a cream slurry of cement and sand. The casements are steel with lead lights, and the roof is covered with Norfolk reed thatch. An article on thatching appears on page 563. The plans of this house, as all plans published in the JOURNAL, *are the copyright of the architect, and may not be "borrowed" by speculative builders.*

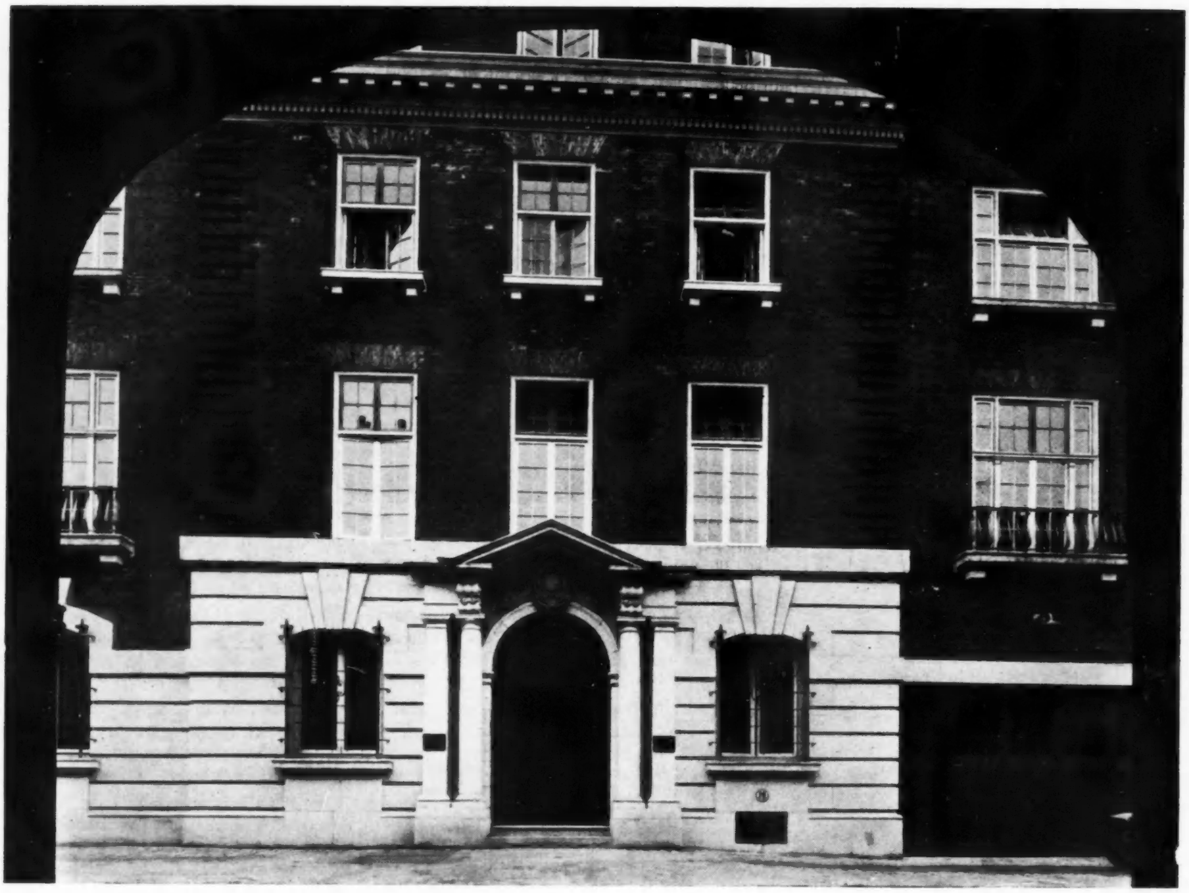


GROUND FLOOR PLAN

FIRST FLOOR PLAN



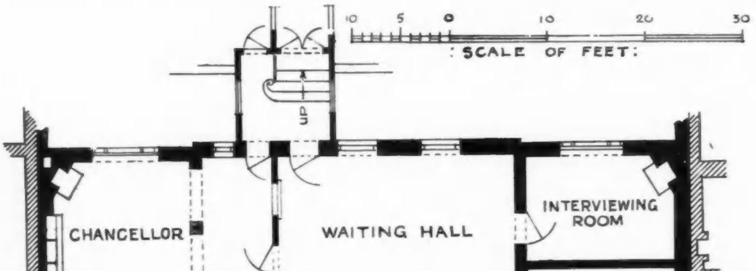
CHANCERY AT THE ITALIAN EMBASSY



This building is situated in a small close, leading off Three Kings Yard, London, and was erected on the site of stable buildings belonging to and at the rear of No. 4, Grosvenor Square, the new home of the Italian Embassy. It is the Chancery to the Embassy, accommodating the Councillor, Secretaries, the various Attachés, the Chancellor and the rest of the Official Staff of the Embassy, and is connected to the mansion (the home of the Ambassador) by means of a communicating corridor at the ground floor level.

Extensive alterations have been made to the interior of the mansion, including reorganizing and decorating rooms on the ground and first floors, to make them suitable for the holding of State functions.

The work to the Chancery and mansion, both internally and externally, has been designed to give an Italian character to the buildings and, by special request, Italian workmanship has been employed wherever possible. The elevations of the Chancery have been carried out in reconstructed Portland stone and multi-coloured bricks, with bright red arches and quoins. The grilles to the windows, and the balustrades, are in wrought iron; the whole of the building is roofed with an asphalt flat.


10 5 0 10 20 30
SCALE OF FEET
UP
CHANCELLOR
WAITING HALL
INTERVIEWING ROOM
DOWN
AREA
LAVY
W.C
W.C
LIFT
UP
UP
DOWN
LAVY
GARAGE
RECORDS
PORTER & TELEPHONE
ENTRANCE
NIGHT PORTER
THREE KINGS YARD

DESIGNED BY A. BURNETT BROWN AND ERNEST R. BARROW

COMPETITIONS

PAST AND PRESENT

Below are printed summaries of the two papers dealing with the above subject, read on Monday before the R.I.B.A. by H. V. Lanchester, F.R.I.B.A. and Percy E. Thomas, O.B.E., F.R.I.B.A.

1. The Past

By H. V. LANCHESTER

IN 1839 it was thought admissible for the promoters of competitions to decide on the merits of the designs submitted, and though even then technical advice was sometimes secured, it took another 44 years before professional adjudications became a regulation of our Institute. During that period various experiments were made in the direction of associating professional advisers with the promoters or their nominees, but rarely did these prove satisfactory.

As I have mentioned, it was only in April, 1883, that the R.I.B.A. made it a definite regulation that the promoters of a competition should as their first step appoint one or more professional assessors, further strengthening this procedure by deciding in November, 1910, that members should only compete in cases where the regulations, including professional adjudication, were complied with.

Experience tells us the advance in practice does not keep pace with our standard of knowledge as to the ideal conduct of a competition, owing to the promoters not understanding the purpose of our rules, and therefore not cooperating with the assessor in his efforts to secure the most equitable result.

To be quite fair to promoters, I must say that when recommendations are put lucidly to them from a clear and logical standpoint, it is my belief that in most cases they accept advice so supported. The responsibility for giving such advice in an appropriate form rests with the architect, and important competitions have sometimes fallen short of the standard they might have reached, more by our own default than by reason of any intentional malpractice on the part of the promoters.

THE NEED IN COMPETITIVE PRACTICE

Continuity from start to finish, such as we find in non-competitive work, is the great need in competition practice. At present there is a tendency to cut it up into three distinct stages, greatly to the detriment of the result: the first stage, before the appointment of the assessor or jury, the second during this appointment, and the third after the selection of the design.

To put competitive practice on a sound basis, the breaks between these stages should be bridged over, and I have ventured to suggest a procedure by means of which this may be achieved. I do not say that there may not be better ways: the one put forward is merely a suggestion as to the type of procedure that might be appropriate.

Let us assume that some public body is promoting a competition and has appointed a building committee. After some preliminary discussion they would ask for the appointment of an architectural adviser and depute two well-qualified members to confer with him, possibly the chairman and city engineer, or chairman and medical officer, according to the class of building. These three would draw up the programme. Before issuing this, two other independent architects would be added to form a jury of five, and on the programme having been agreed by them, it would be issued to competitors. The usual stages of questions, replies, and receipt of designs having been passed through under the supervision of this jury, its members would jointly make their award, dealing very fully with all the considerations necessary to inform the successful competitor as to any fresh aspect that has occurred to them during the adjudication. Their award might be in two parts, one for publication, and the other more in the nature of a confidential communication to the selected architect, in order to make him conversant with problems and difficulties affecting the further development of his design.

THE ARCHITECT AS ASSESSOR

I have often heard it said that a good architect is necessarily a good assessor, but to my mind this is not the case. It may be admitted that the same intuition that enables an architect devoid of the analytical faculty to produce a brilliant design may empower him to select the ablest one submitted in a competition. That is not the weak spot in his equipment as an assessor. This will be discovered in the earlier stages, such as discussions with the promoters and the preparation of the programme. To place the issues properly before a clear-headed business or professional man, whose experience is outside the technique of art, demands a faculty of logical exposition and an experience of the difficulties involved which are not essential concomitants of imaginative force.

I introduced one of the architects a stage earlier than his two professional brethren, in order to take advantage of employing one, specially qualified by his attitude of mind and his experience, to thrash out with laymen those points of detail and method that are so often misunderstood. He is thus " the forerunner " who paves the way for his association on the jury with one or more whose artistic qualifications may perhaps rank higher, but whose limitations in other respects might preclude their being entrusted with the conduct of a competition.

As a general rule, experience as a competitor is almost essential as a qualification for the single assessor, but in the case of a jury this experience may be dispensed with in some of its members if it is in other respects advantageous to have a wider field for selection.

To use César Daly's phrase, " The direction of architectural ideas " is subject to gradual change, and the pioneers of one generation become the exponents of the academic school in the next. In order, therefore, that vital fluctuations in our art shall receive due appreciation it is desirable that the adjudication of competitive designs shall not be entirely in the hands of the older and more experienced men, whose sympathies are liable to incline towards the earlier as against the newer methods. At the same time experience and mature judgment are invaluable, so that one of the chief recommendations of the jury system is the facility it affords for securing both the experience of the older and the fresher point of view of the younger men.

Finally, we come to the competitor, who, when he has decided to compete, sits down to master the conditions and programme. If the latter is well drawn up it should at once give the competitor a good general impression as to what the promoters have in their mind; if it is not, the competitor, by much reading and re-reading, will gradually obtain, from accidents of phrasing here and there, some idea of the points to which importance is attached. With a good programme no further questions should be needed, but with a bad one the competitor can help to patch it up by means of questions on salient points.

THE BEST PROGRAMME

From the competitor's point of view the best programme is one that states clearly what is wanted but makes no attempt to indicate how these wants are to be provided for. As a rule, the allocation of the relative positions for the accommodation asked for is a mistake, tending to hamper freedom in the conception of the design. If special requirements have to be met, it is far better that these should be thoroughly explained than an attempt made to anticipate the competitor's work by specifying some definite arrangement.

Holding the views I do with regard to the basis on which a competition should be decided, I must point out how rarely is the competition in two stages advantageous. Almost its sole use is in placing before promoters a series of definite solutions from which they can realize how they have failed to grasp and express all that they had in mind. They are then able to supplement the programme and secure a design more closely approximating to their requirements. If this is clearly recognized it disposes of any argument for or against double competitions. The promoters are obviously entitled to claim that the problem is so complex that only by means of a double competition can the best result be secured, but solely on the ground that only after seeing sketch solutions can all the difficulties be realized. After all, one's private client has often to see two or three sets of sketches before he can fully explain himself. The main difference is that the assessor should be able to clear up difficulties of this kind, and where he can the double competition becomes unnecessary.

2. The Present

By PERCY E. THOMAS

LIMITED competitions are usually restricted to architects who receive direct invitation from the promoters, or who are selected by means of the submission of names and records of previous work. There have been a good number of limited competitions in recent years, and there are many people, architects and laymen, who strongly advocate the principle. I believe the reason in many cases is that it gives them a sort of " Safety-First " feeling. They feel satisfied that at least they know the worst that can happen.

Another argument used in favour of the limited competition is that for special buildings the competition should be limited to architects who specialize in that particular class of work. I have already stated what I consider are the objections to this argument, and they apply equally in this case.*

It should also be borne in mind that the planning and equipment of special buildings are constantly changing with the progress of science and invention.

Personally, I feel that if the competition system itself is right, then the open competition is the simplest and fairest to the profession, and as it is undoubtedly the one which has produced our best men, it must also be the best from the promoters' point of view.

THE OPEN COMPETITION

The open competition, held in two stages, can only be justified in very exceptional circumstances. It has, I know, many supporters who would have practically all major competitions held in this way, but it is significant that few experienced competitors believe in it. They know that as far as the labour involved is concerned, the same amount of research work and thought must be put into the problem in the first stage. The elaboration of drawings, and even the working out of parts of the design, are minor matters which take comparatively little time, and which, in my opinion, do not justify the delay and additional expense involved by a further stage. It can be safely stated that practically every competition of this character is won in the initial stage, and that the other competitors in the second stage are merely elaborating designs which have already lost, for it would take a bold man to depart fundamentally from a scheme which has already secured him a place in the second stage.

To overcome this difficulty one of the technical journals recently made the suggestion that before the second stage, the original sketches should be exhibited for all competitors to see, but that the sketches should be retained by the promoters for comparison with the final drawings, and would be binding upon competitors just as original esquisses are binding in student competitions, the idea being that any competitor selected for the second stage could retire if an inspection of the designs convinced him that it was useless for him to proceed further. But architects are all optimists, and as the suggestion was also made that the competitors in the second stage should be paid a fee, I am afraid most of them would be tempted to take an optimistic view of their chances.

THE ASSESSOR

Under this heading I propose also to deal with the question of juries.

The question of the assessor is probably the most controversial and difficult in the competition system. Many hold the view that the jury system ought to be generally adopted, their argument being that errors of judgment would be fewer, that there would be less chance of the result resting upon the idiosyncrasy of the assessors, and that there would be no playing up to the assessor's known opinion or prejudice, but the principal argument advanced in recent years is that with the jury system the promoters could, if they desired (and they would desire), have representation on the jury.

This suggestion that the promoters should have a voice in the award has been advocated recently by quite a number of architects who seem to forget the continuous scandals throughout the nineteenth century and the beginning of this century which made it necessary to insist upon the absolute acceptance of the assessor's award.

I do not like the argument that you should include a representative of the promoters on the jury to make them feel that they are having some share in making the award. It does not seem quite honest, and if it is only their views that are wanted, surely these are obtainable before the designs are received, and the question as to how these views have been met in the designs can only be decided by men whose training and experience renders them competent to judge.

Take a recent case, familiar to all of you, where the assessor, quite wrongly in my opinion, agreed to consult the promoters before making his award. What happened? The promoters insisted upon the design which they favoured being selected. The designs have all been published, and I leave you to judge what help these promoters could have given the assessor in making his award.

To the jury system, i.e., a jury of architects, it is difficult to make objection, although it is extraordinary how many architects, experienced in competitions, will prefer to leave the decision to one good man.

There is the question of expense to consider for all except very large or important competitions, for even if the assessors agree to share or reduce the recognized fee, the expenses of a jury, if the assessing has to be done at any distance, and they all conscientiously do their duty, must be a considerable item.

I believe that with most juries one of its members does the bulk of the work, especially in the preliminary stages, and that the other members may not, in consequence, have that thorough grasp of the difficulties of the problem which renders them competent to have a voice in the award.

I consider that for most competitions, the single assessor, providing always he is competent, is the most satisfactory method.

The Competitions Committee at the present time are giving careful consideration to this matter of the promoters having a voice in the award, but as their views have not yet been laid before the Council, I cannot say anything further about that this evening.

THE APPOINTMENT OF THE ASSESSOR

As most of you are aware, the appointment of the assessor is entirely in the hands of the President, except in cases where the promoters have appointed the assessor before approaching the Institute.

It can be realized that this does not always work out satisfactorily, and many suggestions have been put forward for an alternative method. The two most frequently advocated are (1) that the competitors themselves should select the assessor or jury, and (2) that the selection should be left to a body such as the Competitions Committee.

In support of the first, it is claimed that if competitors are to give of their best, they must have confidence in the men who are going to assess their work, and that this would best be achieved by the competitors themselves making the selection from a panel nominated by the President or the Competitions Committee.

One objection to this proposal is that the competitors as a body do not exist until they have studied the conditions and decided to compete, so the whole of the preliminary work of the consultation with promoters and drafting of conditions and requirements would have to be done before the assessor was appointed and might convey ideas totally at variance with his own.

With regard to the appointment by the Competitions Committee, the objection to this is that the Committee is bound to include many of the men most suited to act as assessors. Are they to appoint themselves in turn, or are we to lose their services in this direction altogether?

I confess that at the moment I see no better way than the present, and although mistakes may occur, we have no guarantee that they would not also occur under a different system of selection.

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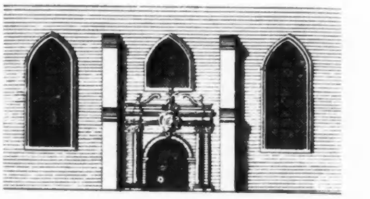
* Mr. Thomas, in the first part of his paper, said: "The architectural specialist, unlike the specialist in other professions, obtains his position largely as the result of opportunity or accident, rather than deliberate intention. The main principles of planning and design are common to all classes of building, and while greater experience may bring perfection in detailed planning and equipment, it is more than counterbalanced by the freshness of mind and variety of solutions which are obtained by means of a competition."



Empire Timber Resources

The timber resources of the British Empire were reviewed by Major J. R. Cosgrove, of the Forest Products Research Laboratory, Princes Risborough, in a recent lecture to the Planters' Group of the Royal Empire Society.

At present about 90 per cent. of the timber imported into the United Kingdom comes from foreign countries. During recent years, however, there has been an increasing demand for Empire produce, largely as the result of the work being done by Princes Risborough, the Imperial Institute and other bodies which have been aided financially and generally by the Empire Marketing Board. With the aid of lantern slides and the Board's films, Major Cosgrove illustrated how some of the chief timbers are obtained and the uses to which they are put.

British Foundation in Paris

Work has now been started at the University City of Paris on the much-needed British Foundation. By next year a hostel of 150 rooms will be ready for British students wishing to study there.

New Orphanage at Wavertree

Work is now well advanced on the foundations of the new Liverpool Orphanage at Wavertree, which it is hoped to finish in fifteen months, at an approximate cost of £50,000. The architects are Messrs. Barnish, Silcock and Thearle, whose design was awarded first place in the competition limited to Liverpool architects.

A Recent Will

Mr. T. Haines, architect, of Kew, left £12,163 (net personalty £11,121).

REED THATCHING *IN* NORFOLK

[*BY HUMPHREY C. BOARDMAN*]

NORFOLK reed thatching suffers more wrongs through mistaken identity than from any other cause, and it is more often unfairly condemned for false reasons than praised for its own singular merits. Many would include the commonest straws, such as wheat, barley, oats, etc., in the category of reed thatching, yet barley straw is too short, oat straw is cut up for feeding cattle and horses, leaving wheat straw as the most convenient and cheap covering for all types of farm stacks. Since the introduction of thrashing machines straw suffers ruination as a thatching material of any merit because it invariably leaves the machine rolled and bent about to such an extent that it is quite impossible for any thatcher to make it into a neat, tight or particularly lasting job.

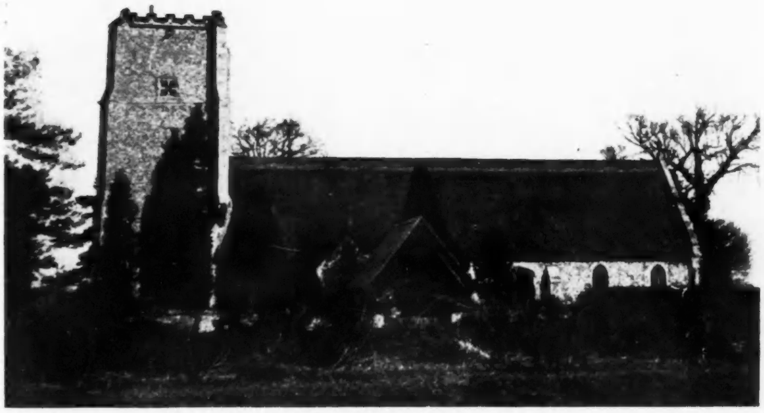
Most reed-beds are cut every alternate year, and from that fact a fair comparison can be drawn between its straw rival and its obvious advantage as a weather-resisting material. What crop of arable corn could survive two years' exposure to the climate of East Anglia? Falls of snow would break it down, while the variations of wind, rain, frost, sunshine and the inevitable "unsettled" weather would soon turn it into pulp. Reed-beds suffer in time of drought, since, no doubt, the submerged roots must gain a certain amount of their nourishment from the rain and dews passing over the leaves and down the stems.

Only two types of reed are used by Norfolk thatchers, the most important being *Arundo Phragmites*—true or Best Reed. One occasionally sees various kinds of farm shelters and boathouses entirely covered with *Typha Angustifolia*—the Lesser Reedmace—but it is considered cheap and untidy and not up to the standard of *Arundo Phragmites*. Where one has a combination of the two types of reed it is known as Mixed, and in many circumstances this is to be preferred to Best Reed by itself, but it is far from popular among architects, probably more on account of its unfortunate title of Mixed than from a true consideration of its merits. Reed-bed owners who obtain a harvest of Mixed stuff off their marshes are rightly indignant with the profession when they find that they can only obtain a price for their crops of £3 per hundred less than those with the Best Reed beds, and it has been said with some truth that, in this case at least, architects are biased when they ought not to be.

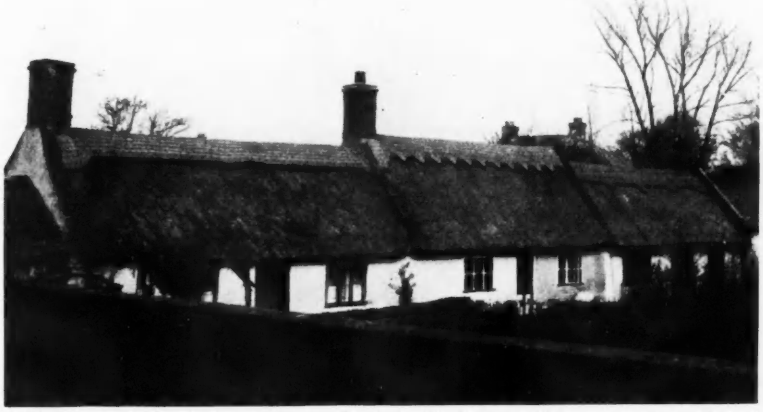
The addition of about 10 per cent. to 20 per cent. of Reedmace among the Best Reed gives a slightly more mottled appearance to the finished roof than the use of Best Reed alone. A matter of opinion and æsthetics sometimes arises here as to what advice one would give one's clients, but for strength and durability the addition is an asset. Reed is brittle, while Reedmace is softer and, therefore, more pliable. The latter will resist the pecks of birds and puffs of wind because it can be bent without breaking. It weathers even better than reed, and if used as a type of reinforcement against such attacks its use is to be recommended, but too much Reedmace prevents the thatcher from tapping the thatch tight, in the same way that straw fails to make a good job.

Both types of reed mentioned are perennials growing freely in the Broads districts of Norfolk and Suffolk. The reed beds vary from entire crops of one to entire crops of the other. The best crops are obtained from marshes covered with about 6 ins. of water, the reed growing to a height of about 5 ft. to 6 ft. In the southern districts of the Broads the reed tends to be taller, often being 7 or 8 ft. long, but reed of this length should be laid on the roof to a thickness of about 16 ins. or more, while the shorter reed gives satisfactory results if only 12 ins. thick. For valleys, verges, etc., the longer reed is an asset, but the majority of the work should be carried out with the shorter stuff.

Reed harvests commence in December, after frosts and winds have cleared the stems of leaf, leaving the reeds bare except for the feathery flowers on the top. It is



The thatched church at Salhouse, Norfolk. The thatch on the ridge and south side of the roof is completely covered with wire netting as a protection against wind.



This group of thatched cottages at Catfield, Norfolk, exhibits several examples of patterns of ridging—the crowning features of the thatcher's art. The article describes the process by which they are formed.

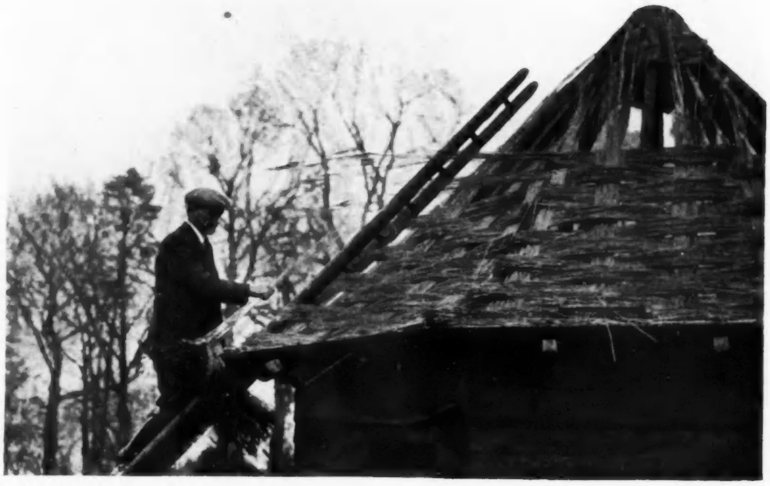
then ready for thatching, or can be stacked until required, the harvest continuing until early spring, when the young shoots of the new crop, locally known as colts, begin to appear. April 6 is the recognized day to stop reed-cutting, and it is surprising how very near that date the scything ceases year by year throughout the Broads. If the reed were to be cut when in full flower, during the months of July or August, the plant would probably be killed, and, to save undue strain on the roots, two years' growth before cutting is universally considered the most satisfactory.

Some thatchers prefer to work the single wale (one year's crop), and it might make a slightly better job than the double wale (two years' crop), but they wisely bear in mind that it is in their own interests to preserve the reed-beds or, as far as possible, to postpone the cycle of growth which inevitably seems to turn a reed-bed into a marsh of sedge. Where there are signs of a sedge-marsh turning into a reed-bed care and knowledge can promote the alteration. Sedge (*Cladium Mariscus*) is used for all the best thatch-ridging, and it is so common that there need, as yet, be no anxiety that it might be difficult to obtain.

For a thatched roof the timbers can be of a lighter construction than is necessary for pantiling, but they must be able to bear the weight of the workmen upon them and heavy loads of snow. If the spars or rafters are not battened or boarded in any way the thatcher will have to flake the roof to prevent the main bulk of the reed, which is laid parallel to the rafters, from falling down between them. Before squared timbers could be obtained easily and cheaply, flaking was the only satisfactory method levelling up the irregularities that the various shaped spars of an assortment of trees gave the roof, but nowadays ordinary tile battens, used as splining, can be substituted for the flaking if desired.

To commence flaking, wisps of reeds, which the thatcher can comfortably hold in his hand, are each tied up with a piece of string and are placed parallel and midway between the rafters. While held in this position, thin layers of loose reed, which work from 4 ins. to 6 ins. wide, are then interlaced at right angles to the wisps, forming a woven bed for the reed until a

STAGES IN THATCHING



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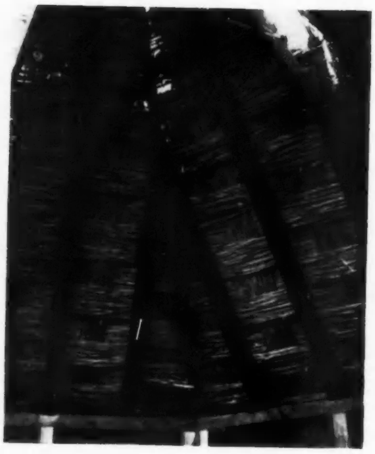

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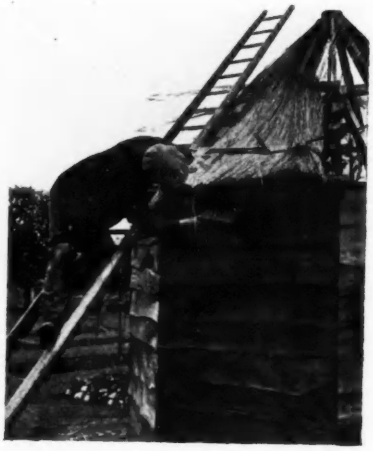

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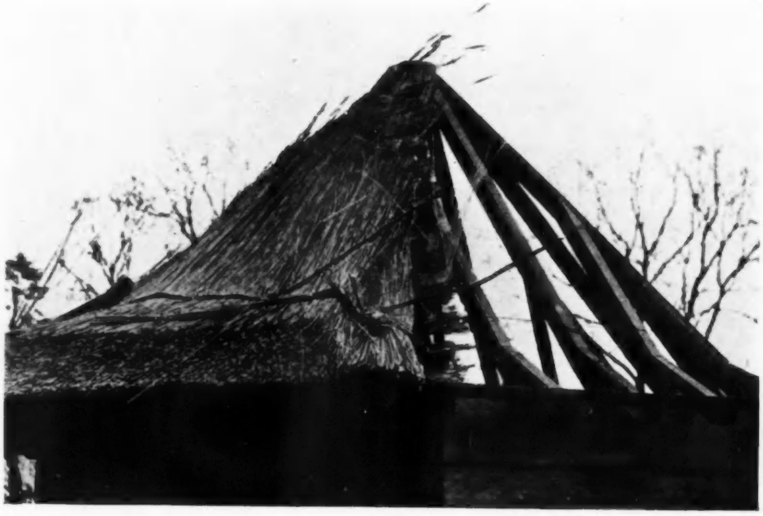

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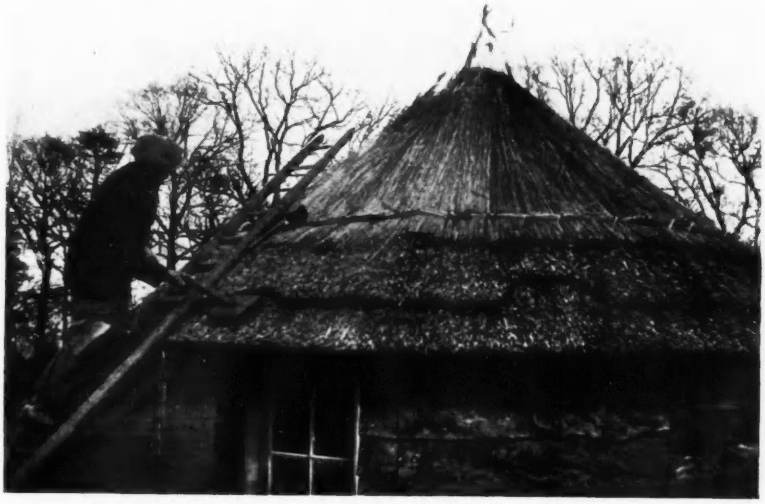
1. *Flaking the roof with wisps of reeds tied up with string.*

2. *The roof from within, showing the exposed flaking.*

3. *Tapping up the eaves with the nail-headed leggett, which is usually made of ash or elm. One wooden sway is already fixed in position to secure the first of the thatching; the necessity for flaking is seen.*

4. *The second wooden sway fixed in position. To assist him in forming the exposed roof surface, the thatcher uses a temporary sway of reeds; this is removed when the wooden sway is secured.*

A ROOF WITH REEDS



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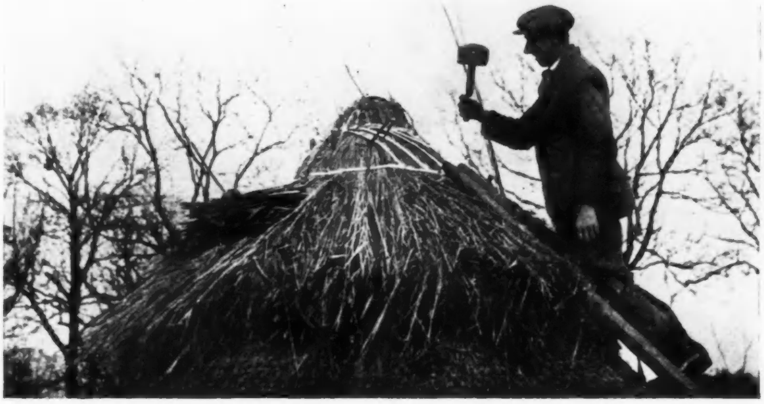

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sufficient area of the roof is covered ready to commence the thatching proper. The flaking is often so thin that one can see daylight through it until the main thickness of reed covers it and makes it perfectly weatherproof. Work commences at the corners of eaves and verges to enable the thatcher to place the reed at a convenient angle, so as to form all exposed surfaces with stub ends ; and the finishing of a thatched roof, irrespective of ridging, should never be arranged to take place at overhanging gables or eaves, etc.

Sufficient reed is placed upon the flaking to form the required thickness of 12 ins. for all normal work, with the flower of the reed near the flaking and the stub ends forming the exposed roof-surface. It will be noticed that the angle of the reed is less than the pitch of the roof. With the required amount of reed in position along a part of the eaves, it is securely held to the rafters by placing sways horizontally along the roof and tying them to the rafters to hold the reed tightly between sways and rafters. The first sway is placed about 15 ins. from the eaves, the second 6 ins. higher up and then at 24 ins. intervals. Nut, common sallow or, best of all, black sallow, roughly trimmed to about ¾ in. diameter and averaging 8 ft. and 9 ft. in length, make the best sways. These are tough yet pliable, and can be bent to take up any desired curves that one may require.

On a thatched roof of varying pitches, valleys and hips are swept round almost as easily as if they were flat, and the resulting avoidance of unsightly gutters and ridging is an asset and a saving worthy of consideration. In many old cottages brambles were used to tie down the sways and, with them, the thatch to the rafters, but nowadays three-thread jute spun-yarn, or iron hooks of selected length, nailed to the rafters, are generally used. The tarred spun-yarn is tied to a sway and is threaded through the thatch and flaking. Inside the roof it is drawn round the rafters and threaded back to the thatcher, who pulls it tight and ties it again round the sway so that the two knots are made the width of the rafter apart. A boy is usually employed to thread the needle within the roof and to keep the thatcher supplied with reed while thatching.

Sways should either be tied or nailed to all

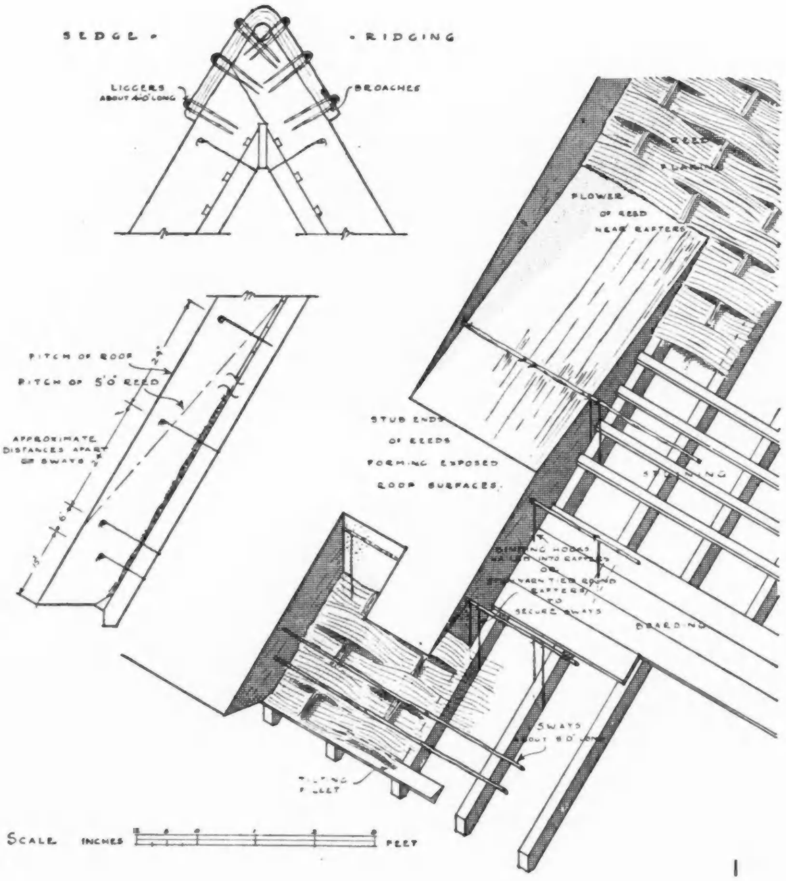
5. *Further up the roof. Tapping up a pattern in the reed, still utilizing a temporary sway of reed, pegged loosely on to the thatching reed.*

6. *Ridging. Hammering into the thatch one of the broaches used to secure the liggers. Note, on the left, the broaches ready for twisting.*

7. *Ridging. The liggers already follow the desired pattern, and the thatcher is trimming away the ends of the reeds.*

8. *Ridging. Cutting out the ridge pattern. The photograph of a group of cottages, reproduced on page 563, shows some of the traditional ridging patterns.*

REED THATCHING IN


SEDGE - RIDGING
LIGGERS ABOUT 4'0" LONG
BROACHES
REED
FLAKING
FLOWER OF REED NEAR RAFTERS
PITCH OF ROOF
PITCH OF 5'0" REED
2'0"
APPROXIMATE DISTANCES APART OF SWAYS
6"
3'
STUB ENDS OF REEDS FORMING EXPOSED ROOF SURFACES.
BINDING HOOKS NAILED INTO RAFTERS OR TARRED YARN TIED ROUND RAFTERS TO SECURE SWAYS
BOARDING
SWAYS ABOUT 8'0" LONG
TILTING FILLET
SCALE INCHES FEET

1

rafters, which are fixed at approximately 15 ins. centres, though much laxity in placing them further apart or nearer each other gives the same results in the exterior appearance of the roof. If the roof has been boarded in any way, threading round the rafters is quite impracticable, so binding hooks must be used instead. These are simply bent-headed pieces of iron which fasten over the sway and can be nailed to the rafters wherever required. If one wishes to thatch a boarded, corrugated iron, asbestos sheeting or any bituminous type of roof, it is a simple matter to find the rafters and nail the hooks through the original roofing material into them.

To continue thatching, sufficient reed is placed to cover each sway as it is fixed and to provide convenient layers between sways for secure fixing, the amount rather depending on the quality and length of the reed and the conscientiousness of the thatcher. Sways should not be more than 2 ft. apart for the best type of work. In this way thatching takes its form, the stubs being tapped up into position with nailed elm leggetts until the ridge is reached.

The finishing of the reed can be completed in various ways. Some thatchers cut off the reeds almost level with the ridge on the north or east sides of the roof, the reeds on the south or west being carried up and bent down to butt against the reeds on the north or east to a height of about 10 ins. above the wood ridge. The principle of the idea is to give added protection from the prevailing south-west winds and rain. Other thatchers run the thatch up on one side so that they can cut it off in a line with the pitch of the rafters on the opposite side. The thatching is then completed on the remaining side, giving a greater height above the wood ridge. At the apex is worked a bundle of reeds about 10 ins. in circumference, parallel to the ridge and for its entire length.

As already mentioned, sedge forms the ridge covering. This grass or rush grows in close proximity to the red-beds and, like reed, the best crops grow on the marshes which are saturated with water. The harvest can take place at any season of the year, and the largest quantity is bought by farmers for the feeding of live stock, only a small percentage being utilized for thatch-ridging. Sedge is sold tied up in bundles, 200 bundles equalling a truck, and five bundles would be required for 1 ft. run of ridging. The thatcher prices the work at so much per foot run, according to the elaboration of the design required.

Before being used on a roof, sedge should be thoroughly soaked either by complete immersion or by pouring buckets of water upon the lump. This is done to assist the thatcher in laying the sedge tight. It must be drawn from the lump by hand and placed over the ridge hanging over the reed on each side of the ridge and not along it. The sedge is securely held in position by means of liggers laid to any desired pattern upon the sedge, and they are themselves secured by broaches pegged into the reed thatch.

Liggers, which are semi-circular, and broaches, which are triangular, are both made from split nut or sallow and are cut into the required lengths. Liggers are about 5 ft. long and the small broaches, which are twisted by hand through 180°, forming springy pegs, are 2 ft. long, passing over the liggers and into the thatch about 12 ins. to secure the ridging. The sedge ridge varies in thickness, but should not be less than 3 ins. When the sedge is secured into position the thatcher trims it up and cuts out the various patterns required. Some of the liggers, all of which remain exposed to view, should have previously been fixed following near the edge of the proposed design. For added security and to prevent vermin and tempests from playing havoc with the ridge, the first part likely to wear away, many are now covered with ¾ in. mesh galvanized wire netting, which becomes hardly noticeable and quite inoffensive after weathering for a few months. The netting should be secured by the use of galvanized wire pins thrust into the thatch 9 ins. to 10 ins.

Wheat straw has been used in a few instances in the place of sedge for the ridging, but it is despised in Norfolk because it fails in every respect to compete with the latter. It is too light in colour to harmonize with the reed, nearly three times as expensive, and very much more inflammable.

All reed is cut and sold by the hundred fathoms, a method of calculation common throughout the Broads. Local districts vary, some providing five and some six shoves or bundles to the fathom, but in either case one fathom must measure 6 ft. in circumference at the binding of the shoves. One hundred and twenty fathoms make one hundred, i.e., Hd., or Long Hundred, while 100 fathoms would constitute a Short Hundred.

The thatcher calculates the number of Hd. required for a job by measuring all exposed surfaces of stub ends of reed, including the main roof surfaces, all eaves, verges, etc. One square (100 square feet) of 12 ins. thatch would require about 17 fathoms, while 15 ins. work would need 22 fathoms, two fathoms of which are in either case utilized for the flaking. Thatchers naturally prefer to flake their roofs, but this process is, of course, dispensed with if the roof is splined or boarded by the contractor. The interior of the roof is made very much more attractive by leaving the interlacing pattern of the flaking exposed to view, but, if necessary, the surface between the rafters can be lime-mortared, with the flaking acting as an excellent key. For domestic work this is advisable, but for buildings of the summerhouse type, boathouses, barns, etc., it is quite unnecessary.

A recent price quoted for Norfolk reed thatching was £4 per square, to include

THEORY AND PRACTICE

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best reed, flaking and fancy ridging. This surely compares most favourably with the prices of various other types of roofing, and the benefits to be derived from living or working under thatch and the happier harmony it provides with rural England should secure for it all the encouragement it can get.

Hand-made plain tiles, laid to 3½ ins. gauge, at 800 to a square, would cost about £3 per square; add 10 per cent. profit—6s., fixing 17s. 6d. and some type of bedding for good work to give it a chance to compete with thatch—felt 10s. per square—total £4 13s. 6d. Reed thatch, well laid, will last for some 80 years or more without repair, while the ridge can be expected to survive for 15 years. In the same way as a tile which has fallen off a roof can be replaced, so can thatching be repaired where it shows signs of wear. If a roof does get beyond local repair it is a comparatively simple matter to half-coat the entire surface, using the existing thatch undisturbed as the foundation for the new work. The new work of half-coating works about 9 ins. thick and binding hooks would be used to secure the sways if the rafters have been boarded or a ceiling must not be disturbed.

Some of the best-looking thatch on old cottages has been half-coated, and it looks both neat and new to the expert, yet old and beautiful to the layman from the day it is done. It is surprising that reed thatchers have such little repair work to do, and it is conclusive evidence that either roofs are being neglected or they do not need attention. If it is the latter it is a pity that more new work is not being carried out. Modern country houses are often built in most prominent positions, and council houses are some of our worst offenders, their red, green or black tiled roofs spoiling many picturesque views. As the roof is so often the most conspicuous part of any house it deserves the sympathetic treatment that only thatch can give.

Norfolk thatchers often receive requests from the more distant counties and abroad to this effect: "We propose to thatch a roof—please send us some reed and tell us how to do it." To the expert there is very much more in it than meets the eye. One looks at a thatch roof and one is struck by its simplicity, but, as in anything else done really well, it needs an expert to do it.

1. *A diagrammatic scale drawing explanatory of the materials and methods shown in use, stage by stage, in the series of illustrations on pages 564-5.*
2. *Two groups of thatched cottages at Horning, Norfolk.*
3. *A group of cottages at Catfield, Norfolk, thatched with reed and straw; the straw is secured by exposed sways.*
4. *A modern thatched house, at Coltishall, Norfolk, from the designs of Edward Boardman and Son.*

WHAT IS TO BE DONE ABOUT

THIS?

[The article printed below, by the architect to the Wakefield Corporation, West Riding of Yorkshire, represents an interesting response to our invitation to readers to express their independent views on the pertinent question that forms the running title of the present series. We have, of course, mapped out our programme of future articles, but think it advantageous to break its sequence in favour of important contributions such as this.

The following have already appeared :—(March 29) 1. The Speculative Builder, by Penates; (April 5) 2. The Speculative Architect, by Edwin Gunn; (April 12) 3. Building Without Guidance, by Stanley C. Ramsey; (April 19) 4. What the Public Want, by Edwin Gunn.—ED., *A.J.*]

5. The Housing Problem

[*By PERCY MORRIS*]

IN your issue for March 29 appeared an article under the heading of "The Speculative Builder," wherein it was stated that "there is an especial need for the three-bedroom non-parlour type, of 760 square feet floor area, that sells for £520 or less, and lets at something under 8s. per week."

If there existed a demand and this price of £520 was forthcoming, or even a hundred pounds less, I think every builder in the country would be busy selling houses and buying motor cars. A house of this size could be built in a satisfactory manner, and sold at a good profit, for £320. But is any evidence available in any part of the country to justify a statement that there is "an especial demand" to buy a house of this size and character? There may be a great need for housing accommodation "to let" at rents "something under 8s. per week," but not for selling purposes, at any rate for houses of the size of 760 square feet floor area.

This size of house was only fixed upon by so-called housing reformers because it was the "rock bottom" in accommodation and came nearest in rent (after taking into consideration the subsidy and rates contribution) to the house for which the majority of the homeless working-class citizens of this country could, with their small wages, afford to pay. Even then, in a large number of cases, it was only found possible to pay the rent by existing on an insufficient supply of food and clothing.

With the subsidy at £7 10s. and a contribution from the rates of £3 15s. per house, the weekly rent worked out at 4s. 9d. on a house costing £340 "all-in." Without either subsidy or rate contribution, the economic rent, according to the local authorities' method of calculation (with loan charges on the 60 years' annuity basis at $4\frac{3}{4}$ per cent.) is 8s. 6d. The net rent commonly charged by many local authorities for this type of house is 7s. per week.

In the same issue of your JOURNAL is given a reply by the Parliamentary Secretary to the Minister of Health to the effect that, on a house costing £320, to be erected under the new regime of co-operation between the building societies and the Minister of Health to provide houses to let for the poor and long-suffering working classes, it would take a rent of 9s. 2d. to meet the building societies' charges and provide 6 per cent. on the 10 per cent. of the capital provided by the builder. With an all-in cost of £340, the rent required would be about 9s. 9d. per week.

Assuming that rates, water, gas and electricity amount to 3s. per week, then the gross rents under the different methods of house erection would be :—

	At £340 "all-in" cost. Per week		At £300 "all-in" cost. Per week	
	s.	d.	s.	d.
Housing Act, 1924, with subsidy	7	9	7	$2\frac{1}{4}$
If erected by Local Authorities without any subsidy	11	6	10	6
If erected in 1933 and financed by a Building Society	12	9	11	$7\frac{1}{4}$

These figures are sufficient to show that, even with money at $4\frac{3}{4}$ per cent., from the prospective tenant's point of view, the erection of the houses by a local authority without subsidy is cheaper than provision by a building society on the terms of the figures given in the reply of the Ministry to a question put by Sir Francis Fremantle.

Touch-line criticism is futile; we must either get into the "scrimmage" or keep away from the "field." Talking or writing is not much good without constructive ideas or deeds; therefore, may I state the problem of housing very briefly, and my briefer suggestions for the solution?

The housing problem is how to give sufficient and satisfactory housing accommodation at a rental which the working man can afford to pay. What can he pay? What can a satisfactory house sufficient for his needs be built at? These are the two most important questions to be faced. It is dependent upon the answers to these two queries whether the problem can be solved or not.

Let me try and answer the last question first. If land is purchased and developed by the acre it may be secured for £100 to £150 per acre; assuming the latter figure and 15 houses to the acre, the cost would be £10 per house for land. The charges for roads and sewers will amount to, say, £35 per house. A house of 760 square feet floor area will cost £255 at the present time. The total "all-in" cost is, therefore, brought down to £300.

Can this figure be cheapened in any way? If standards are to be maintained, frankly, I do not think it can, for it is only by mass-production methods, where the number of houses to be erected is 100 or more, that such figures may be secured.

If the responsibility for housing the numberless people who definitely require accommodation, but who do not actually now live in slum areas, is to be left to the energies of private enterprise, some other method of financing and production will have to be found to take the place of the local authority. The methods of the small builder with the aid of the building societies will not suffice, unless there is evidence to show that the cost of money is very much lower than $4\frac{3}{4}$ per cent. as the cost of loan charges.

Assuming that this cost of money can be reduced to 4 per cent. on the annuity system for sixty years on an "all-in" cost of a house at £300, the rent and rates will be approximately 8s. 2d. per week.

Can a working man afford to pay this amount of rent and rates? Take a working-class family as consisting of man, wife and two children. In a pamphlet published by Miss Rathbone, M.P., the minimum cost of living needs (excluding rent), of such a family, is 42s. 1d. If the man is in work and earning 1s. per hour for a 44-hour week, there is only 2s. for rent; if the wages are 48s., there is 6s. for rent; if 50s., 8s. is left for rent. To be able to live in a house with rent and rates amounting to 8s. 2d. per week, the wage must be 50s. per week.

It would appear that, unless some method is conceived of lowering rents, a man with a less wage than 50s. (unless he lives in a slum area) will have to remain without a house.

What about the men with less wages? If houses are to be provided for this section of the community by private enterprise, then it would appear obvious that, even with careful organization and the use of cheap money (which term I should like to see explained), in order to bring down building costs, still further drastic reductions in accommodation and the costs of erection will have to be made.

If this is allowed, then it will be possible to secure a house at a cost of £250 which will allow of a rent of 4s. 4d. and with rates of 3s., a total of 7s. 4d. per week, which will go some way to meet the position; but it does not appear that the building societies, plus the small builder, can do very much in this field. The real endeavour, if one is to be made, will have to come from an entirely new organization with the co-operation of the building societies.

EASY TERMS
PLANS APPROVED

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright Reserved.

Failure of Setting Coat

¶ *FAILURE of a plaster ceiling on expanded metal lathing was reported. On inspection it was observed that the setting coat, stated to be a "Keene's" cement, had come away from the undercoat. Moreover, on the samples of the setting coat brought away for examination, an appreciable film of white salt was adhering to the part where the coat had been in contact with the backing. Little information could be elicited regarding the composition of the undercoat, but from a visual inspection it appeared to be Portland cement probably lightly gauged with lime. Both a pink and white Keene's had been used. It was interesting to note that the failure was solely confined to the pink type.*

The examples of the setting coat brought away have been superficially examined, and the following observations on the failure are offered.

The plaster is a pink-coloured, hard-burnt calcium sulphate plaster containing lime, apparently well carbonated. The considerable amount of white efflorescence is the result of crystallization of soluble salts on the back of the finishing coat. This is often found in cases of failure of adhesion of calcium sulphate plasters, in particular when over a Portland cement backing, the white powdery layer generally including both salts derived from the backing or plaster and fine particles of the plaster which may have failed to set in a coherent form.

The type of plaster employed in this case is sometimes slow in setting and, under unfavourable circumstances, the material in contact with the backing may dry out in a crumbling layer before it has a chance to hydrate properly. If subsequently the plaster becomes moist through condensation on the front or percolation of water from the backing, further hydration will occur, and may result in uneven expansion, buckling, and total loss of adhesion in certain areas. Once a gap forms, efflorescent salts will tend to accumulate here and complete the damage.

It should be noted that a plaster of this kind is not a true Keene's cement of the traditional type. The failure exemplifies one of the major difficulties which exists at the present time. In the absence of any formal specifications, reliance has to be placed on a very ill-defined nomenclature, and the user has to guarantee that the plaster has suitable properties for the work in hand.

The remedy would appear to be, first, the thorough cleansing of the exposed cement surfaces from efflorescent salts; secondly, the use of a Keene's cement which is well accelerated in order to gain strength rapidly, rather than a cement which may have a fast initial stiffening and which has consequently to be "killed" to get it on, but has a slow subsequent rate of hardening. The backing should be well wetted before application, though not sufficiently to cause the material to slide off. Some effort should be made to decrease the rate of drying after application.

Preventing Efflorescence on Bricks

¶ *AN architect was concerned with possible methods of preventing the appearance of efflorescence on the facing bricks of a garden retaining wall. It was the intention to construct the wall in reinforced concrete with a 4½ inch brick facing bonded to the backing with metal ties, and he required the views of the Station on the following alternative methods of treatment:—*

(1) To execute the concrete wall in high alumina cement and to bed the facing bricks in the same type of cement.

(2) To build the brick facing in lime mortar and to paint the back with a proprietary bitumastic paint.

(3) To employ a bitumastic paper between the facing wall and the concrete backing.

The architect added that the extra cost involved in carrying out the first scheme would be considerable, while the second scheme would, of course, fail if the impermeable coat was not continuous.

At the outset it should be mentioned that the problem of preventing efflorescence is one of considerable difficulty, but the following points would probably merit consideration in relation to the various alternatives.

(1) High alumina cement would in itself certainly be less likely than Portland cements to give rise to efflorescence, but it must be borne in mind in either case that salts from the soil will be liable to pass through the concrete.

It seems doubtful, therefore, whether the additional expense involved would be justified.

(2) A really continuous film of bitumen on the back of the bricks should be effective.

This, however, has the disadvantage referred to, and if it is to be reliable, the bitumen must be very carefully applied and care must be taken not to injure the film when the concrete is poured. There is on record at this Station one case where a retaining wall erected in this way on a very wet site was quite successful and no serious efflorescence occurred.

(3) A bituminous paper or felt would probably be very difficult to apply in such a manner as to provide a continuous membrane. Moreover, the ties would undoubtedly be a source of trouble and the laps of the paper would have to be satisfactorily water-proofed.

Unless the cost is prohibitive it is strongly urged that the most satisfactory method of construction from the point of view of freedom from efflorescence would be to keep the concrete and brick facing separate with a cavity between them. There would be no difficulty in tying the brickwork to the concrete backing and there would be reasonable certainty of avoiding efflorescence due to salts in the concrete or in the soil. It will obviously be desirable if this form of construction is adopted to provide efficient damp-proof courses at the top and bottom of the brickwork.

In order to avoid efflorescence due to salts derived from the jointing and pointing, a dense cement mortar should be avoided. A greystone dry hydrated lime, with a moderated gauging of Portland cement, should be satisfactory. The lime should be obtained under guarantee that it will pass the soundness test developed at this Station.

Decay of a Solid Wood Floor

¶ A SOMEWHAT unusual case of decay of a solid wood floor was brought to the notice of the Station. The construction was a common type, consisting of dovetailed wood fixing battens laid on a concrete base and covered with deal flooring ; hot tar-pitch was poured over the surface of the concrete before laying the boards.

The surrounds of the floor had been stained and the decay was confined solely to this area. The unstained portion appeared to be perfectly sound, although one batten beneath this area was reported to be affected.

A sample of the decayed wood was forwarded for inspection.

No case of an identical nature has been previously reported to the Station.

From a superficial examination of the sample forwarded it seems that the stain was a fairly thick varnish stain and actually this seems to be the most probable cause of the trouble. The thick covering of the stain has provided a virtually impermeable membrane, almost equivalent to linoleum or rubber covering. Impermeable coverings of this kind are a very prolific cause of dry-rot in floors, since any moisture which finds its way to the timber is retained.

The decay of the batten can probably be attributed to normal causes. The embedment of timber in solid floors is very liable to lead to decay unless the preservative treatment is very thorough, and actually in the light of present knowledge this particular type of construction is to be deprecated. It is noted that the sample of decayed board appeared to have been affected by *Merulius Lacrymans*, a rather aggressive type of dry-rot fungus, and one which demands very thorough measures in eradication, since once the growth has commenced it is capable of finding sufficient moisture from the air to flourish without any other source of water.

It is suggested, therefore, that any timber showing signs of infection, however slight, should be taken up and burnt, and that it would be very desirable to treat the boards with preservative before relaying the floor. It would also be preferable in staining the surrounds to avoid the varnish stain of the type previously used ; a preservative stain such as Solignum is quite suitable, and there are also a number of spirit stains which should not give an impermeable finish.

The new edition of " The Adventure of Building " has just been published. A few minor revisions have been made in the text, but the chief difference from the old edition lies in the illustrations, which are now all of cheaper houses, most of them costing about £1,000. Moreover, there is now not more than one house in any one county.

The Berks., Bucks., and Oxon. Architectural Society have bought 30,000 copies of the new edition and are distributing these copies among residents in the three counties which they represent. It is very much hoped that other societies will follow their example. Copies may be obtained from The Architectural Press, 9 Queen Anne's Gate, S.W.1.

It is assumed, of course, that any possible source of moisture access will be dealt with. It might also be as well to make good the tar-pitch covering before relaying, since it may well have been broken in taking up the boards.

Fire-Resistance of Sand-Lime Bricks

¶ AN architect wished to know at which temperatures sand-lime bricks, both in a dry and wet state, would be damaged by fire. He also desired information as to the temperatures which may be reached in buildings such as flats in the case of a serious fire.

Tests have been carried out at the Station on sand-lime bricks fired for periods of one hour at 600° C. No appreciable cracking or disintegration was noticeable at this temperature, though there was a loss of strength of the brick up to 35 per cent. of the original unfired values.

Further, tests have been carried out by the United States Bureau of Standards, Washington, on walls 8 ins. and 12 ins. thick built of sand-lime bricks, laid in a cement-lime mortar. These tests were carried out on sections of wall both unloaded and under a working load, the furnace temperatures on one side being raised from 927° C. after one hour to 1,370° C. after ten hours forty minutes. None of the 8 in. walls failed either as the result of deflection or applied load. One 12 in. wall, however, failed shortly before ten hours due to weakening of the bricks on the furnace side. Cracks up to ⅝ in. wide showed on the outside of unloaded walls, but cracks were very slight on the heated side. Headers were seldom found cracked in the central portion of the wall, so that the integrity of the wall as a building member was maintained.

Tests were also carried out wherein the walls were exposed to fire for one hour, then withdrawn from the furnace and subjected to a stream of water on the hot side. These fire and water tests developed nothing that would change the conclusions based on the fire endurance tests. The report includes the following table :

Ultimate Fire Resistance Periods of Solid Walls Built of Sand-lime Bricks

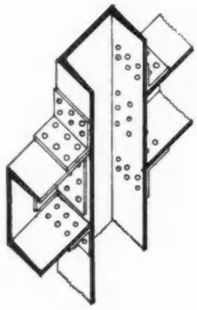
Nominal Thickness of Wall.		Building Members Projecting into Wall.	Fire Resistance Period.
8ins.	unplastered	None or incombustible	8 hours.
8ins.	,,	Combustible	3½hours.
12ins.	,,	None or incombustible	10 hours.
12ins.	,,	Combustible	10 hours.

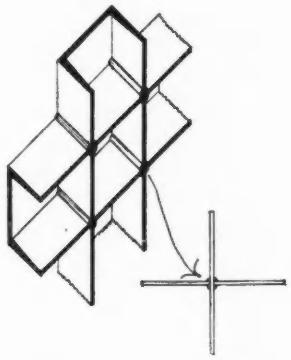
" For periods not exceeding six hours either Portland cement, cement-lime or lime mortar not leaner than 1.3 can be used. For walls having periods above six hours, Portland cement or cement-lime mortar should be used."

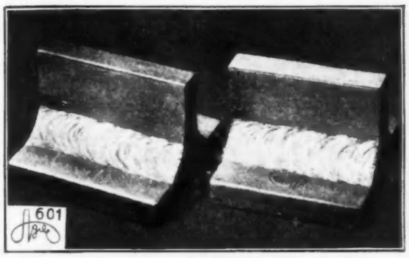
Tests have also been carried out in Stockholm on sand-lime brick walls 27 cms. thick, built in cement-lime mortar and plastered both sides with lime and sand-plaster. These testing temperatures were raised from 900° C. after one hour to 1,165° C. after eight hours. At the end of the eight-hour fire and water test the wall appeared to be in good condition, the actual wall units having retained relatively sharp edges and corners, though the mortar had been destroyed to a depth of about 5 to 10 cms., and had been washed away in parts by the water. On closer examination, however, it was found that the bricks had been damaged on the exposed side and showed cracks extending right through individual bricks as well as destruction of the actual brick material to a certain depth. The report states that both mortar and bricks were damaged to a depth of 5 to 10 cms., which measurements may also be taken to indicate the reduction in the effective cross-section which was caused in the wall (in its entirety) by the combined action of fire and water.

To summarize, sand-lime bricks, although likely to undergo rather more deterioration in a fire than ordinary clay bricks, may yet be stated to show quite satisfactory resistance for ordinary use ; in construction of buildings of the " flat " type there appears to be no objection to them on account of fire hazard.

With regard to temperatures actually reached in building fires it is regretted that no precise information is available for temperatures likely to be attained in a domestic building. A report of the United States Bureau of Standards, however, states that in burning down a building of the office type stocked with records to resemble normal office occupancy, temperatures of 1,350 to 1,650° F. were attained in 40 minutes to 1½ hours, and 1,500 to 1,780° F. in 1 hour 40 minutes to 5 hours.







Detail of a fillet weld.

TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Structural welding

I WENT last week to see the "all welded" factory at North Acton, where, although the job is a small single-story one, with no heavy members, the elimination of rivets, and a reduction in the size and number of gusset plates and cleats produces a clean and simplified finish and makes a considerable difference to the general appearance.

The steelwork is by the Aston Construction Co. and the welding work carried out, as a demonstration, by Agile, Ltd., who consider the saving in weight over a fabricated riveted job approximately 9 per cent., although a small one-story job of this type is not particularly favourable to comparisons, since it is in a heavier, multiple-story structure that welding, and the consequent elimination of rivet holes, enables lighter sections to be used, and a saving up to 20 per cent. made.

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I understand the Leipzig Municipal Authorities in 1931* built, as an experiment, two blocks of workmen's dwellings, alike in size, both steel-framed; one in the orthodox manner and the other welded, and claimed a 24 per cent. saving on the price of steelwork and frame erection for the welded job.

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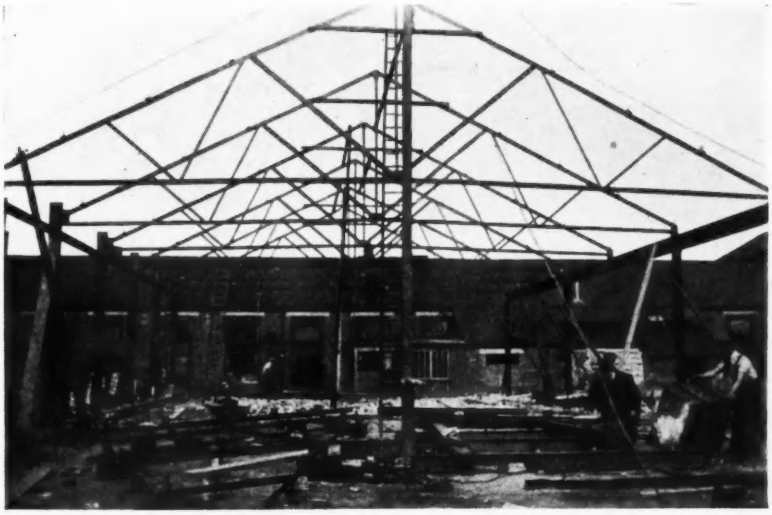
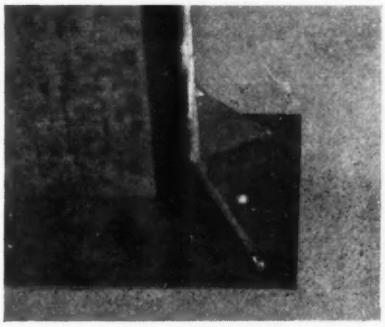
The welding process has been employed in America and on the Continent for steel-framed structures for ten years or more, and during the last five years progress has been rapid. The library at Yale University, which is one of the largest welded structures in the world, is 150 feet by 220 feet and 18 stories high. In England the obsolete bye-laws still enforced have prevented the welding of structures of more than one story, though a revision of restrictions is anticipated; and it is with this revision in view that the demonstration work at Acton has been done.

Messrs. Agile have supplied me with the following figures for the Acton job:



[Architects, Henry Butcher & Co.

A general view of the all welded factory shop at Victoria Road, North Acton. The photograph was taken eight days after the site was cleared for erection to commence.



A stanchion base assembled and ready for welding.

A welded joint at the centre of a truss. White paint, applied to the welded edges in order that they might show clearly in the photograph, gives the illusion of a rough finish.

Total net cost of welding: 60 hours of labour at 1s. 5d. = £4 5s., plus cost of electrodes (708 feet No. 8 and 609 feet No. 10) = £3 6s. 8d., plus current 10s., equals total net welding cost, £8 3s. 8d.

Saving in cost of steel work approximately 15 per cent.

Saving in cost on complete erected steel structure over riveted structure approximately 10 per cent.

The electrode used was the Agile "buff" which deposits metal having a tensile strength of 28/30 tons. The steel electrode is comparable to solder in that it melts and is deposited to form the joint: it must completely unite two pieces of metal, and the analysis of the weld must approximate to that of the parent metal. Under the Agile process the electrode consists of metallurgically coated wire, and, by regulation of the ingredients of the coating material, the characteristics in the deposited metal can be determined.

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It seems the designer of the welded structure must forget the methods and principles that apply to riveting, and think in terms of the new process. There are changes in the fabrication and the design of joints. Cleats and gusset plates can often be eliminated, and continuity of the lines of the girders obtained through the welded connections.

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* The German constructional welding code became effective in 1931.

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Arc-welded structures, through their rigidity, permit a reduction in wind bracing.

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Welding has a further advantage over riveting, in that the process is noiseless.

Cement glaze

I hear from Hoyle, Robson, Barnett & Co., the manufacturers of Glazement, that architects and builders have sometimes criticized the ideal specification for rendering to take cement glaze (given in these notes on April 19) on grounds of cost, and as a consequence an alternative specification has been prepared, and is found to be satisfactory in practice. This is :—

Scratch coat of Portland cement and sharp plastering sand 1 : 3, followed by ¼ in. Cement Marketing Company's waterproofed cement and sand 2:5, finished to a smooth even surface with a steel trowel.

Where such a rendering is employed, twenty-one days, at least, should elapse before the glaze is applied.

Literature Received

Architectural Scale Models	*W. Aumonier and Sons*
Architectural Lighting	*The E.L.M.A. Lighting Service Bureau*
Vertedge Wall-Tie	*Mosers, Ltd.*
Portcullis Gas Fires	*Bratt Colbran*
Metal Angle Bead	*Blagg and Johnson*

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

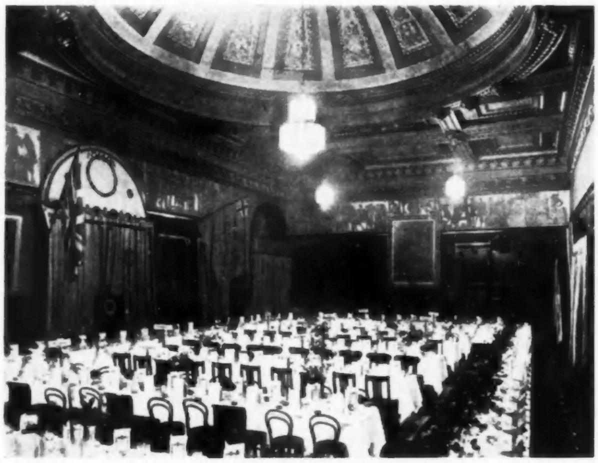
Sky Writing

BEFORE Parliament adjourned for the Easter recess, Mr. Lewellyn-Jones asked the Secretary of State for the Home Department if he proposed to introduce at an early date legislation to give effect to the recommendations of the Select Committee on Sky Writing.

Sir J. Gilmour said it was not proposed to consider the question of introducing legislation until some experience had been gained of the effectiveness of the voluntary control which was being exercised by a body representative of advertisers, advertising agents, firms engaged in sky-writing, and other interests, which had been set up in accordance with the recommendation contained in paragraph 44 of the Report of the Select Committee. Should legislation ultimately prove to be necessary, the experience of the working of the voluntary system would provide useful knowledge of the practical difficulties for which provision had to be made.

School Building Schemes

Mr. Hicks asked the Parliamentary Secretary to the Board of Education if he would state the number of school building schemes throughout Great Britain prepared at the 1st August, 1931, and since that date, the estimated total cost thereof, and the number suspended or abandoned, together with the estimated cost.



The Great Hall at the old Trades House, Glasgow, which has been installed with new lighting fittings. See note on this page.

Mr. Ramsbotham said that the total number of schemes for the building of new schools or the improvement of existing schools in England and Wales, which were under consideration by the Board of Education on 1st August, 1931, or received since that date, was 1,223, involving an estimated expenditure of £5,257,000. Of these schemes 93, involving an estimated expenditure of £313,000, had been rejected by the Board.

Trade Item

The lighting problem of the Great Hall at the old Trades House, Glasgow, was to give a sufficient illumination on the floor area, and to also arrange the light distribution so that the frieze and ceiling should receive a special intensity, and that the painted figures on the frieze should be visible ; not an easy problem, as the colours, figures and background were not in contrast.

The previous lighting fittings were cluster electroliers, already converted, with a large number of small bulbs and shades.

The fittings ultimately chosen are polyhedron in section, having seven main Holophane Pagoda panels with seven inset glass panels between, fourteen panels in all. In the lower section of the fitting is arranged a Holophane Filterlite semi-indirect bowl, designed to redirect the main light upward. In the interior of the fitting is a Holophane band type refractor which gives a very wide light distribution in a narrow zone, this being particularly required for lighting the frieze, as can be seen in the photograph on this page. The metalwork is of heavy cast cathedral brass finish, the corona finishing with the " Trades House " crest of fourteen arrows. This description is in reference to the four side fittings. For the centre dome fitting one of a much larger construction was necessary. Here the same general design was adopted, but the fitting was made in two tiers. The top tier is similar to the side fittings, but the bottom tier consists of fourteen Holophane Pagoda panels, with an 18 in. Holophane Filterlite bowl for the bottom member. A cluster of seven lamps and reflectors are fitted inside the lower tier, with also a 500-watt lamp in position for the semi-indirect Filterlite bowl. The upper tier is arranged with one 500-watt lamp.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :—

Southgate Underground Station (pages 553-556). General contractors, Bovis, Ltd. Sub-contractors : Ames and Finnis, facing bricks : Brookes, Ltd., Cornish granite ; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt : Carter and Co. Ltd., wall tiling ; Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, concrete partitions ; Liverpool Artificial Stone Co., Ltd., precast concrete work ; Empire Stone Co., precast curbs ; Victoria Stone Co., Ltd., paving ; Marbello, Ltd., floor paving ; North British Rubber Co., rubber flooring ; Carter & Co., Ltd., terrazzo flooring ; Acme Flooring Co., Ltd., hardwood flooring ; Crittall Manufacturing Co., Ltd., shop fronts, window frames and top lights ; Davidson & Co., electrical fan installation, metal ducts and louvres ; Fredk. Sage & Co., Ltd., poster and map frames, stall fronts and bronze frieze ; Bolton Gate Co., Ltd., collapsible gates ; Sankey Sheldon, Ltd., cloak room racks ; Light Steelwork, Ltd., barrier posts and chains ; Pollard and Co., Ltd., passimeter booth ; J. R. Pearson (Birmingham), Ltd., bullseye signs ; Shanks, Ltd., sanitary fittings ; J. P. White & Sons, Ltd., flush doors ; Fredk. Jukes, ticket collector's box ; James Gibbons, Ltd., door furniture ; Starkie Gardner and Co., Ltd., light-fitting on tower.

Italian Embassy : Chancery Building (page 562). General contractors : G. E. Wallis and Sons, Ltd. Sub-contractors : Matthew T. Shaw & Co., Ltd., steelwork ; Stigler, of Milan (represented in London by Messrs. Porn and Dunwoody, Ltd.), lifts ; R. Marus & Co., floor and wall tiling ; Adrian Stokes & Co., architectural metalwork ; C. P. Kinnell & Co., Ltd., heating ; Bective Electrical Co., Ltd., electrical installation to the Italian Zois system ; Shanks & Co., Ltd., sanitary fittings; V. Franchi & Co., oak parquet flooring ; L. F. Roslyn, Esq., R.B.S., stone carving ; Frigidaire, Ltd., refrigerators ; Benham & Sons, Ltd., kitchen equipment. The whole of the fire-resisting floors and flat roofs were carrried out by Frazzi Ltd. on the Frazzi Self-Centering Fire and Sound Resisting System.

A Thatched Cottage in Warwickshire (page 558). General contractors, T. Gudgeon and Sons. Sub-contractors : Farman Bros., thatchers ; Crittall Manufacturing Co., Ltd., steel casements ; City Iron Co., sanitary goods ; H. W. Dutton and Co., Ltd., hot water.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the FINCHLEY U.D.C.: Two houses, Brim Hill, for Mr. G. Ramsbottom; two houses, Derwent Crescent, for Mr. W. S. Cook; four houses, Greenhalgh Walk, for Mr. G. C. Swanson; three houses, Kingsley Way, for Mr. L. C. Gibson; engineers' shop, Cambridge Works, Bedford Road, for Mr. F. Seymour; shop, Ballards Lane, for Mr. W. Daniels; four houses, Chessington Avenue, for Mr. P. J. Preston; 55 houses, Parkside Crescent, for Messrs. Golders, Ltd.; two houses, The Leys, for Mr. G. Ramsbottom; eight shops and four flats, Regent's Park Road, for Messrs. C. F. Day, Ltd.

Plans passed by the FRIERN BARNET U.D.C.: Four houses, Friern Park, for Mr. C. N. Boswell; two houses, St. James's Avenue, for Messrs. Champ and Cole; four houses, Friary Road, for Mr. A. Bryett; four shops with flats, Great North Road, for Messrs. Montague Homes and Sons; four houses, Friern Barnet Lane, for Mr. W. A. Peake.

The Middlesex C.C. has adopted a revised scheme for the provision of additional permanent accommodation for nurses at HILLINGDON County Hospital, at a cost of £20,000.

The ILFORD Education Committee has obtained sanction to borrow £36,145 for the erection of two senior departments at Mayesbrook School.

Plans passed by the ILFORD Corporation: 76 houses, Royston Parade; eight houses, Headley Approach, shop and house, Aldborough Parade, for Mr. J. Aldridge; swimming pool, Barnado's Homes, Barkingside, and factory extensions, Ilford Electrical Co.'s works, Bogies Alley, for Mr. T. Anders; two houses, Albert Road, two houses, Falmouth Gardens, and 12 houses, Newquay Terrace, for Mr. C. F. Seigerts; three shops and tea room over, Eastern Avenue, for Mr. H. Shaw; eight houses, Stonehall Avenue, two houses, Vista Drive, for Mr. P. G. Ashton; two bungalows, Tomswood Hill, for Mr. F. Smith; alterations, "General Havelock," public-house, High Road, for Mr. S. A. S. Yeo; two houses, Breamore Road, for Messrs. J. W. Moore and Son; eight bungalows, Roding Lane, for Mr. W. M. Edwards; 12 houses, Fremantle Road, for Messrs. T. B. Goodwin, Ltd.; six houses, Donnington Avenue, for Messrs. Goodchild & Co.; 59 houses, Primrose Avenue, for Messrs. P. Triplete, Ltd.; three shops and houses, High View Parade, for Messrs. P. E. Brand, Ltd.; 15 shops and houses, Chadwell Heath Lane, for Mr. A. W. Heppell; 15 shops and houses, Chadwell Heath Lane, for Mr. T. G. Collins; 16 houses, Glenthorne Gardens, for Mr. R. Prior. Plans submitted: 10 houses, Shirley Terrace, for Mr. F. Smith; four shops and houses, Green Lanes, for Messrs. Stoneley and Son; 153 houses, Trelawny Road, for Mr. G. F. Seigerts; 12 houses, Mortlake Road, for Messrs. E. Glenny and Son.

The Middlesex C.C. is to adapt Percy House Schools, ISLEWORTH, for the accommodation of approximately 224 able-bodied institutional inmates, at an estimated cost of £23,000 (including equipment).

Plans passed by the LEWISHAM B.C.: Three shops, Davenport Road, for Messrs. Walker, Clinging & Co.; six houses, Algiers Road, for Messrs. T. H. Sawyer and Son; additions, 116-18 Rushey Green, for Boots' Pure Drug Co., Ltd.; three houses, Westwood Park, for Mr. E. C. Christmas; two houses, Honor Oak Park, for Messrs. A. Bulmer & Co.; three houses, Le May Avenue, for Mr. S. E. Wootton; three flats, Blackheath Hill, for Mr. D. T. Walters; buildings, 115-7 Westwood Park, for Mr. H. Macintosh.

The MIDDLESEX C.C. Licensing Committee has approved plans of the following premises: Proposed new cinematograph theatre, Kenton Road and Honeypot Lane, Kingsbury; proposed new cinematograph theatre, Bowes Road, Southgate (proposed variation); Northwick Park Hall, Kenton, Wealdstone (proposed alterations and additions); Empire Theatre, Edmonton (proposed alterations); "Steam Packet" Hotel, Strand-on-Green, Chiswick (proposed alterations); Orchard Hotel, Ickenham Road, Ruislip (extension of premises).

Plans passed at PURLEY: Two houses, Famet Avenue, for Messrs. E. T. Brown and Son; two houses, Hartley Way, for Mr. F. A. Freeman; six houses, Haydn Avenue, for Mr. H. W. Lee; 11 shops, High Street, for Messrs. Hooker and Rogers; four houses, Famet Avenue, for Messrs. E. T. Brown and Sons.

SOUTHERN COUNTIES

Plans passed by the GILLINGHAM Corporation: House, Trinity Road, three houses, Gordon Road, and four houses, Orchard Grove, for Mr. W. E. R. Randall; two houses, Woodside, for Mr S. Durling; shop, 37 High Street, for Mr. J. Clark; four houses, Soloman Road, for Mr. F. E. Howland; office and shop, 111 Nelson Road, for Messrs. Mead and McDermont; five houses, Carlton Avenue, for Mr. F. S. Rowden; additions, Freemasons Hall, Balmoral Road, for Messrs. T. Cornelius and Son; seven houses and one shop, Star Lane, for Mr. F. T. Mattocks; shop and house, Rainham Mark, for Mr. H. Hinkley; estate roads, Chalkenden Estate, Watling Street, for Mr. F. B. Hooper.

Plans passed by the GUILDFORD Corporation: New road, off Grove Road, for Mr. W. R. Lamdin; school, Southway, for Education Committee; alterations, Playhouse cinema, Castle Street, for County Cinemas, Ltd.; new road, Abbotswood, for Mr. H. E. Churchman; offices and garage extensions, Woodbridge Road, for Aldershot Traction Co., Ltd.; remodelling, "Vintners' Arms" public-house, for Hodgsons Kingston Brewery Co., Ltd.; three houses, Scillonian Road, for Mr. J. Knight; two houses, Iveagh Road, for Messrs. W. Bullen and Sons, Ltd.; shop, Stoughton Road, for Mr. Hannaford; two houses, Mount Farm Estate, for Mr. J. Purser; 10 houses, Manor Road, for Mr. W. Hoptriff; drying kiln, Woodbridge Park Saw Mills, for Messrs. Ingram, Perkins & Co., Ltd.; 10 houses, Old Palace Road, for Messrs. Tribe and Robinson, Ltd.; two houses, Old Farm Road, for Mr. A. E. Woodhatch.

Plans passed by the HASTINGS Corporation: Seven houses, Old London Road, for Messrs. Ward, Son and Wray; four houses, Adelaide Road, St. Leonards, for Mr. H. H. Ford; additions, 3 Trinity Villas, for Mr. J. Hunt; additions, 61 Marina Street, St. Leonards, for Messrs. Ward, Son and Wray; additions to shop, 9 Wellington Place, for Mr. G. F. Miller; eight houses, Barley Lane, for Mr. F. H. W. Green; additions to shop, Robertson Street, for Messrs. H. N. Barnes, Ltd.; factory, Landview Terrace, Old London Road, for Messrs. Farmer and Lovell; additions, 39 Battlefield Road, St. Leonards, for Messrs. Jeffery and Bowcock; two houses, Barley Lane, for Mr. J. Hunt; alterations, Old Post Office premises, for Messrs. Jeffery and Bowcock.

MIDLAND COUNTIES

The LEICESTER Corporation is to construct roads and sewers at a cost of £11,000 at Freakes Ground, as a preliminary to the erection of houses for persons to be displaced by clearances.

Plans passed by the MANSFIELD Corporation: Five houses, Cock Lane, for Messrs. Read and Layton; four houses, Southwell Road, for Mr. C. C. Stafford; spray shop, Victoria Street, for Whiteley Electrical Radio Co.; three bungalows, Black Scotch Lane, for Mr. F. Fowler; two houses, Berry Hill Lane, for Mrs. A. E. Baxter; six houses, Nottingham Road, for Messrs. H. Baggaley, Ltd.; two houses, Brick Kiln Lane, for Mr. T. E. Carlisle; clinic, Hermitage Avenue, and laundry at Poor Law Institution, for Notts. County Architect; eight houses, Eakring Road, for Mr. R. Lane.

Plans passed by the NORTHAMPTON Corporation: Eight houses, Greenfield Road, for Messrs. T. Wilson and Son, Ltd.; factory alterations, Bedford Road, for Messrs. Flecknall, Barnard and Scott, Ltd.; four houses, Pinewood Road, for Messrs. Jordans; pavilion extension, Melbourne Road, for West End Bowling Club; house and shop, Balmoral Road, for Mrs. F. Beaton; 11 houses, Monks Park Road, for Mr. W. B. Chattell; house and shop, Stanhope Road, for Mr. W. F. Hill; two houses, Cranmere Avenue, for Messrs. A. Glenn and Sons, Ltd.; four shops and houses, Kettering Road, for Messrs. Chowns, Ltd.; rebuilding Franklins Gardens Hotel, Weedon Road, and Britannia Inn, Barrack Road, for Messrs. P. Phipps & Co., Ltd.

NORTHERN COUNTIES

Plans passed by the BARROW-IN-FURNESS Corporation: Alterations and additions at 113, Duke Street, for the Scottish Legal Life Assurance Society; 38 houses, Ancaster Street, for Mr. F. Barrow; alterations and additions at 199, Dalton Road, for the Meadow Dairy Co., Ltd.

The BOLTON Corporation is to erect 43 houses in Gibbon Street, at a cost of £14,906.

Plans passed by the CHORLEY Corporation: Eight houses, Pilling Lane, for Mr. C. W. Norris; 10 houses, Oakwood Road, for Messrs. A. Derbyshire and Co.; 10 houses, Burgh Lane, for Mr. Wm. Critchley; 10 houses, Russell Square West, for Mr. George Berry; two houses, Queen's Road, for Mr. Wm. Hampson.

Plans passed by the ECCLES Corporation: Five houses, Southlands Avenue, for Messrs. J. Chapman and Son, Ltd.; three houses, Oxford Avenue, for Mr. J. Lomax; slaughter-house, Barton Road, for Mr. S. Pemberton; alterations and additions, 2, Church Street, for Cliftons Chocolates Ltd.; two houses, Highfield Road, for Mr. F. Speakman; four houses, Chatsworth Road, for Messrs. A. Artingstall and Son.

Plans passed by the KEIGHLEY Corporation; Four bungalows, Bankfield Street, for Mr. Frank Smith; four houses, Oakworth Road, for Mr. David Fortune; four bungalows, West Lane, for Mr. Eric Lister; 17 houses, Colenso Drive, for Messrs. W. and H. Whitaker; 11 houses, Surrey Street, for Mr. Thos. A. Lister; 14 houses, Manville Walk, for Mr. Albert Sharp; 15 houses, Cromer Grove, for Mr. James Wharton.

The LEEDS Corporation has authorized the expenditure of £79,796 for the erection of 200 houses on the Potternewton Estate, 66 houses on the Tore Estate, and 14 houses on the Southfield Estate.

Plans passed by the MORECAMBE Corporation: Two houses, Woodhill Lane, for Mr. W. Sanders; four houses, Lancaster Road, for Mr. B. Holmes; four houses, Lancaster Road, for Mr. R. Bigland; three houses, Oxcliffe Road, for Mr. S. Shackleton; eight houses, Broadway, for Messrs. Hillman and Son; three flats and shops, and four houses, Heysham Road and Knowlys Road, for Strawberry Gardens (Heysham) Ltd.; two houses, Twenlow Parade, for Mr. J. H. Atkinson; 20 houses, Buckingham Road, for Messrs. Wm. Gardner and Co.; four houses, Endcliffe Road, for Messrs. Bell and Isaacs; two bungalows, Ruskin Drive, for Mr. J. W. Hacking; 14 houses, Morecambe Road, for Mr. A. Heathcote; two houses, West End Road, for Messrs. Naylor and Robinson; two houses, Lonsdale Avenue, for Mr. H. Allen; shop and house, and two houses, Heysham Road, for Mr. F. Wyton.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid Counties	1 4½	1 0½
B	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_1	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_2	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2½
General Labourer	,,		1	2½
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES.	Per cent.		Per cent.
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2½
,, ,, 26 oz. ,, ,, ,,	,,					3½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay . . . add	,,		3	0
If in underpinning . . . ,,	,,		5	0
Digging, return, fill and ram . . . ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
½" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	,,	7	9	1 0	1 3	2 0	—
Boiler screws and unions	,,	3 6	4 0	5 6	8 0	—	—
Lead traps	,,	—	—	—	7 6	10 0	—
Screw down bib valves	,,	7 6	10 6	12 6	—	—	—
Do. stop cocks	,,	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7¼
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

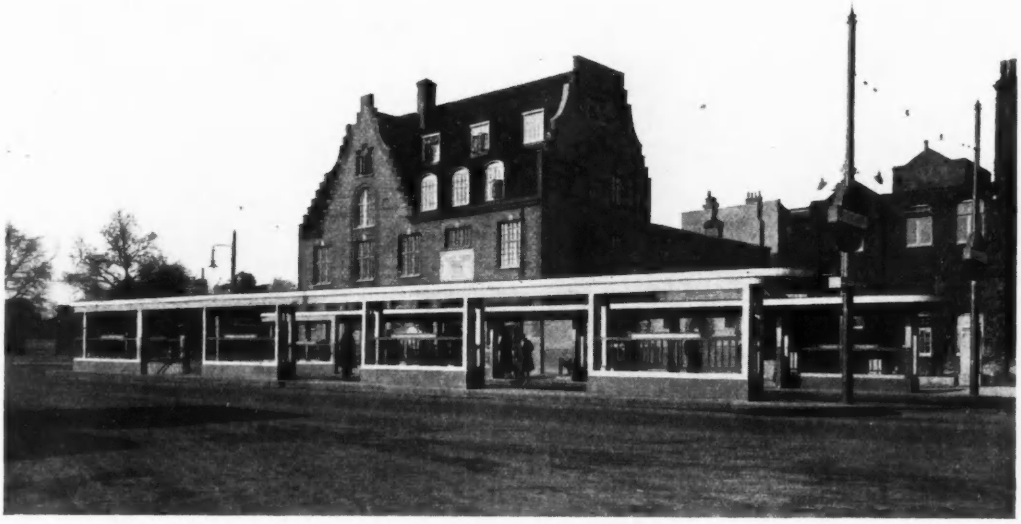
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . from	,,	2	9

Supplement to THE ARCHITECTS' JOURNAL for April 26, 1933

AT MANOR HOUSE STATION

TRAMWAY SHELTER : UNDERGROUND : DIRECTION SIGN

: ADAMS, HOLDEN AND PEARSON, ARCHITECTS :



THE TRAMWAY SHELTER, SHOWING MANOR HOUSE

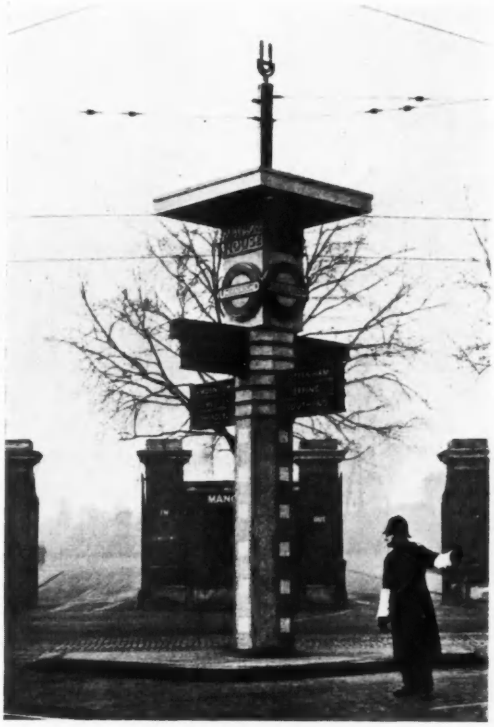
IN this issue illustrations and drawings are given of Southgate Station, on the latest London Underground Tube Railway. This supplement is devoted to incidental structures at Manor House Station on the same line. [Illustrations of this Station appeared in the issue for December 28, 1932, which also contained drawings and pictures of five other new Underground Stations. That at Enfield West was dealt with in the issue for March 29, 1933.]

The tramway shelters (see within) are constructed in reinforced concrete, with a Portland stone aggregate rubbed down with a carborundum wheel, the skirtings being finished in black biancola.

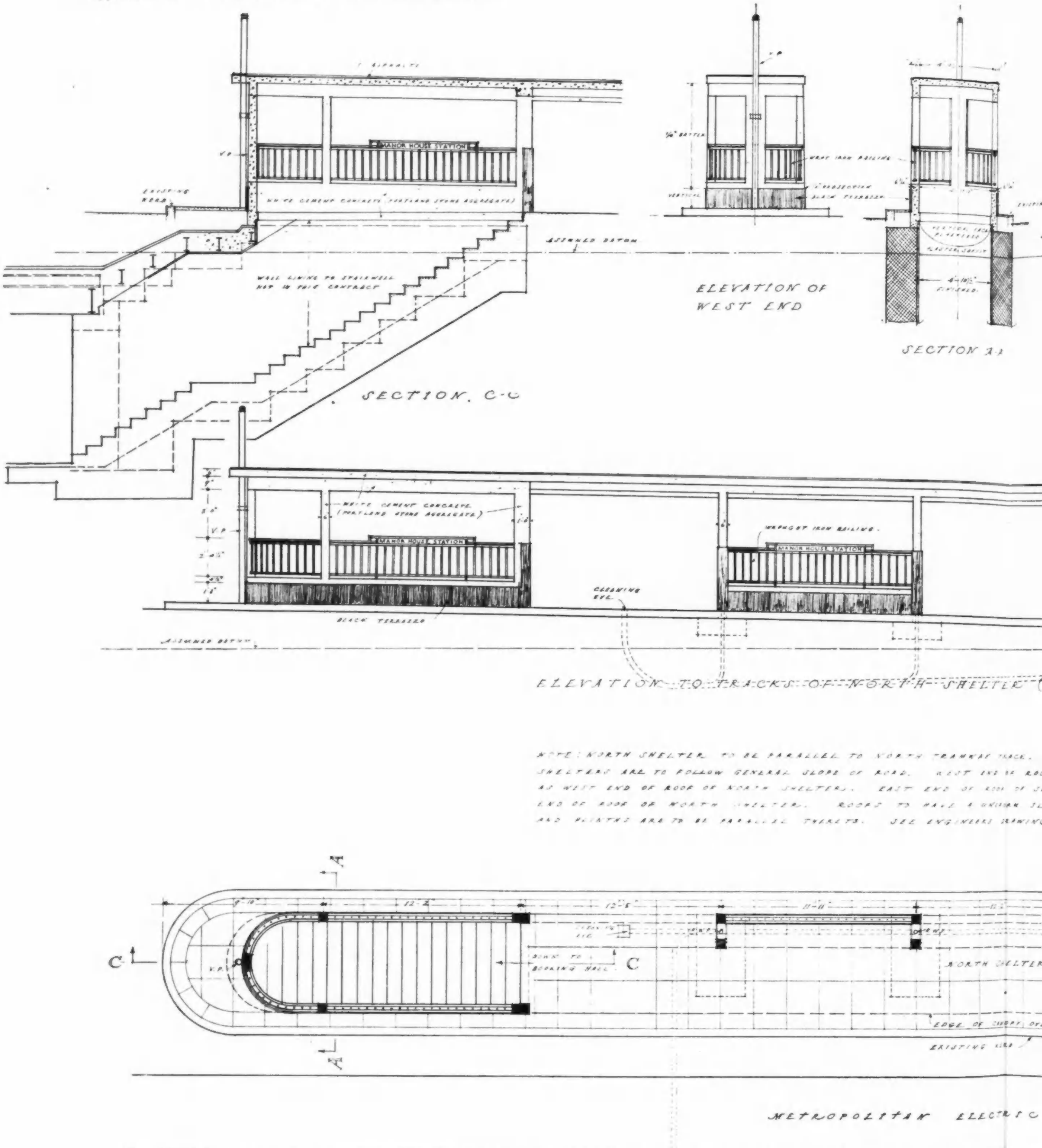
The roofs are cantilevered out from the twin stanchions, except at the one end where the staircases lead down to the railway booking hall below ground. The railings are in wrot iron with bronze name panels.

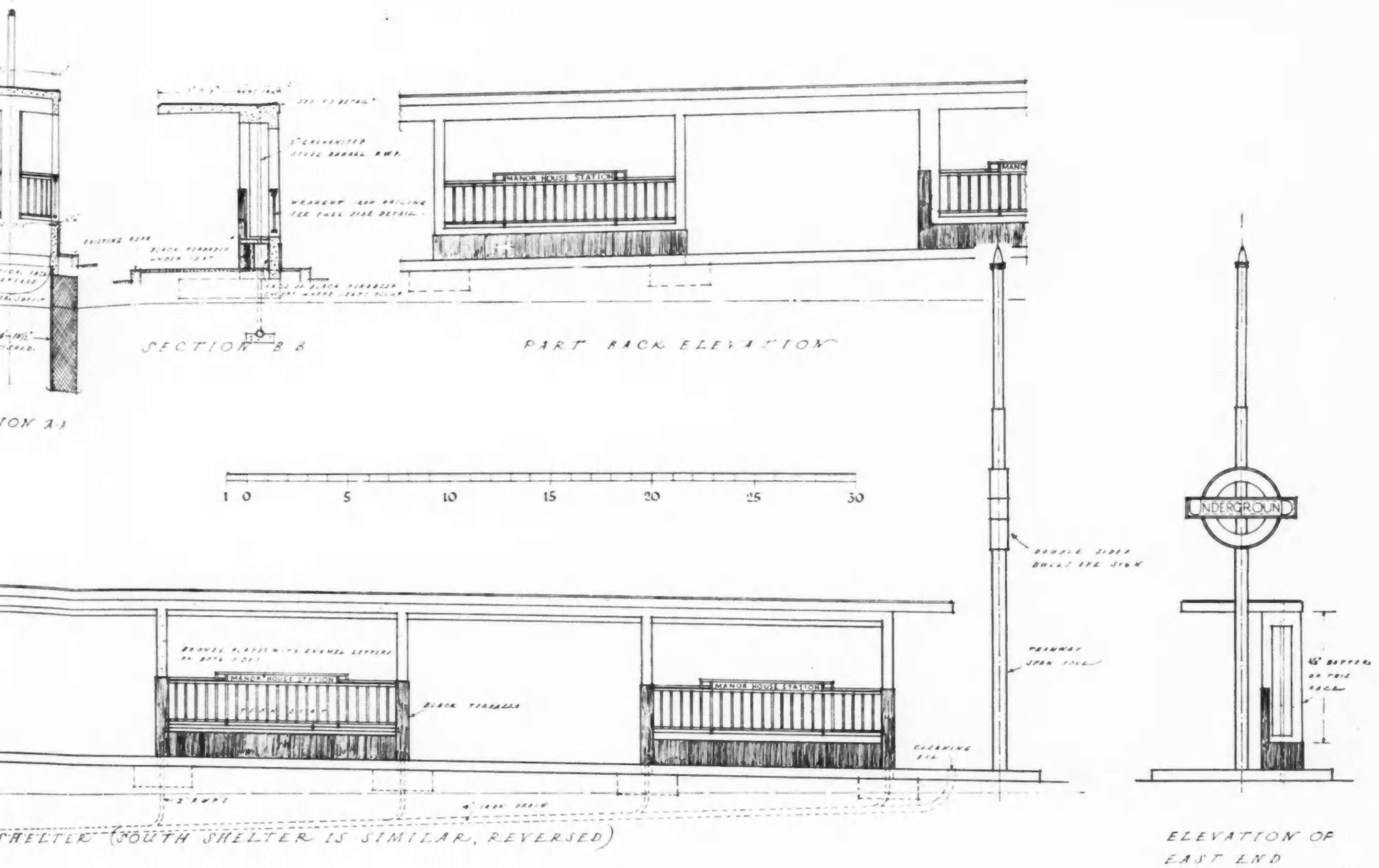
The direction sign (see last page of this supplement) is in concrete, faced in black marble mosaic in the lower part and in Portland stone concrete pre-cast blocks in the upper, built around the tramway span pole with a 3-inch clearance to allow for the vibration caused in the latter by the movement of the trams.

The sign boxes themselves are of bronze, with illuminated panels showing white in daylight and orange at night. The projecting canopy at the top serves as a boxing for the street lighting, which also illuminates the enamelled iron bullseye signs on each face.

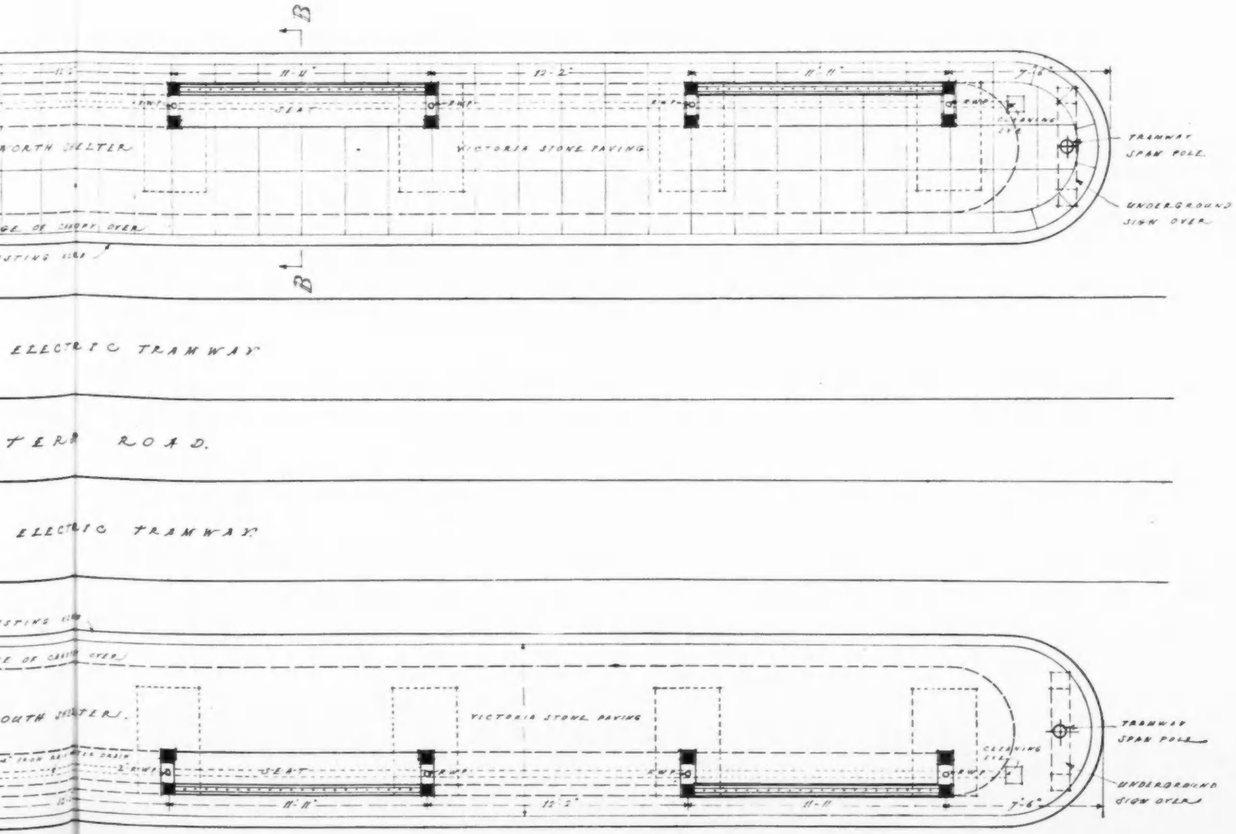


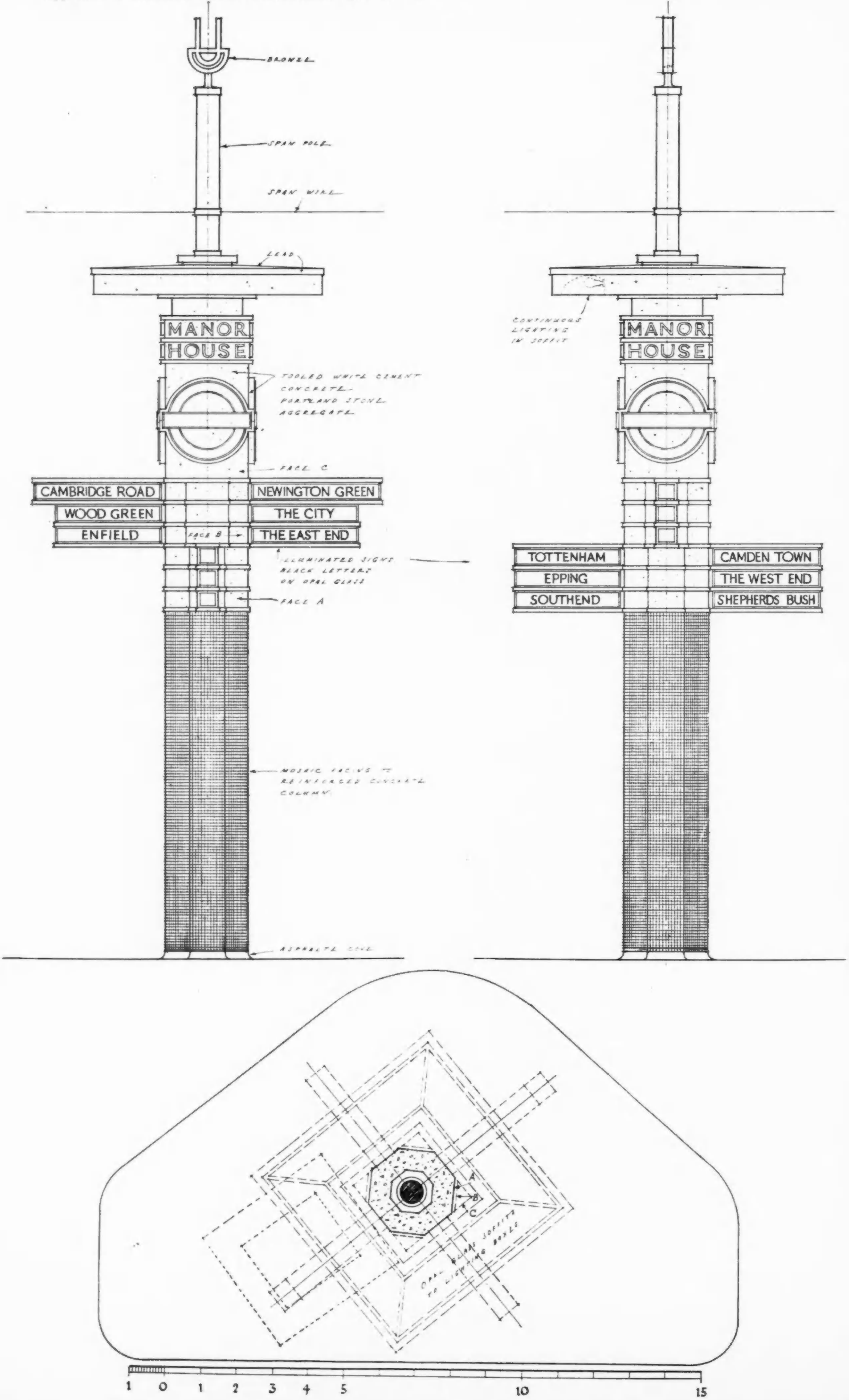
THE NEW SIGN POST


ASPHALTE
MANOR HOUSE STATION
V.P.
EXISTING KERB
WHITE CEMENT CONCRETE (PORTLAND STONE AGGREGATE)
ASSUMED DATUM
WALL LINING TO STAIRWELL NOT IN THIS CONTRACT
SECTION. C-C
WROUGHT IRON RAILING
BLACK TERRAZZO
ELEVATION OF WEST END
SECTION A-A
WHITE CEMENT CONCRETE (PORTLAND STONE AGGREGATE)
WROUGHT IRON RAILING
CLEANING EYE
BLACK TERRAZZO
ASSUMED DATUM
ELEVATION TO TRACKS OF NORTH SHELTER
NOTE: NORTH SHELTER TO BE PARALLEL TO NORTH TRAMWAY TRACK.
SHELTERS ARE TO FOLLOW GENERAL SLOPE OF ROAD. WEST END OF ROO
AS WEST END OF ROOF OF NORTH SHELTERS. EAST END OF ROOF OF S
END OF ROOF OF NORTH SHELTER. ROOFS TO HAVE A UNIFORM SL
AND PLINTHS ARE TO BE PARALLEL THERETO. SEE ENGINEERS DRAWING
A
C
C
DOWN TO BOOKING HALL
NORTH SHELTER
EDGE OF CANOPY OVER
EXISTING KERB
9'-10"
12'-2"
12'-5"
11'-11"
METROPOLITAN ELECTRIC
SEVEN SISTERS R
METROPOLITAN ELECTRIC
EXISTING KERB
EDGE OF CANOPY OVER
SOUTH SHELTER
DOWN TO BOOKING HALL
V.P.


SEE R.C. DETAIL
3" GALVANIZED STEEL BARREL R.W.P.
WROUGHT IRON RAILING SEE FULL SIZE DETAIL
EXISTING KERB
BLACK TERRAZZO UNDER SEAT
FACE OF BLACK TERRAZZO ... UNDER SEAT SOLAR
SECTION B B
MANOR HOUSE STATION
PART BACK ELEVATION
ON A-A
1 0 5 10 15 20 25 30
BRONZE PLATES WITH ENAMEL LETTERS ON BOTH SIDES
MANOR HOUSE STATION
BLACK TERRAZZO
DOUBLE SIDED BULLS EYE SIGN
TRAMWAY SPAN POLE
CLEANING EYE
2" R.W.P.S
4" IRON DRAIN
UNDERGROUND
½" BATTER ON THIS FACE
SHELTER (SOUTH SHELTER IS SIMILAR, REVERSED)
ELEVATION OF EAST END

AMWAY TRACK. SOUTH SHELTER TO BE PARALLEL TO SOUTH TRAMWAY TRACK.
EST END OF ROOF OF SOUTH SHELTER TO BE AT SAME LEVEL ABOVE DATUM
OF ROOF OF SOUTH SHELTER TO BE AT SAME LEVEL ABOVE DATUM AS EAST
A UNIFORM SLOPE BETWEEN THE TWO ENDS AND LINES OF BEAMS, RAILINGS
GINEERS DRAWINGS FOR DETAILS OF REINFORCED CONCRETE CONSTRUCTION.

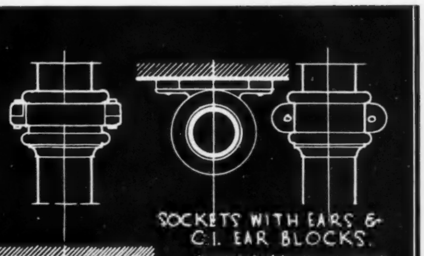

B
11'-11"
12'-2"
11'-11"
7'-6"
SEAT
R.W.P.
NORTH SHELTER
VICTORIA STONE PAVING
CLEANING EYE
TRAMWAY SPAN POLE
UNDERGROUND SIGN OVER
EDGE OF CANOPY OVER
EXISTING KERB
B
ELECTRIC TRAMWAY
TERN ROAD.
ELECTRIC TRAMWAY
EXISTING KERB
EDGE OF CANOPY OVER
SOUTH SHELTER.
VICTORIA STONE PAVING
4" IRON RAINWATER DRAIN
2" R.W.P.S
SEAT
R.W.P.
CLEANING EYE
TRAMWAY SPAN POLE
UNDERGROUND SIGN OVER
11'-11"
12'-2"
11'-11"
7'-6"

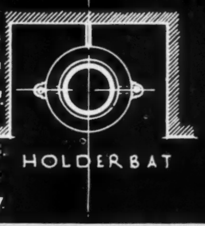

BRONZE
SPAN POLE
SPAN WIRE
LEAD
MANOR HOUSE
TOOLED WHITE CEMENT CONCRETE PORTLAND STONE AGGREGATE
FACE C
CAMBRIDGE ROAD
WOOD GREEN
ENFIELD
NEWINGTON GREEN
THE CITY
THE EAST END
FACE B
ILLUMINATED SIGNS BLACK LETTERS ON OPAL GLASS
FACE A
MOSAIC FACING TO REINFORCED CONCRETE COLUMN
ASPHALTE COVE
CONTINUOUS LIGHTING IN SOFFIT
MANOR HOUSE
TOTTENHAM
EPPING
SOUTHEND
CAMDEN TOWN
THE WEST END
SHEPHERDS BUSH
A
B
C
OPAL GLASS SOFFITS TO LIGHTING BOXES
1
0
1
2
3
4
5
10
15

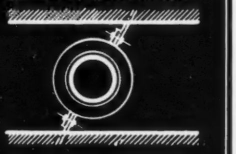
SIZES ETC. OF PIPES AND PIPE CHASES.

CAST IRON PIPE (SOIL, WASTE, VENT, & HEAVY RAINWATER).

Internal diameter	1½"	2"	2½"	3"	3½"	4"	5"	6"	9"
External diameter	1⅞"	2⅜"	2⅞"	3½"	4"	4½"	5½"	6½"	10"
Socket, overall diameter	2⅛"	4"	4½"	5⅛"	5¾"	6¼"	7½"	8½"	13½"
Socket, external depth	2⅞"	3⅛"	3⅜"	3½"	3¾"	3¾"	4"	4¼"	5"
Ears, overall length	5"	5½"	6"	6⅝"	7½"	8"	9⅜"	10⅜"	-
Holderbat, overall.	5¾"	6¼"	6¾"	7¼"	7¾"	8½"	9⅝"	10⅜"	15"
Wall chase, width	7"	7½"	8"	8½"	9"	9½"	10½"	11¾"	16"
Wall chase, depth (for h'bat)	5"	5½"	6"	6½"	7"	7½"	8½"	9½"	14"
Floor hole, square	4"	4"	4½"	5"	6"	6"	8"	9"	12"
L.C.C. requirements (1932 draft bye-laws.)									
Weight per 6'0" length. (1. pipe S.)	22.	24	30	40	48	54	78	92	in lbs.
Weight per 6'0" length. (2. pipe S.)	22.	24	30	35	41	46	59.	71.	in lbs
Capacity, gallons per ft. run.	·076	·136	·212	·305	·416	·542	·848	1·225	2·07.

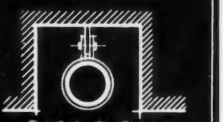

SOCKETS WITH EARS & C.I. EAR BLOCKS.

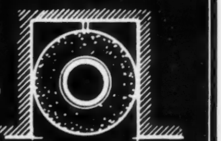

HOLDERBAT


W.I. STRAP HOLDER.

SCREWED. W.I. PIPE : SOIL, WASTE, VENT ETC., HOTWATER HEATING, HOT & COLD SERVICES.

Internal diameter, nominal.	⅜"	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4'	5"	6"
External diameter	11/16"	27/32"	1 1/16"	1 11/32"	1 11/16"	1 29/32"	2⅜"	3"	3½"	4½"	5½"	6½"
Flange diameter	·	3¾"	4"	4½"	4¾"	5¼"	6"	6½"	7¼"	8½"	10"	11"
Wall chase, width	3½"	3½"	4"	4"	4½"	4½"	5"	5½"	6"	7"	9"	10"
Wall chase, depth. (not lagged)	2"	2½"	3"	3"	3½"	3½"	4"	4½"	5"	6"	7"	8"
Wall chase, depth (lagged)	2½"	3"	3½"	4"	4½"	5"	5½"	6"	6½"	7½"	9½"	10½"
Lagging thickness	1"	1"	1"	1¼"	1¼"	1¼"	1¼"	1½"	1½"	1½"	2"	2"
Floor hole, square	1½"	1½"	2"	2"	2½"	3½"	3½"	4½"	5"	6"	7"	8"
Socket, overall diameter.	15/16"	1⅛"	1⅜"	1⅝"	2 1/32"	2 5/16"	2 13/16"	3 7/16"	4"	5 1/16"	6⅛"	7⅛"
Capacity, gallons per ft. run	·005.	·008	·019	·034	·053	·076	·136	·213	·307	·545	·852	1·23
Weight per ft., steam, in lbs.	·703	·973	1·403	2·008	2·827	3·5	4·473	6·323	7·483	9·803	12·159	14·609
Weight per ft., water, in lbs.	·644	·896	1·268	1·833	2·598	3·237	4·128	5·779	6·834	8·945	11·091.	13·332.
Weight per ft., gas., in lbs.	·582	·818	1·165	1·653	2·367	2·973	3·786	5·338	6·309	8·253	10·232	12·305.
Thickness B.W.G., steam.	11.	10.	9.	8.	7.	6.	6.	5.	5.	5	5.	5
Thickness B.W.G., water	12.	11.	10.	9.	8.	7.	7.	6.	6.	6	6.	6.
Thickness B.W.G., gas.	13.	12.	11.	10.	9.	8.	8.	7.	7.	7.	7.	7.


PIPE & CHASE


LAGGED PIPE & CHASE

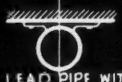
LEAD PIPE :

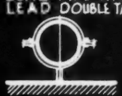
Internal diameter	1".	1¼"	1½"	1¾"	2"	2½"	3"	3½"	4"	4½"	5"	6"
External diameter	1¼"	1½"	1¾"	2"	2¼"	2¾"	3¼"	3¾"	4¼"	4¾"	5¼"	6¼"
Wall chase, width	4½"	4½"	4½"	4½"	4½"	5½"	5½"	6"	6½"	7"	8"	8"
Wall chase, depth	2¼"	2¼"	2¼"	3"	3"	4½"	4½"	4½"	4½"	5"	5½"	6½"
Floor hole, square	2½"	3"	3½"	3½"	3½"	4½"	5"	6"	7"	8"	8"	9"
L.C.C. requirements (1932 draft bye-laws)												
Weight per 3'0" length, in lbs. (2 pipe S.)	5.	6·25	7·5.	8·75	10·	12·5	15.	19·5	22·5	32	41	57.
Weight per 3'0" length, in lbs. (1 pipe S.)	5.	6·25	7·5	8·75	10·	12·5	15.	19·5	22·5	29	35·5	50.

NOTE : Pipes 3" in diam. or over are better fixed with double tacks & blocks or with holderbats

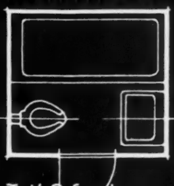
MINISTRY OF HEALTH Model specification for water pipes & fittings

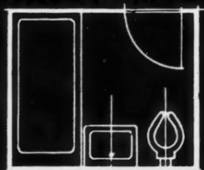
I. Lead supply pipe	⅜"	½"	¾"	1"	1¼"	1½"	2"
Weight of pipe required for head up to 110'0" (lbs per yard run.)	4.	6.	9.	12.	16	18	24
Weight of pipe required for head from 110'0"–250'0 " " "	5.	7.	12.	16.	21.	27.	33
Weight of pipe required for head of 250'0" & over " "	5½.	9.	16.	21.	28.	36	48.
II. Lead distributing pipe.							
Weight required for Cold water services (in lbs per yard.)	4.	5.	8.	11.	14.	18	24.
Weight required for Hot water services (in lbs per yard.)	4.	6.	9.	12.	16.	18	24.
Weight required flushing & warning pipes (in lbs per yard.)			5.	7.	9.	11.	14.

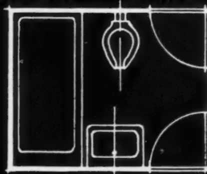

LEAD PIPE WITH LEAD DOUBLE TACKS

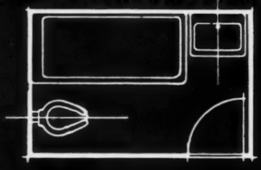

LEAD PIPE WITH HOLDERBAT.

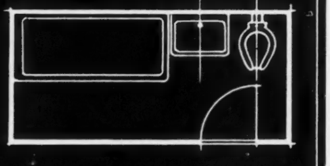
MINIMUM SIZES OF BATHROOMS OF VARIOUS ARRANGEMENTS.


TYPE 1.
5'6" × 5'0"


TYPE 2.
6'6" × 5'6"


TYPE 3.
7'0" × 5'6"


TYPE 4.
7'9" × 5'0"


TYPE 5.
9'9" × 4'6"

NOTE : All baths shown are 5'6" × 2'6".
All doors are shown 2'0" wide.
Windows are not located.
Pipe ducts are not included.

INFORMATION SHEET : SIZES OF PIPES AND PIPE CHASES : MINIMUM LAYOUTS OF BATHROOMS

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 15 •

PIPE CHASES, ETC.

•

THE publication, this week, of tabulated data regarding pipes and pipe chases, together with minimum dimensions of typical bathrooms, leaves only the subject of drain pipes, manholes, etc., to be dealt with to complete the set of Information Sheets covering lavatories and sanitation; the Sheet in question will appear next week.

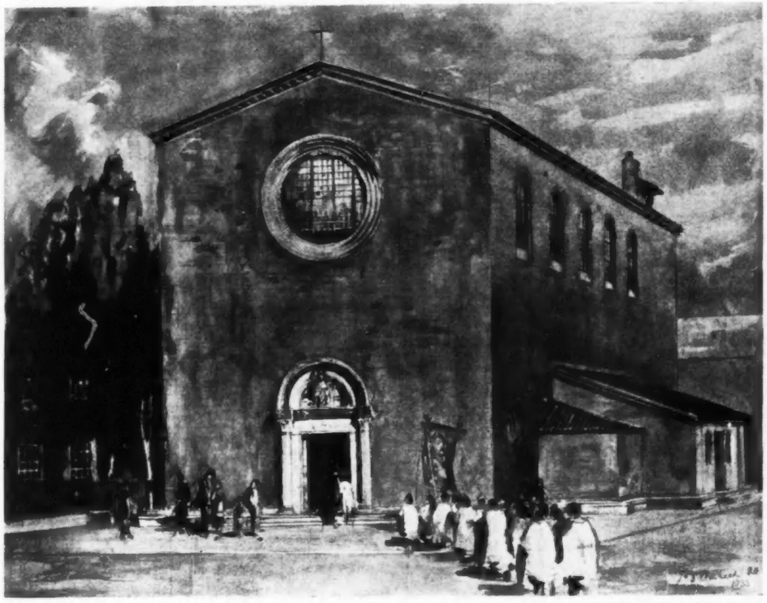
The present one contains extracts from the Ministry of Health Model Specification of Water Pipes and Fittings, and these are quoted by the permission of the Controller of H.M. Stationery Office.

The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.

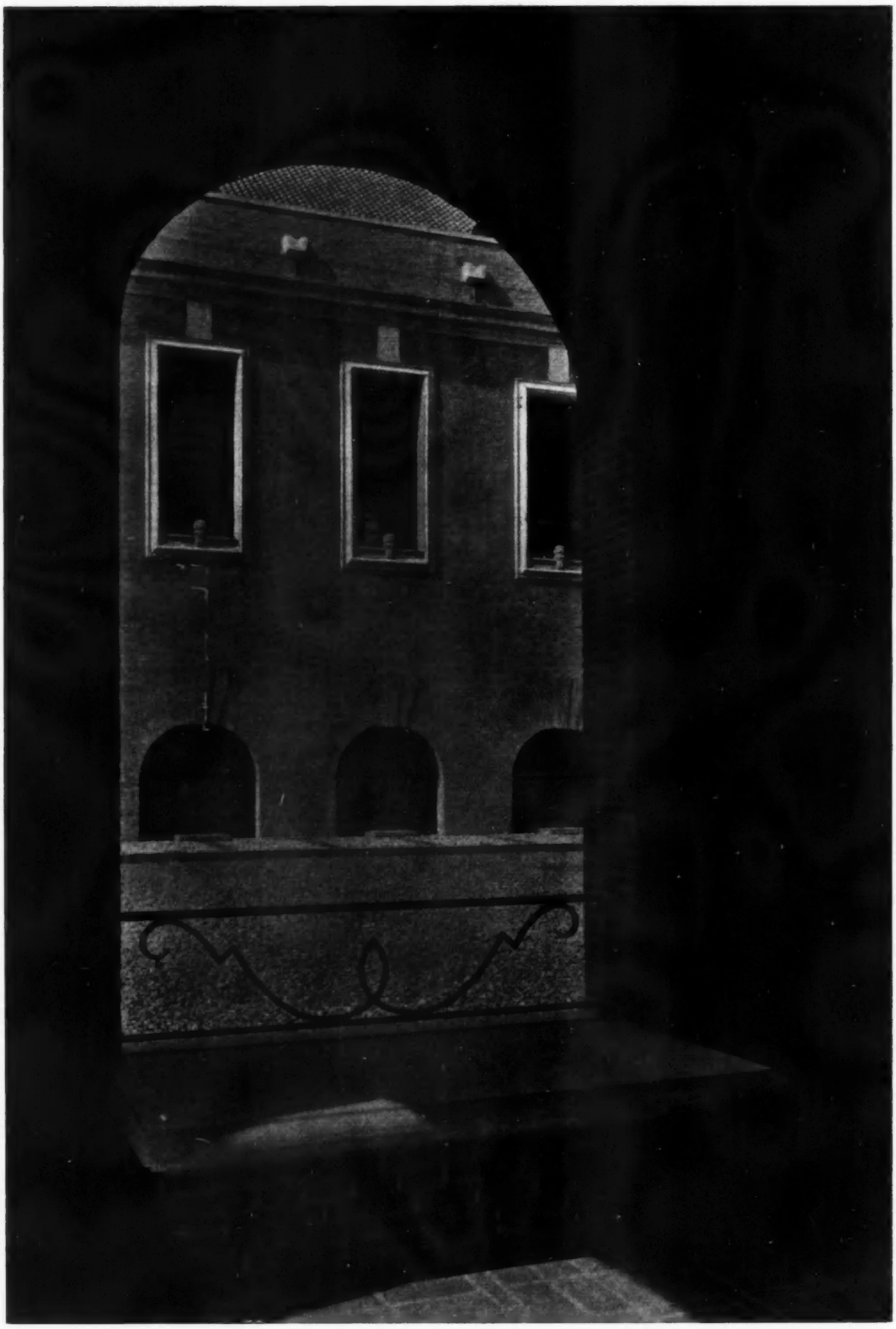
AT THE ROYAL ACADEMY

A CHURCH AT KENNINGTON



[*R. A. Ex. No.* 1497.

ON pages 585-8 of this issue will be found an illustrated article, " The Royal Academy : First Impressions," by Mr. H. S. Goodhart-Rendel. In the course of it, after touching upon the examples of ecclesiastical architecture hung this year, our contributor writes : " Most of the other designs for churches are in some form of Romanesque style, and vary in merit from one at Cairo, which is easily the worst, to one at Kennington, which is easily the best. The architects of the latter are Messrs. Adshead and Ramsey." This is the subject reproduced above. Its official title is " Church of St. Anselm, Kennington."



THE NEW MERCHANT TAYLORS' SCHOOL

A portion of the east elevation of the assembly hall, seen from the gatehouse of the new school buildings at Northwood, Middlesex. A detail drawing of this elevation appears in the centre pages of one of the supplements, and other illustrations, with notes, are given on pages 591 to 596 of this issue. The architects were Messrs. William G. Newton and Partners.

PLANNED TRANSPORT IN UNPLANNED LONDON

AFTER protracted parliamentary wrangling, the London Passenger Transport Bill has at length received the Royal Assent. On July 1 all forms of public conveyance within Greater London will be made over to the new Board set up by the Act to own, operate *and co-ordinate* them.

Apart from taxicabs, which ply on no fixed routes, the suburban services of the four main-line railways are the only exception to its monopoly. These, however, will be indirectly, but effectively, controlled by the Board through a Joint Standing Committee and the pooling of earnings. A long era of that " healthy competition " between vested interests, for which both shareholders and the travelling public paid the piper, is brought to a close. With it disappears the last pretext for further delay in the scandalously overdue electrification of those local lines (75 per cent. of them notoriously belong to the L.N.E.R.) on which steam traction is still suffered to pollute the atmosphere.

The creation of the L.P.T.B. should be welcomed as a belated step in the right direction. It is a beginning of planning, if of planning the wrong way round. Since there cannot be any isolated aspects or spheres of urban co-ordination, a London Planning Board ought clearly to have been established simultaneously with the L.P.T.B. Housing and transport are interdependent. It is as impossible to consider them separately as it is to consider the former divorced from those " laid on " essentials of modern life, water, sewerage, gas, electricity and telephones.

Hitherto, population and transport facilities have been allowed to outstrip one another alternately with results disastrous to the community. Thus the co-related and synchronized redistribution of each in accordance with a single master-plan has now become inevitable. *London must reorganize or disintegrate.*

The L.P.T.B. will possess no powers of autonomous initiative except on paper. It will have to waste the nation's time and its own money in seeking the authority of Parliament for every furlong of tube it may wish to build, though, paradoxically enough, it will be the only body on earth competent to judge what extensions are required. If the Board is to fulfil its function of co-ordination it must start by drawing up a comprehensive scheme for the connection and prolongation of existing routes, and the construction of supplementary ones. In the absence of a master-plan, governing both the rebuilding of London's built-up central areas and the development of its outer fringes, how can the Board hope to do more than superimpose a new, but purely provisional, railway map on the old?

The only answer to this question is to refuse to believe that the wholesale replanning of London is imperiously necessary, which no one qualified to express an opinion any longer denies. Yet the master-plan, when we get it—and we *shall* get it, and comparatively soon, because otherwise London will perish from self-congestion and auto-intoxication—is bound to provide for many new main thoroughfares and nodal traffic centres to relieve the obstruction of the derisively few we have. As a result, some of the Board's new tube lines will have to be scrapped, partly rebuilt, or reduplicated along different alignments, almost as soon as they are begun or opened.

Nor will the L.P.T.B., though owning every bus and tram, have any direct control over street widenings and improvements, for the necessity of which the L.C.C. and various other sovereignly independent county, borough and urban councils, to the number of over two hundred, severally remain the sole arbiters. The London and Home Counties Traffic Advisory Committee can, it is true, advise them as to what roads to build or widen for the common good, but even the Minister of Transport is powerless to compel them to act on its advice. Lord Ashfield has pointed out that there are two ways of dealing with surface transport; making the traffic fit the streets, and making the streets fit the traffic. Unplanned, opulent London makes shift heroically with the former; impoverished Berlin, which, being under a single administration, is fully planned for twice its existing population and ten times its present area, has been able to adopt the latter.

In the offices of the " B.V.G." the Berlin Traffic Authority on which our L.P.T.B. was largely modelled, hangs an enormous map of the small province that constitutes the municipal district of " Gross-Berlin." On it is indicated the position of every future building-site, street transport service, and open space in the immense circumference surrounding the already built-up central core. There is nothing sporadic or individualistically happy-go-lucky about the growth of this progressively expanding ring. It is controlled by disciplinarian time-schedules " according to plan." An official points to a particular segment, and explains that it is among the next to be taken in hand. In four years' time it will house 40,000 inhabitants. Half that number will be living on its now empty inner edge within eighteen months. By then the terminus of the nearest underground line is due to be carried forward into their midst; in another two-and-a-half years it will be extended a couple of stations farther afield, and so on.

The radiating underground lines and the housing zones they intersect are marked in correspondingly shaded gradations of different colours to represent the various stages of a 10–15 years' plan of mutually co-ordinated development which can be accelerated or slowed down in ratio with the actual increase of population.

Intelligent—or at all events intelligible—rumours are current that Lord Ashfield will be the L.P.T.B.'s first chairman. We earnestly hope they may prove true, for, in an address to the Royal Institution on March 24, Lord Ashfield clearly gave it as his opinion—and it is undoubtedly the most authoritative of any man living—that a Planning Board for London is as essential as a Transport Board :—

As a result of all this division of responsibility, the carrying out of street improvements based upon a co-ordinated and considered plan is rendered extremely difficult. . . . Co-ordination in this respect is just as important as co-ordination of transport facilities ; and the conclusion that seems irresistibly forced upon us is that any adequate measures will be impossible without some central co-ordinating authority. If the establishment of such an authority is the right solution for the problem of London passenger transport, then there seems no reason why it should not also be the solution of the problem of street improvements. . . . It may be said that the cost of such a programme will be so vast as to render its execution impossible, but I fancy we are apt to take too narrow a view of the problem of costs.

President of the new " MARS " Group : Wells Coates.

NOTES & TOPICS

THE " MARS " GROUP

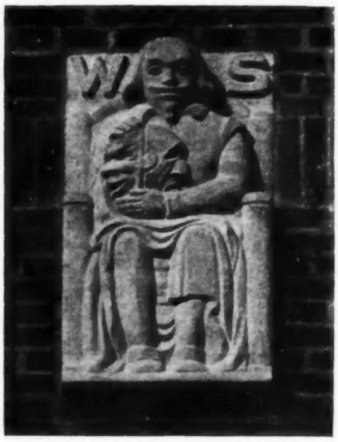
HOW it has happened that England should for so long have been unrepresented in the International Congresses for Modern Architecture is hard to understand. Whether this is another example of massive insularity, or of that flair for compromise which jibs at cool logic, or——

*

Well, it doesn't much matter now that we have overcome the disability.

*

We have become the Twentieth National Member of the Congresses, and I am glad that brave Mr. Wells Coates has undertaken the job of forming the English group, for, as I see it, there is a crying need for some very strong intellectual direction in this so difficult matter. Propaganda is not an end in itself without a steady pressure of disinterested research into practice and theory.



At Merchant Taylors' School. Shakespeare, carved in Clipsham stone over the centre window of the library, by Alan Durst.

*

I understand that, as the name implies, the Modern Architecture Research Group will act in this capacity, independently of official bodies, and gathering round it technicians and experts as they may contribute to the solution of contemporary architectural problems.

*

Groups have come and gone, but I feel quite certain that upon such a foundation, and drawing from the wider international sphere, the Modern Architecture Research Group should be of untold value to architecture in this country.

*

STATE HOTELS AND STATELY HOMES

I was talking this week to a man who had for some years organized industrial and educational schemes in prisons. He had loved his work, and he described it with the humbleness and sympathy and profound understanding of men that marked him as one of the salt of the earth.

*

He regretted that the conditions under which such work was carried on did not always make prisoners contented with industrial life when they were released. He said—and surely this is the bitterest comment ever made upon our casual and needless squalor—" It's so easy to make any prison superior to the slum conditions of England ! "

*

THE HERITAGE OF JUNK

Many of our worst slums are due to the social degeneration of permanent buildings. And this inflammable subject of permanence in architecture was discussed with acrimonious vigour at an Architecture Club meeting, last Thursday.

*

The debate on " Should buildings have an age limit ? " was opened by Mr. Julian Leathart, F.R.I.B.A. He referred to the heritage of permanent junk bequeathed to us by past generations who were so pleased with themselves that they imagined their ideas were valid for all time.

*

A short life and a stark one for buildings seemed to be the desire of the modernists who spoke.

THE ARCHITECTS' DIARY

Wednesday, May 3

*ROYAL ACADEMY, Burlington House, Piccadilly, W.*1. Summer Exhibition. Until August 7. 9 *a.m.* to 7 *p.m.*

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*1. Exhibition of photographs, etc., depicting the progress of air travel. Until May 25. 10 a.m. to 10 p.m. 10 *a.m.*

MANCHESTER BUILDING TRADES EXHIBITION, City Hall, Deansgate, Manchester. Until May 6.

THIRTY-TWO CLUB. At the Northumberland Rooms, Northumberland Avenue, W.C. Luncheon : " A National Housing Plan." By Sir Raymond Unwin, P.R.I.B.A.

INSTITUTION OF STRUCTURAL ENGINEERS. South Wales and Monmouthshire Branch. *At South Wales Institute of Engineers, Park Place, Cardiff.* Annual General Meeting. 7.15 *p.m.*

Thursday, May 4

LONDON SOCIETY. Visit to Goldsmiths' Hall, Cheapside, E.C.2. 3 *p.m.*

*SOCIETY OF ANTIQUARIES, Burlington House, W.*1. " Excavations at Chysanster, Cornwall." By Dr. H. O'N. Hecken, F.S.A. 8.30 *p.m.*

Saturday, May 6

Sunrise 5.24 a.m. Sunset 8.30 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS. Summer visit to Hampton Court Palace and the National Physical Labority.

LONDON AND MIDDLESEX ARCHÆOLOGICAL SOCIETY. Visit to Westminster School Buildings, conducted by Lawrence E. Tanner, M.A. *Meet at entrance to Little Dean's Yard.* 2.30 *p.m.*

Monday, May 8

*R.I.B.A., 9 Conduit Street, W.*1. Annual General Meeting. 8 *p.m.*

CHARTERED SURVEYORS' INSTITUTION, 12 *Gt. George Street, S.W.*1. " The Town and Country Planning Act, 1933." By I. G. Gibbon, C.B.E. (Principal Assistant Secretary, Ministry of Health). 8 *p.m.*

Tuesday, May 9

*POLYTECHNIC, Regent Street, W.*1. First of a series of lectures on " Acoustic Construction." By C. W. Glover, L.R.I.B.A. 7.30 *p.m.*

I thought that the suggestion of Mr. H. G. Strauss was wholly admirable : he thought that the laws relating to obscenity should be transferred from literature to building.

*

"But building," said Sir Christopher Wren, "certainly ought to have the Attribute of the Eternal. . . ."

*

To a stable society, controlled by an educated aristocracy, that applies. To a world covered with the unhealed sores of barbarous industrialism, the evils of permanence in building are miserably obvious.

*

THE REVOLUTIONARIES

Last Friday evening Mr. R. A. Duncan delivered to an audience composed of people who nearly all agreed with him, namely, the members of the Design and Industries Association, a passionate denunciation of the congested futility of modern civilization.

*

Mr. Darcy Braddell, who opened the discussion after the lecture by putting the case for an intellectual aristocracy, said that Mr. Duncan was preaching a crusade and was a hot gospeller. I found it difficult myself to discover (1) what was the crusade's objective, and (2) what the gospel was.

*

Maybe the earnest vigour of the gospeller overcrowded the great design he was trying to convey. I was frankly bewildered by the proliferation of ideas he exposed to view. The slides he showed represented a really lucid interlude : he told the story of that great book by Lisle March Phillipps, *The Works of Man*, in a brilliant selection of examples.

*

Nobody can complain today that the D.I.A. is dull when it arranges discussions like "Revolutions in Civilization." Dull is quite the wrong word.

*

POSTS AND THINGS

I was talking the other day to a member of a firm which makes and instals traffic signals, which are every day becoming more and more common objects in our streets.

*

As it is the recognized thing in this country that the manufacturer is always to blame, I made some suggestions about the general appearance of the signals. I asked what mental process brought it about that the light-boxes themselves should be, though by no means perfect in design, at least straightforward solutions of the problem and reasonably harmless in appearance ; while the standards to which they are generally fixed should be throw-backs to a half-caste culture—fruit and that.

*

The reply I got was illuminating and disappointing. It appears that it is the local authority in most cases which insists that the standards shall "harmonize" with the existing lamp-posts of the neighbourhood ! I was unable to find out how much extra is paid for this perpetuation of bestiality over the cost of a plain, well-proportioned post.

At Merchant Taylors' School. The Owl of Athene, another carving by Alan Durst (in brown York stone). It crowns the main south pediment of the hall.

*

It is, incidentally, interesting to see that the Trafalgar Square signals are very much better in design than many. The fact is, I suppose, that as there are to my knowledge in that square five different types of lamp-post, in varying degrees of vileness, an attempt at "harmony" by the local authority would be like putting a chameleon on a piece of tartan.

*

"THE ADVENTURE OF BUILDING"

Of the making of houses there is no end. Hence the new edition of *The Adventure of Building* (of which 50,000 copies have already been sold) in which, although only slight revisions have been made in the text, almost all the illustrations are new. The houses now illustrated are of a smaller size, ranging in cost from £350 upwards, the object, of course, being to demonstrate that architects should be employed for the very smallest type of domestic work.

*

The publisher has told me of his hope—which, in view of his past experience, is practically a certainty—that the various architectural societies, as well as individual architects, will continue to buy the booklet for widespread distribution. The charge made per copy is the almost nominal one of 2s. a dozen, post free. Enquiries should be addressed to the Manager, Architectural Press, 9 Queen Anne's Gate, Westminster, S.W.1.

ASTRAGAL

NEWS

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POINTS FROM THIS ISSUE

Without a master plan London will perish from self-congestion and auto-intoxication 579
Plaque of Gandhi removed from a London church 582
" It is to be feared that it is in no cautionary spirit that the Hanging Committee (of the Royal Academy) has presented to us much ' Tudor ' litter " 588
It is proposed to hold a camp for men members of this year's R.I.B.A. Conference at Cambridge 590
The one-pipe system is used in North America to an extent hardly realized 597
Rightly or wrongly the Building Centre Competition uses as a basis the smallest unit of cottage construction 600
When will manufacturers of standard windows give us a well-designed standard lever handle ? 603

●

THE MACKINTOSH EXHIBITION

Today, May 3, the C. R. Mackintosh Exhibition will be opened by Sir Robert Horne, Principal of the University of Glasgow, in the McLellan Galleries, Glasgow. A short inaugural address will be delivered by J. Jeffrey Waddell, I.A., F.S.A. (Scotland).

EXHIBITION OF BRITISH INDUSTRIAL ART

In the course of a letter dealing with the forthcoming Exhibition of British Industrial Art in Relation to the Home, Mr. Christopher Hussey, Chairman of the Executive Committee, writes :

The forthcoming exhibition is the first attempt in this country to reply to the modern industrial art exhibitions of Continental nations, one of which, the Swedish, made a profound impression when shown in London in 1931.

The exhibition is to be held at Dorland Hall, Regent Street, from June 20 to July 12. It is to represent the best and most progressive work of manufacturers and designers, selected by committees conversant with each particular trade. Exhibitors are responsible firms, designers, and federations of manufacturers and retailers, and exhibition is according to class of goods. Sales will be facilitated, but direct retail transactions are of course impossible. Great care is being taken to include exhibits at various prices so that a public of varied requirements may be attracted.

The exhibition aims at providing the public with the means for acquiring a contemporary standard of judgment in regard to the furnishing and equipment of their homes. It is believed that in the last two years very great progress has been made in bringing output up to date, but that, for lack of an exhibition of this nature, the public both at home and abroad is largely unaware of the excellence of modern British industrial art. It is the first exhibition in the history of British industry based on the selective principle.

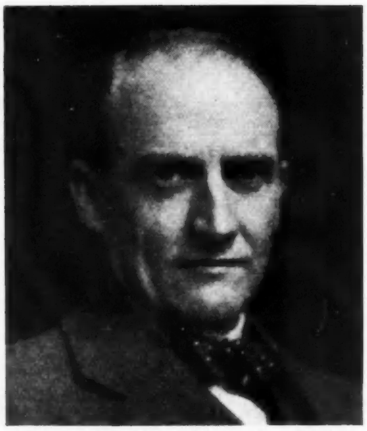
Recent contributors to the subscription list of the Special Committee for Public Relations of the Building Industries National Council are as follows : British Challenge Glazing Co., £5/5/0 ; Cement Marketing Co., Ltd., (2nd instalment of £500) £125/0/0 ; Midland Brick Association, £10/10/0 ; Leicestershire Brick Mfrs. Association, £10/10/0 ; South Eastern Federation of the Building and Engineering Brick Trade of England and Wales, £50/0/0. Subscriptions to the fund, which has now reached £2,632/5/10, should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

LIVERPOOL ARCHITECTURAL SOCIETY

Mr. Leonard Barnish, F.R.I.B.A., was elected president of the Liverpool Architectural Society and its representative on the R.I.B.A., for the second successive year at the Society's annual meeting on Wednesday last. Mr. Duncan Campbell, F.R.I.B.A., a former president, was elected vice-president. The other officers were elected as follows :—

Vice-president, Mr. H. A. Dod, F.R.I.B.A.; hon. secretary, Mr. J. S. Allen, A.R.I.B.A. ; hon. treasurer, Mr. E. J. Dod, A.R.I.B.A.; hon. librarian, Mr. E. H. Honeyburne, A.R.I.B.A. ; hon. auditors, Messrs. E. E. D. Smith, L.R.I.B.A., and James Grieve, A.R.I.B.A. Unofficial members of the Council : Professors Patrick Abercrombie, F.R.I.B.A., and L. B. Budden, F.R.I.B.A., and Messrs. G. W. Fraser, F.R.I.B.A., Ernest Gee, F.R.I.B.A., W. P. Horsburgh, F.R.I.B.A., L. H. Keay, F.R.I.B.A., D. G. McIntosh, W. Dougill, A.R.I.B.A., and H. S. Silcock, A.R.I.B.A.

The Society's membership now includes 75 fellows, 55 associates and 37 students.



Leonard Barnish, F.R.I.B.A., who has just been re-elected President of the Liverpool Architectural Society.

BRIGHTON EXHIBITION

Brighton's third annual Home and Building Exhibition was opened by the Mayor of Brighton (Councillor F. G. Beal, J.P.) at the Dome and Corn Exchange, yesterday.

TWO ARCHITECTURAL DISEASES

Mr. Robert Wilson, speaking at a dinner held last week to mark the inauguration of the Stirling Chapter of the Royal Incorporation of Architects in Scotland, said the architectural profession was suffering from two diseases, " speculative building bungalitis " and " official organisms." He singled out these two because he thought they in their official capacity could effect, if not a complete remedy, at least a substantial partial remedy. He did not cast any reflection on the official architect, but the amount of work that was placed in his hands was such that he could not give it the personal attention that all such work must have.

Mr. John Begg, F.R.I.B.A. (President of the R.I.A.S.), occupied the chair.

GANDHI PLAQUE REMOVED

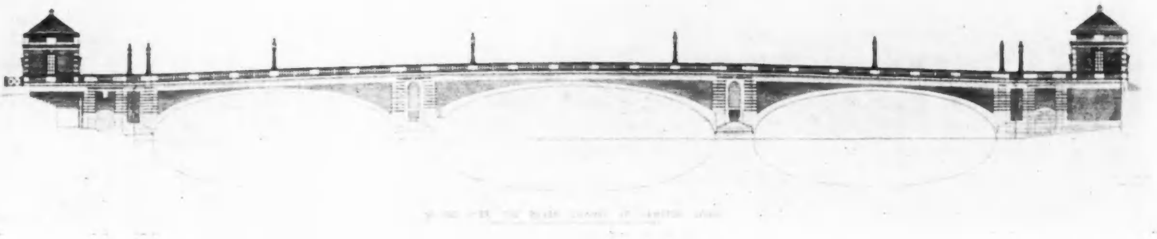
Following a local controversy, a plaque depicting Mr. Gandhi in Finchley (N.) Parish Church, has been removed by the Rector, the Rev. Stuart F. L. Bernays, and is now in his study. The plaque was illustrated on page 747 of our issue for December 7, 1932.

TOWN PLANNING IN THE U.S.S.R.

At a meeting held under the auspices of the Society for Cultural Relations between Great Britain and the U.S.S.R. at the Royal Society of Arts last week, Lord Marley gave an address on " Town Planning in the U.S.S.R."

The U.S.S.R., he said, had not yet developed its own form of architecture. What it had so far achieved was a great harmony of relation between the height of the houses and the width of the street. The building materials that had been used in most of the new towns he had visited were of a cheap variety. This was explained partly on the grounds of cost, and partly because planners were anxious not

AT THE ROYAL ACADEMY EXHIBITION



[R.A. Ex. No. 1387.

Bridge over the River Thames at Hampton Court: east elevation. By Sir Edwin L. Lutyens, R.A., P.I.A.A.S.

to put up too durable structures before the U.S.S.R. had evolved its own type of architecture to correspond with the new forms of life. The material used was calculated to last about thirty years or so.

THE PASSING OF THE ALHAMBRA THEATRE

Negotiations are almost completed for a scheme to demolish the Alhambra Theatre, Leicester Square, and to build in its place a gigantic Palace of Entertainment, at a cost of £700,000.

Sir Oswald Stoll, in a statement to *The Daily Mail*, said: There is every likelihood that the negotiations will be completed, and if the new building is erected according to the plans I have seen there is no doubt it will be the sensation of London.

Mr. E. A. Stone has prepared the plans for the new building, which, it is understood, will be called "The New Century." The basement of the new building, states Mr. Stone, is to be a stadium for boxing; the ground floor will be constructed as a Beer Garden, and decorated as a Tyrolean village; on the first floor a Flower Garden and Restaurant will be laid out; on the second floor will be the Restaurant of Nations; and half the roof will be taken up by the kitchens, and the other half will be constructed as a solarium where artificial sun-bathing will be available the whole year through.

ROYAL ACADEMY BANQUET

Sir William Llewellyn (P.R.A.) presided at the annual dinner of the Royal Academy, held on Saturday last at Burlington House.

The Duke of Gloucester, replying to the loyal toast, proposed by the President, said:—

You cannot have failed to notice, when travelling throughout England, that there is writ over the countryside a greater movement in the life of the people, an impulse to have a light, airy home and pleasant surroundings, something pleasant to look upon from the exterior. The interior must be made to match, for we have long, dark winter evenings, and I suggest that art, in whatever form we can afford it, is what we really want to make our home life attractive.

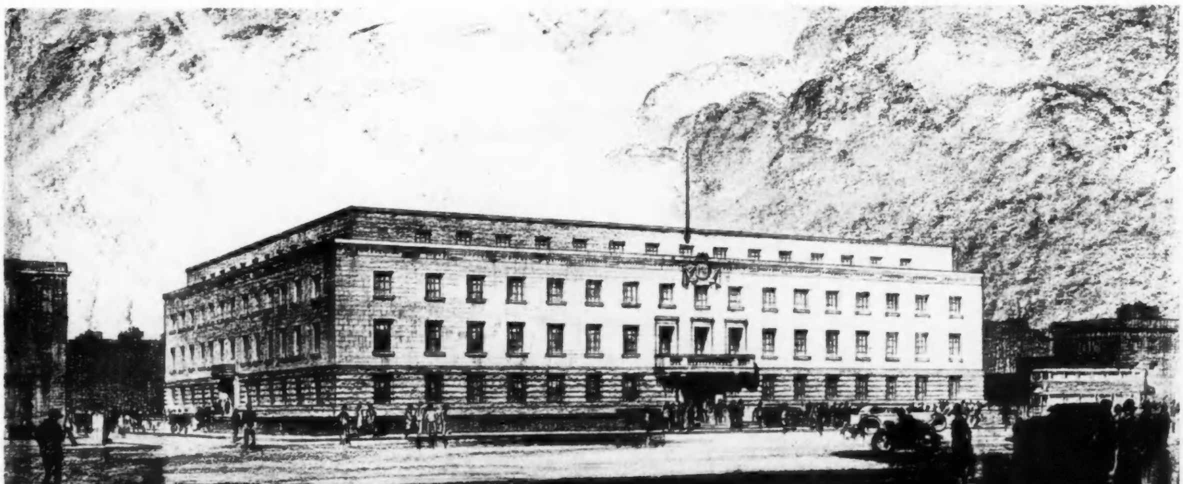
Sir William Llewellyn, responding to the toast of "The Royal Academy," said:—

At the present time, it is true that, in regard to the design and appearance of our products, our reputation with other countries does not stand as high as it should do. What is needed is closer co-operation between the artist, the manufacturer and the public.

A good deal can be done by exhibitions of the best work, and specially prepared work, to train the taste of the public, the trade-buyers and the manufacturers.

It is perhaps in the field of architecture and kindred matters that great public interest has recently displayed itself. This, I think, began with the campaign for the saving of Waterloo Bridge, a matter in which public opinion was particularly stirred. Happily the bridge is now safe from destruction, and is to be reconditioned and preserved for future generations.

With increasing public interest in the development of London, and increasing knowledge among the general public, endeavours are now being made to safeguard the future of our cities, so that interesting buildings of the past shall be preserved, and that new plannings and new buildings shall be worthy records of our time.



[R.A. Ex. No. 1397.

Southwark Municipal Offices. By C. Cowles-Voysey.

R. I. B. A.

EXHIBITION OF ARCHITECTS' WORK

An exhibition of sketches, etchings, oil and water-colour paintings executed by architects, will be held at the Institute from Friday next, May 5, until Monday, May 22. Many of the works exhibited will be for sale, and 25 per cent. of the proceeds will be given to the Architects' Unemployment Fund.

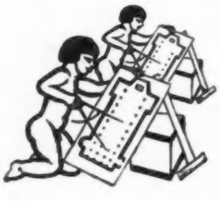
The exhibition will be open free to the public between the hours of 10 a.m. and 8 p.m. (Saturdays, 5 p.m.).

ELECTION OF STUDENTS

The following Probationers have been elected Students of the R.I.B.A.:

The Polytechnic, Regent Street, London: Messrs. J. G. Le Jeune and G. R. Penrose; Auckland University College: D. J. Bedford, G. A. Rix-Trott and C. Sanderson; Birmingham School of Architecture: F. H. Marvan and C. G. Percy; Architectural Association: H. S. Smith; Edinburgh College of Art: Alan Reiach; University College, London: F. A. Howard; Robert Gordon's Colleges, Aberdeen: A. Duncan; Armstrong College, Durham University: D. W. Dickenson; University of Cambridge: F. J. Cornell; Secured Approved Qualification in the Dominions: M. Poole and W. I. Willies.

COMPETITION



NEWS

THE BUILDING CENTRE COTTAGE COMPETITION

The result of this competition was announced in our last issue. A critique, together with the premiated and some of the other designs, will be found on pages 600-602.

MANCHESTER EXHIBITION HALL

The three premiated designs in the above competition are illustrated on pages 598-599.

ALUMINIUM FURNITURE

A competition for the design of seating furniture employing aluminium or aluminium alloys has been arranged by the International Aluminium Bureau. It is open to architects, craftsmen, designers, manufacturers or others interested, from all countries, and will be divided into two sections. The competitors in the first section must submit a finished specimen of one or more types of seating furniture. In addition, these competitors must furnish working drawings showing the exact details of construction, particularly emphasizing the methods of assembly. They must also give full particulars of the weight of the finished article, the weight of aluminium employed and the estimated selling price, basing the latter figure on an output of both 100 and 1,000 articles at a time.

Competitors in the second section will not be required to submit finished articles but only drawings and specimens. They must, however, submit the same information as competitors in the first section. Prizes totalling 6,000 Swiss francs will be awarded. Full particulars of the competition are obtainable from the British Aluminium Co., Ltd., Adelaide House, King William Street, E.C.4.

Reginald H. Uren, A.N.Z.I.A. (qualified and awaiting election as A R.I.B.A.) the author of the winning design in the competition for an exhibition hall, organized by the promoters of the Manchester Building Trades Exhibition.

N. E. Leeson, the author of the design awarded first place in the Building Centre Cottage Competition. See page 600

EXTENSIONS TO BELFAST SANATORIUM

The Belfast Corporation Tuberculosis Committee, subject to the approval of the City Council, are to invite designs from architects resident in Northern Ireland for the Extension to the Municipal Sanatorium and Municipal Hospital for Tubercular Children.

Competitions Open

May 8. — Proposed Burgh Chambers, Municipal Offices and Public Baths for the Town Council of the Burgh of Prestwick. Premiums: £200, £100 and £50. Designs to be submitted to the Town Clerk not later than 12 noon on May 8. The period for applications for conditions, etc., has now closed. Full particulars were published in *A.J.* for March 15.

May 30.—Sending-in Day. Royal Society of Arts Competitions for Industrial Designs. Applications for entry forms, instructions, etc., must be sent to the Secretary of the Society, at John Street, Adelphi, W.C., before May 8.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

June 3.—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums: £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

September 21.—Proposed Town Hall for the Borough of Hornsey. Open to architects of British nationality. Assessor: C. Cowles-Voysey, F.R.I.B.A. Premiums: £350, £250 and £150, for the designs placed first, second and third, respectively. Applications for conditions, etc., should be made to E. B. Croasdell, Town Clerk, Town Hall, Highgate, N.16. Deposit £1 1s., returnable on receipt of a bona-fide design or return of the conditions within four weeks before the date for submitting designs.

Building Work at Weymouth

The Prince of Wales will open the new pier and harbour scheme, constructed at Weymouth at a cost of £150,000, on July 13.

Architect and Engineer

At a recent meeting of the Junior Institution of Engineers a paper was read by Mr. J. R. Leathart, F.R.I.B.A., on "The Foundations of Architectural Design." Discussing the work of the architect and the engineer, he said that it was an almost invariable paradox that the work of a trained architect tends towards a simple and orderly arrangement of engineering units in decorative treatment, whereas an engineer almost inevitably produces a riotous architectural veneer to the structure if left with a free hand.

ON THE AIR

On Tuesday next, May 9, the fourth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Mr. Francis Meynell, whose subject will be "The Printed Word."

THE ROYAL ACADEMY

FIRST IMPRESSIONS

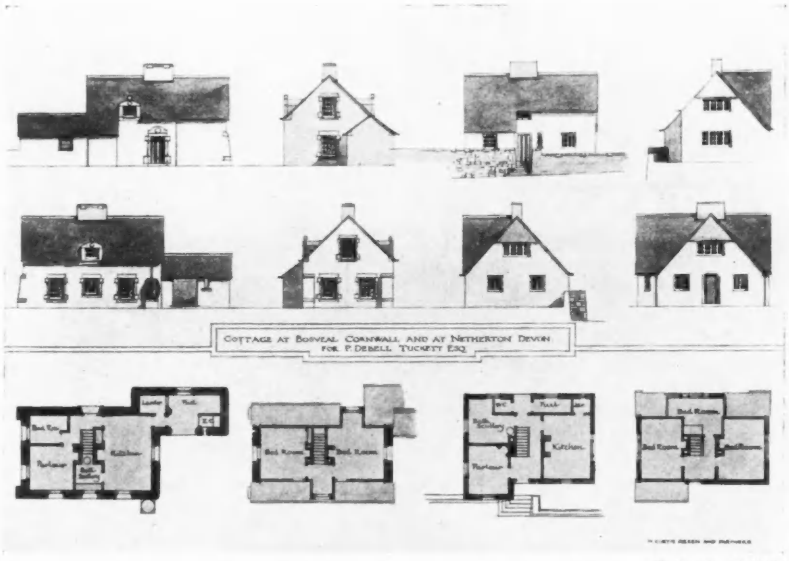
[*BY H. S. GOODHART-RENDEL*]

IT is impossible to imagine a more thankless task than must be that of selecting and hanging the architectural drawings exhibited annually at the Royal Academy. Various obstacles, apparently insuperable, prevent any proper exhibition of architecture at that institution, in spite of honest attempts at reform that, from time to time, have been made by its authorities. In consequence, the unfortunate hanging committee must cover the walls, as agreeably as it can, with a mosaic of those sketchy and uninformative drawings that experience has encouraged architects to submit; drawings from which the quality of the design represented can seldom be gauged and still more seldom seems to be taken into account.

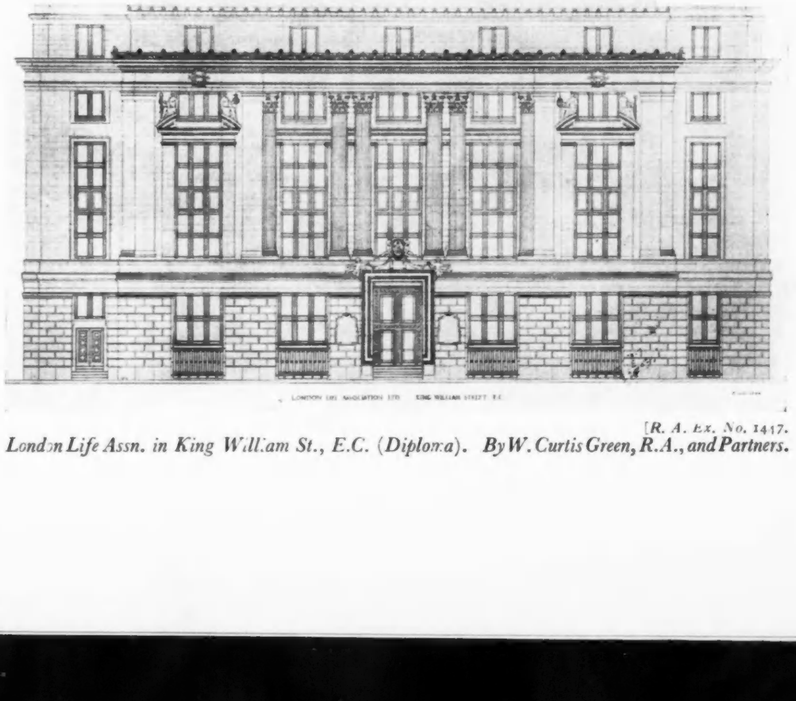
Raking over the scrap-heap which is the show this year, it is not hard to discover jewels. Mr. Curtis Green's diploma work, a beautiful elevation in outline of his London Life Association building (1447) is an ideal exhibit, and no better method of presenting domestic architecture can be imagined than the plans and elevations he shews of a Surrey house (1418) and some charming cottages in the West Country (1419). Sir Edwin Lutyens, also, has sent complete and straightforward drawings (1382, 1387, 1399) of his bridge at Hampton Court, a structure far from straightforward in itself, but, as a piece of make-believe, very skilful and pretty. Had Waterloo Bridge been rebuilt by Messrs. Rendel, Palmer, and Tritton, it would have been charmingly trimmed by Sir Giles Scott as three drawings (1388, 1393, 1394) here testify. No decorative elegance, however, could have reconciled any thinking critic to the discord between the arches over the water and the flat girder over the roadway. Wall-space has most unaccountably been granted to another proposal for this rebuilding in which Rennie's columns reappear in groups of three, making an architectural curiosity of the first order (1411). Mr. Maxwell Ayrton's bridge at Twickenham (1410) is not easy to visualize from the one elevation shewn, in which some curious shapes lack whatever significance they perhaps may have when seen "in the round."

Among the designs for municipal buildings no elevation is better than that with which Mr. Cowles-Voysey won the Southwark competition (1397) and none is worse than an unsuccessful design submitted for Norwich, shewn in two superfluous drawings (1360, 1361) occupying space to which their quality gives them no shadow of a claim. Messrs. James and Pierce's design selected for this town has an air perhaps unduly Swedish, but is agreeably sane and homogeneous (1402). Mr. Hepworth's Municipal Offices at Walthamstow (1403) are rather coyly presented, exciting a desire to know more of what promises to be an interesting composition. Sir Herbert Baker's Government buildings at Pretoria reappear, as his diploma work, in a romantic drawing (1457), that well conveys the emotional effect attempted in the architecture.

Of public buildings not municipal none in the room can rival the proposed completion of Mr. Greenslade's National Welsh Library by Messrs. Adams, Holden, and Pearson (1513). Old and new are here combined into a harmonious and magnificent group. The library of the new Geological Museum (1405) by Mr. Markham of the Office of Works looks a more agreeable room than was to be expected in so very routineer a building. Sir Edwin Cooper shews his usual competence in the splendiferous boardroom for the Port of London Authority (1363). Sir Edwin Cooper's other two exhibits are the medical school of St. Mary's Hospital (1370) and the National Provincial Bank (1439). In the latter he triumphs in the rôle of *ultimus Romanorum*, for, surely, never again will commercial pride demand so much architecture and so little window space. In its pompous kind this design is excellently and consistently worked out; so consistently that



[R. A. Ex. No. 1419.
Cottages : Bosveal, Cornwall, and Netherton, Devon. By W. Curtis Green, R.A., and Partners.



[R. A. Ex. No. 1417.
London Life Assn. in King William St., E.C. (Diploma). By W. Curtis Green, R.A., and Partners.

ARCHITECTURE AT

we are even beguiled from laughing at female figures personifying the higher and the lower mathematics. St. Mary's Medical School is simpler and no less capably handled.

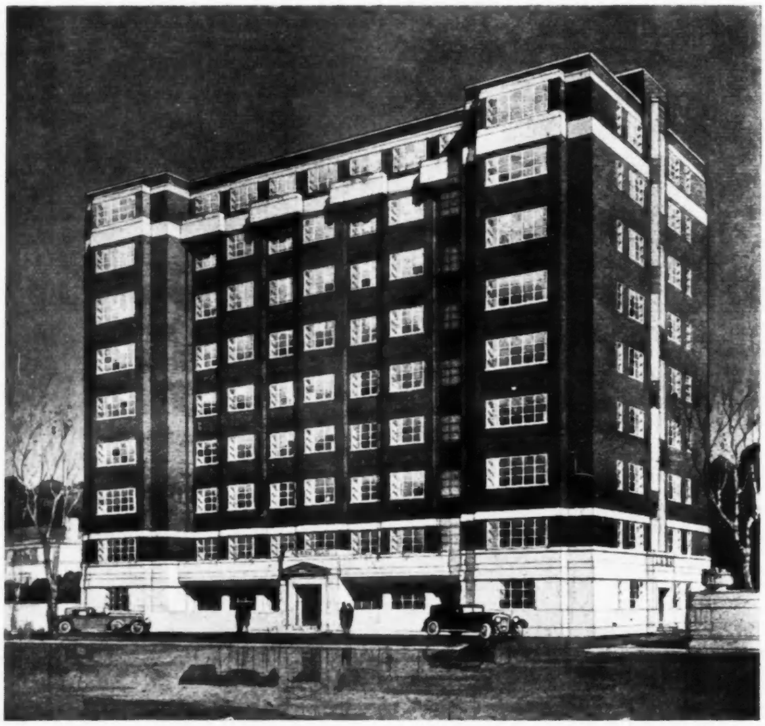
Other hospital buildings of importance are shewn by Messrs. Burnet, Tait, and Lorne (1359); Messrs. Hall, Easton, and Robertson (1369), and Mr. John Denman. Mr. Denman's model (1563) of the Sussex Eye Hospital at Brighton admirably shews an admirable design; Messrs. Burnet, Tait, and Lorne's small bird's-eye view tells very little about the Fever Hospital at Paisley.

A small elevation of Mr. Emberton's new exhibition hall at Olympia (1414) is hung so as to be decipherable only by the long-sighted. It really sometimes appears as though inconveniently stimulating designs were inevitably, if unconsciously, relegated to inconspicuous positions. The cleverest drawing in the present show, for instance, has been hung upon the pedestal of one of the models. It is a pencil sketch by Mr. Walcot of the charming new front he is putting upon No. 61 St. James's Street (1568). Again, no small house in the room shews such sensitive characterization as Messrs. Adshead and Ramsey's (1421), a tiny drawing of which can just be described below the cornice on the long wall. Upon the pedestal of another model is misplaced a delightful church interior (1552), designed by Messrs. Travers and Grant for Streatham. This clever compromise between mediævalism and protestantism is infinitely more intelligent and interesting than most of the ecclesiastical architecture exhibited.

Mr. Palmer Jones's design for Guildford cathedral (1502-4), for example, wastes a great deal of wall-space to no purpose except, perhaps, that of serving as a foil to the skilful and delicate design of Mr. Maufe, accepted for execution (1488, 1494, 1495). If the present generation believes that mediæval forms of violently different scales can be jumbled together as Mr. Palmer Jones has done, it is not surprising that the Gothic Revival has come to be undervalued. Mr. Harold Gibbons's sketch design for Guildford (1533) is the work of one who knows what Gothic is.

Most of the other designs for churches are in some form of Romanesque style, and vary in merit from one at Cairo (1477), which is easily the worst, to one at Kennington (1497), which is easily the best. The architects of the latter are Messrs. Adshead and Ramsey. A sketch for a cathedral by Mr J. H. Sellers (1471) secures all the essential qualities in Byzantine composition that are generally missed by less experienced artists.

What is now commonly and loosely described as "Housing" is extremely well represented in blocks by Mr. de Soissons (1365, 1448), and by Messrs. Mitchell and Bridgwater (1416).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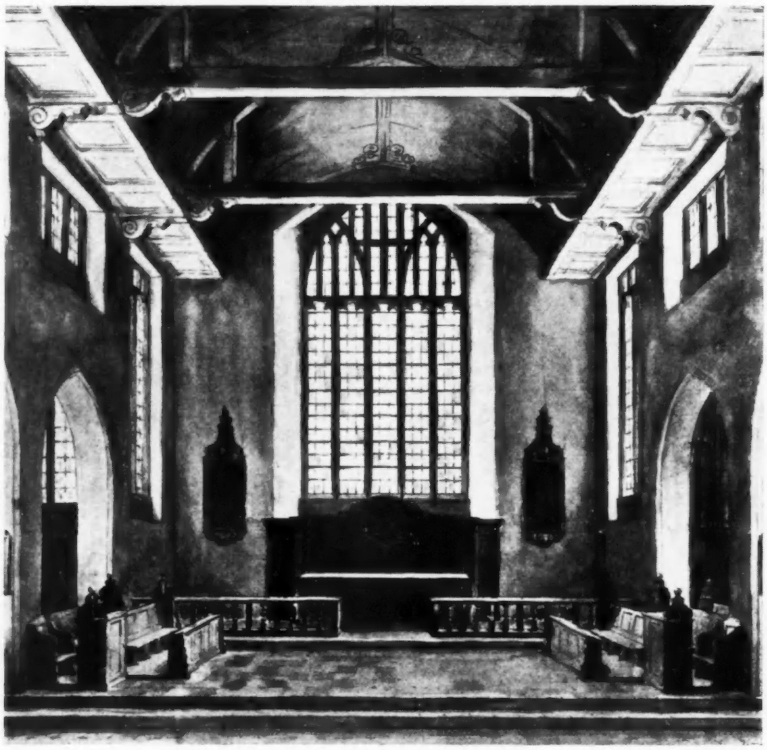
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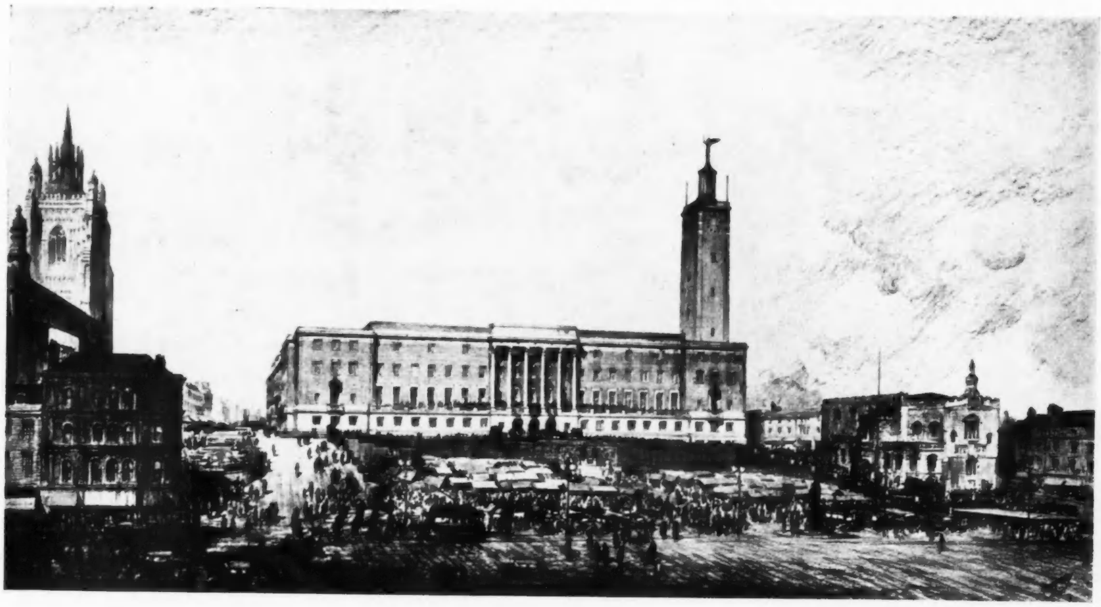
[R.A. Ex. No. 1552.

A higher type of collective dwelling is typified by Messrs. Maurice Webb and Dawson's excellent flats (1375) in St. John's Wood. The Lady Hardinge Serai (1528), by Mr. A. Shoosmith, may be mentioned as well in this category as in any other; it is of agreeable and characteristic design.

It is to be feared that it is in no cautionary spirit that the Hanging Committee has presented to us much "Tudor" litter of the kind that accumulates round suburban golf courses. Of cottage design at its best, Mr. Keen

THE ROYAL ACADEMY, 1933



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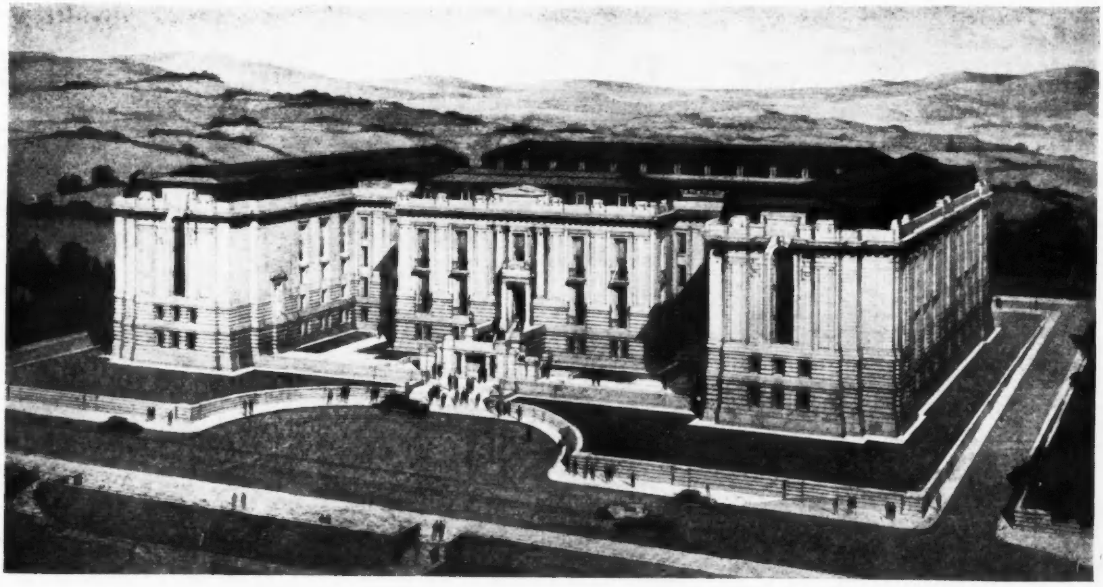

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[R.A. Ex. No. 1513

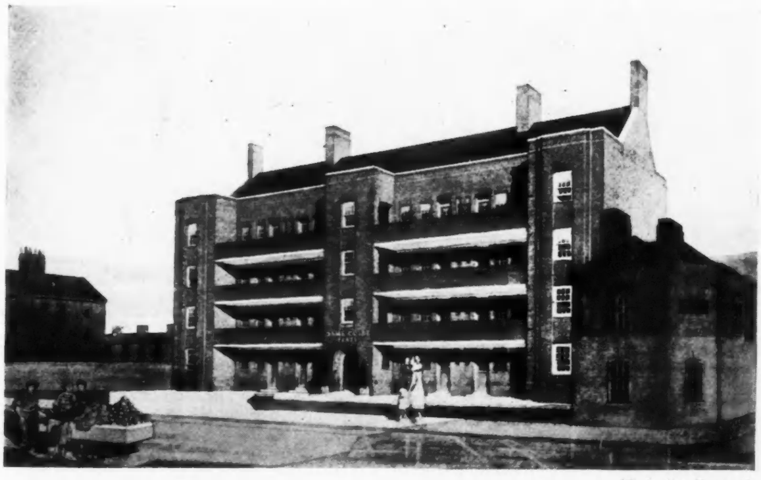
1. *Abbey Flats, Abbey Rd., St. John's Wood. By Maurice E. Webb and H. A. Dawson.*

2. *Church of the Holy Redeemer, Streatham Vale, S.W.: interior looking East. By Martin Travers and T. F. W. Grant.*

3. *Municipal Buildings, Norwich. By C. H. James and S. Rowland Pierce.*

4. *Proposed Completion of the National Library of Wales, Aberystwyth: adapted from the design of Sidney K. Greenslade. By Adams, Holden and Pearson.*

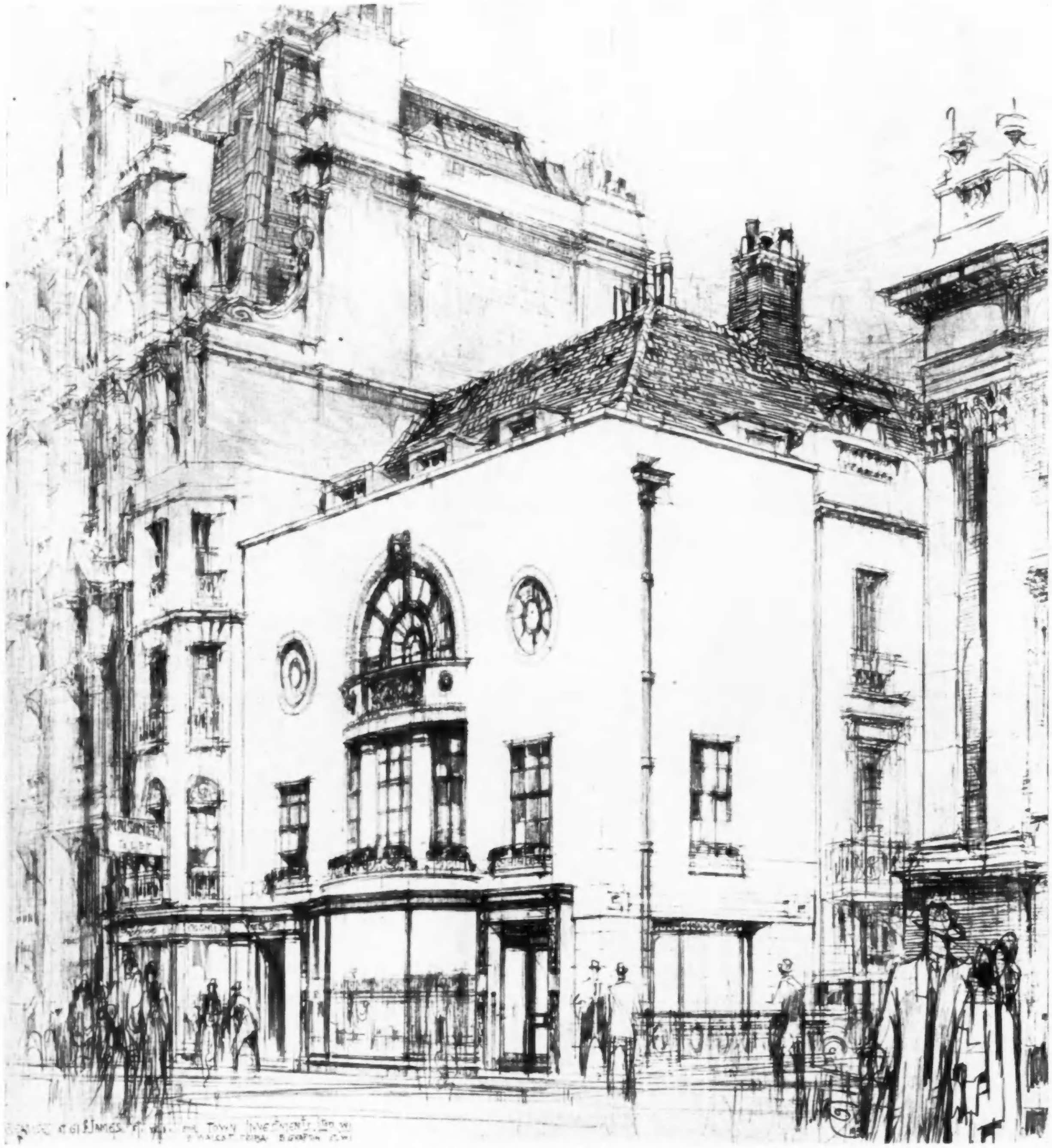
5. *Frances Gray House, Stepney, E. By Mitchell and Bridgwater.*



5.

[R.A. Ex. No. 1416

AT THE ROYAL ACADEMY



New Premises, 61 St. James's Street, S.W. By William Walcot. [*R.A. Ex. No.* 1568

sends an example from Oxted (1456), and in a house near Esher (1354) Messrs. Baillie Scott and Beresford tell an oft-told fairy tale with charm as great as ever. Models such as these, however, are not nearly *poivré* enough for the dwarf-and-goblin homelet of the tired business man, in which every rural characteristic must be exaggerated into violent oddity. From many disagreeable examples of this kind we may turn with infinite relief to the pleasant drawings of Mr. Hamp's Headington Manor Farm (1404), Mr. Rea's house at Brixham (1467), and Mr. Hyam's house at Looe (1538). In a more sedate style there is an excellent house in Sussex by Mr. Guy Dawber (1482), and another at Totteridge (1463), very sensibly presented by Mr. Hepworth.

It would obviously be unfair to regard this motley exhibition as representative of British architecture today, since the inducements to submit designs for inclusion in it are not sufficient to elicit more than a small proportion of the best work done in the country. It is, however, nearly typical enough of our too prevalent weaknesses for Mr. Wornum's design for the new R.I.B.A. headquarters (1378) to shine forth as a beacon of hope for a future very different from the present. In its revised form this design is entirely adequate to its noble purpose, and must surely be regarded with great satisfaction, even by those whose first approval was qualified by doubts.

LETTERS *FROM* READERS

MAURICE E. WEBB, F.R.I.B.A.
(Chairman, Architects' Unemployment Committee)
JOHN J. BLOWER
ALFRED J. SMITH
HAROLD A. DOD, F.R.I.B.A.
PETER BURTON
R. V. R. SMITH

Architects and Unemployment

SIR,—May I make use of your columns to call the attention of architects, particularly those who are in salaried positions, to the fact that there is a scheme in the architectural profession for insuring against periods of unemployment. This scheme was started by the Association of Architects, Surveyors and Technical Assistants in 1925, and the benefits are available for their members for a subscription of 12s. a year.

Those of us who have been working on the Unemployment Committee for the past year, and have seen the hardship caused to so many members of our profession through sudden loss of work, feel very strongly that if a similar emergency were to arise we should be prepared for it in some way. As the A.A.S.T.A. Unemployment Fund offers a certain measure of protection against unemployment, we consider it advisable that all salaried men who are eligible to join this scheme should know of it. An additional advantage of membership is that contributors to the Fund who have been insured under the National Insurance Acts can draw State unemployment pay at the offices of the A.A.S.T.A. instead of at a Labour Exchange.

Full particulars with regard to membership of the Association and of their Unemployment Fund may be obtained from the Secretary, A.A.S.T.A., 26, Buckingham Gate, London, S.W.1.

MAURICE E. WEBB

Suburban Housing

SIR,—I should like to take this opportunity of thanking you for the useful Information Sheets presented with the recent numbers of THE ARCHITECTS' JOURNAL.

I am venturing to send you a copy of one from my own files dealing with the variety of effects that may be obtained by varying small details in suburban domestic work, always bearing in mind the fact that I have deliberately planned these details in accord with the characteristics of the neighbourhoods for which the houses are designed.

I would like to point out that this style of house is favoured throughout the length and breadth of our island, and that it seems to me to be desirable to cater for everybody's likes and dislikes nowadays as it is a democratic age, which is what I always say, so perhaps if you published my Information Sheet it might help your readers to a broader outlook.

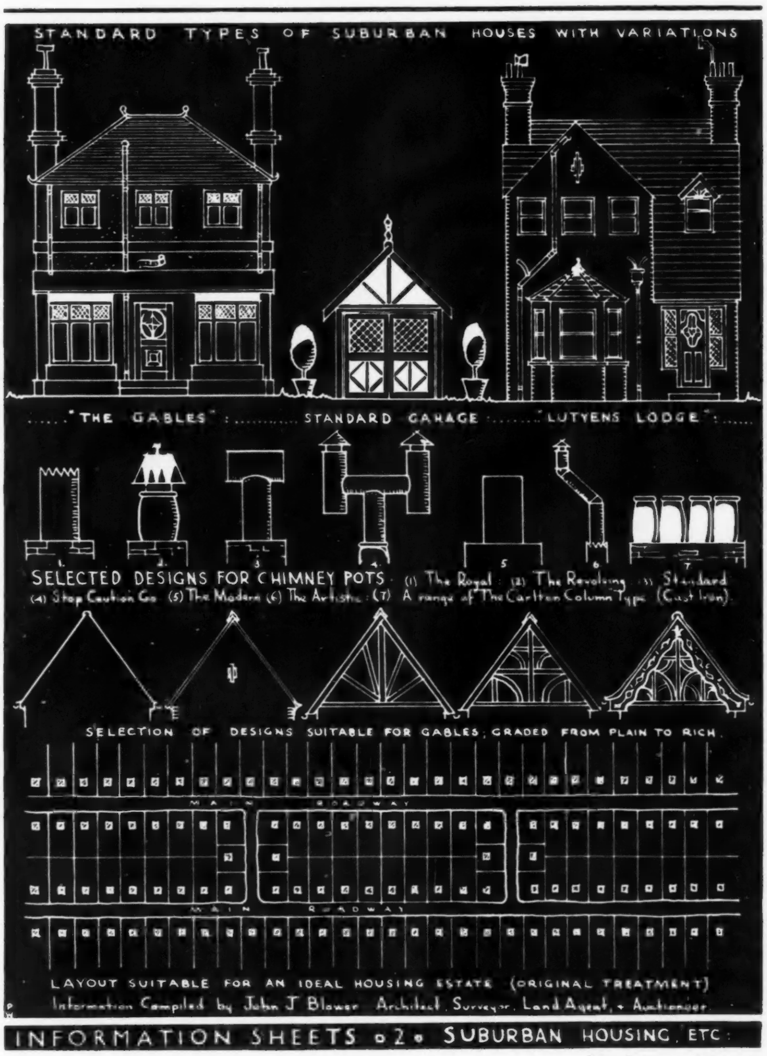
JOHN J. BLOWER

What is to be Done About This?

SIR,—The correspondence which has appeared in your JOURNAL recently regarding the thousands of houses which have sprung up in the suburbs since the war seems rather unfair to me. I hold no brief for the builders of these houses, but in justice to them, one must admit that they have provided thousands of people of moderate means with decent living accommodation. Since the majority of these builders have not had an architectural education, it is too much to expect them to appreciate the niceties of architecture, and, therefore, unjust to pour forth vitriolic comments on their work. They have at least satisfied a national want, and for that reason alone they are entitled to appreciation.

In Mr. Smarterly's letter he states that capital is easy to obtain. In that case, why haven't the architects taken advantage of it and constructed attractive houses themselves? No man is justified in belittling the efforts of another if he cannot, or will not, do better.

Again, it is not a "queer human psychology that makes people like these nasty villas," as Mr. Smarterly maintains, but the result of having nothing better to choose from within their means.


STANDARD TYPES OF SUBURBAN HOUSES WITH VARIATIONS
"THE GABLES"
STANDARD GARAGE
"LUTYENS LODGE"
1. 2. 3 4. 5 6. 7.
SELECTED DESIGNS FOR CHIMNEY POTS (1) The Royal (2) The Revolving (3) Standard (4) Stop Caution Go (5) The Modern (6) The Artistic (7) A range of The Carlton Column Type (Cast Iron).
SELECTION OF DESIGNS SUITABLE FOR GABLES, GRADED FROM PLAIN TO RICH
MAIN ROADWAY
MAIN ROADWAY
LAYOUT SUITABLE FOR AN IDEAL HOUSING ESTATE (ORIGINAL TREATMENT)
Information Compiled by John J Blower Architect, Surveyor, Land Agent, + Auctioneer
INFORMATION SHEETS ·2· SUBURBAN HOUSING, ETC:

[*See letter on this page.*

Let architects build something better, that can be purchased on the same moderate terms. Then I, for one, will forsake my flat and give thanks unto them. ALFD. J. SMITH

SIR,—Concerning "What is to be done about This?" May I make an unobtrusive suggestion? I feel that your most excellent JOURNAL preaches too much to the converted. Could any scheme be devised by means of which it could at least be in the hands of members of building committees of town, county and district councils? I am sure that it would have an educative effect upon them, and they would, possibly rather gradually, become interested and more critical.

I feel convinced that some good could be done in this way. Having taken to architecture late in life, I realize the complete change that has come over my own outlook, and I know that my own relations have become quite "educated," largely by means of your JOURNAL.

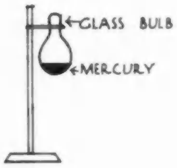
H. M.

[*It is often felt by readers that this* JOURNAL *is read exclusively by architects. We are glad of the opportunity of stating that this is far from being the case. In point of fact it is seen by a wide circle of lay readers. The scheme suggested by H. M. for circularizing the building committees of town councils, etc., has already been carried out.*—ED., *A.J.*]

A Novel Water Softener

SIR,—I was shown yesterday in a domestic water storage tank, in a hard-water district, what appeared to be a novel water softener.

It consisted of a glass bulb, about the size of the ordinary electric light bulb, containing a small quantity of mercury. This bulb floated in the water and was kept in position by a small vertical brass rod set in a glass base about 4 ins. square, somewhat as sketch :—



There was no name cast on the base, only the words "Scale buoy." Do any of your readers know anything of this apparatus and of its efficiency?

HAROLD A. DOD

The R.I.B.A. Conference

SIR,—It is proposed to hold a camp for men members of the Conference, should they prefer this method of spending the few days in Cambridge to that of staying at a hotel or in rooms.

Apart from the fact that a considerable saving would be incurred by this method, it is also pointed out that by mingling in camp an excellent opportunity is given for forming acquaintances and friendships.

The arrangements for the camp, which will last from Wednesday, June 21, till Saturday, June 24, are very attractive, full particulars being obtainable by writing to Peter Burton, c/o H. C. Hughes, M.A., F.R.I.B.A., Tunwells Court, Trumpington Street, Cambridge.

PETER BURTON

Architecture and the Public

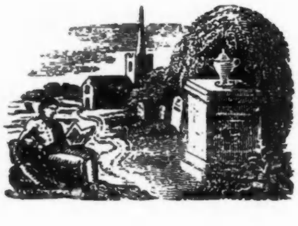
SIR,—It is a commonplace that no art can really flourish without public recognition and patronage, but it is most notoriously true of architecture.

The allied societies should do a great deal more towards the spreading of architectural propaganda among the laity.

On how many newspaper staffs are found, besides the musical, literary and dramatic critics, an architectural critic?

It is essential that we stimulate among the laity an intelligent interest in criticism of architecture.

R. V. R. SMITH



Welsh Architects' Visit

A large party of architects and students visited the new buildings which are being erected for Messrs. Spillers, Ltd., Roath Dock, Cardiff, on Thursday last. The visit was arranged under the auspices of the South Wales Institute of Architects (Central Branch) and the Welsh School of Architecture, Technical College, Cardiff.

The visitors were met on the site by Mr. J. Bradshaw, Messrs. Spillers' clerk of works, Mr. F. Goddard, the representative of Messrs. John Clarke and Son, of Liverpool (the architects), and Mr. H. R. Evans, the representative of Dr. Oscar Faber, the consulting engineer.

Apart from the question of financial economy, many interesting methods of construction were examined, especially that adopted in the building of the reinforced concrete silo, in which a system of continuously moving shuttering was used, the workmen keeping pace with this in placing the concrete with its steel reinforcement. By means of this system a height of 100 ft. was carried out in 16½ days.

At the close of the visit Mr. Percy Thomas, O.B.E., F.R.I.B.A., chairman of the Central Branch of the South Wales Institute of Architects, expressed the thanks of the party to all who had contributed to its success.

The Housing Bill

The Minister of Health conferred last week with representatives of the National Federation of House Builders, who were introduced by Messrs. R. W. Jennings, the President of the Federation, F. Williams, Vice-President, F. Lord, and N. McKellen (Secretary).

The object of the conference was to enable the Minister to discuss with the Federation the steps to be taken to give effect to the proposals for the building of houses to let, contained in the Housing Bill now before Parliament, as soon as the Bill is passed into law.

The Minister suggested that it would be helpful if the Federation would arrange to hold local conferences throughout the country with the object of making the proposals widely known to builders.

The representatives of the Federation assured the Minister of their confidence that they would be able, in the absence of subsidised competition, to provide houses on a large scale.

Reconstruction of Soviet Towns

An All-Union Conference on the reconstruction of Soviet towns has recently been held in Moscow. After the plenary session on the first day the work of the Conference split up into sections—namely, planning, road and transport, sanitation, housing, power, and administration and finance.

At the plenary session the question was discussed of the lack of co-ordination between the relative allocations for housing and municipal construction, and the insufficient attention paid by industry to the production of equipment for municipal services. The question of finance for the Second Five-Year Plan was raised, also that of local building materials, what and how much each locality could supply, and the weak spots to which State industry would have to turn its attention. Some of the speakers emphasized the need for more scientific research work in municipal construction.

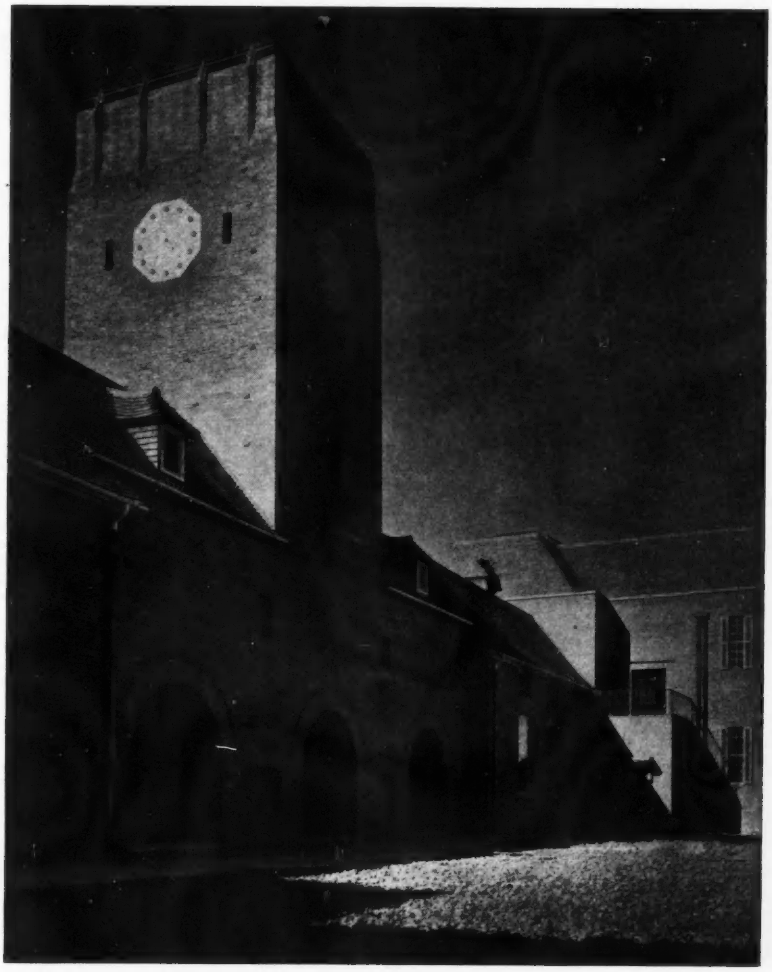
An exhibition was opened in connection with this Conference showing the achievements made in housing, municipal enterprises, replanning of the bigger towns in the Union, and the work done in the planning of new towns.

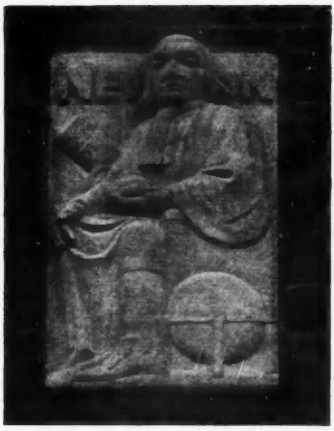
MERCHANT TAYLORS' SCHOOL, NORTHWOOD

The building is carried out in mottled Amersham bricks, with a tiled roof and dressings of real and artificial stone, the whole being in varying tones of brown. The metal grilles, and the wooden shutters in the classrooms, are painted green on silver.

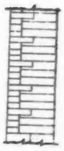
On the right is given a view of the tower at the west end of the main quad, as erected, while below it is a photograph of a model of the building. It will be noted that the tower was built finally with a batter, not shown in the model, a refinement which adds greatly to its appearance. The upper part of the tower is built of purpose-made bricks, with projecting ribs, and, below, a pattern is formed by means of projecting headers.

The clock faces are of stone, with circles of glass to mark the hours.

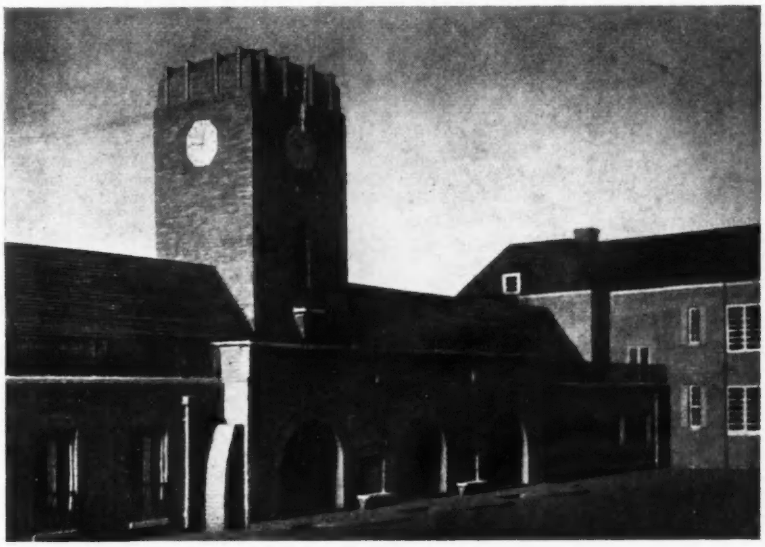




Newton, one of the seven stones, carved by Alan Durst, above the library window-arches. The reference is to Isaac, an earlier bearer of the present architect's distinguished patronymic.

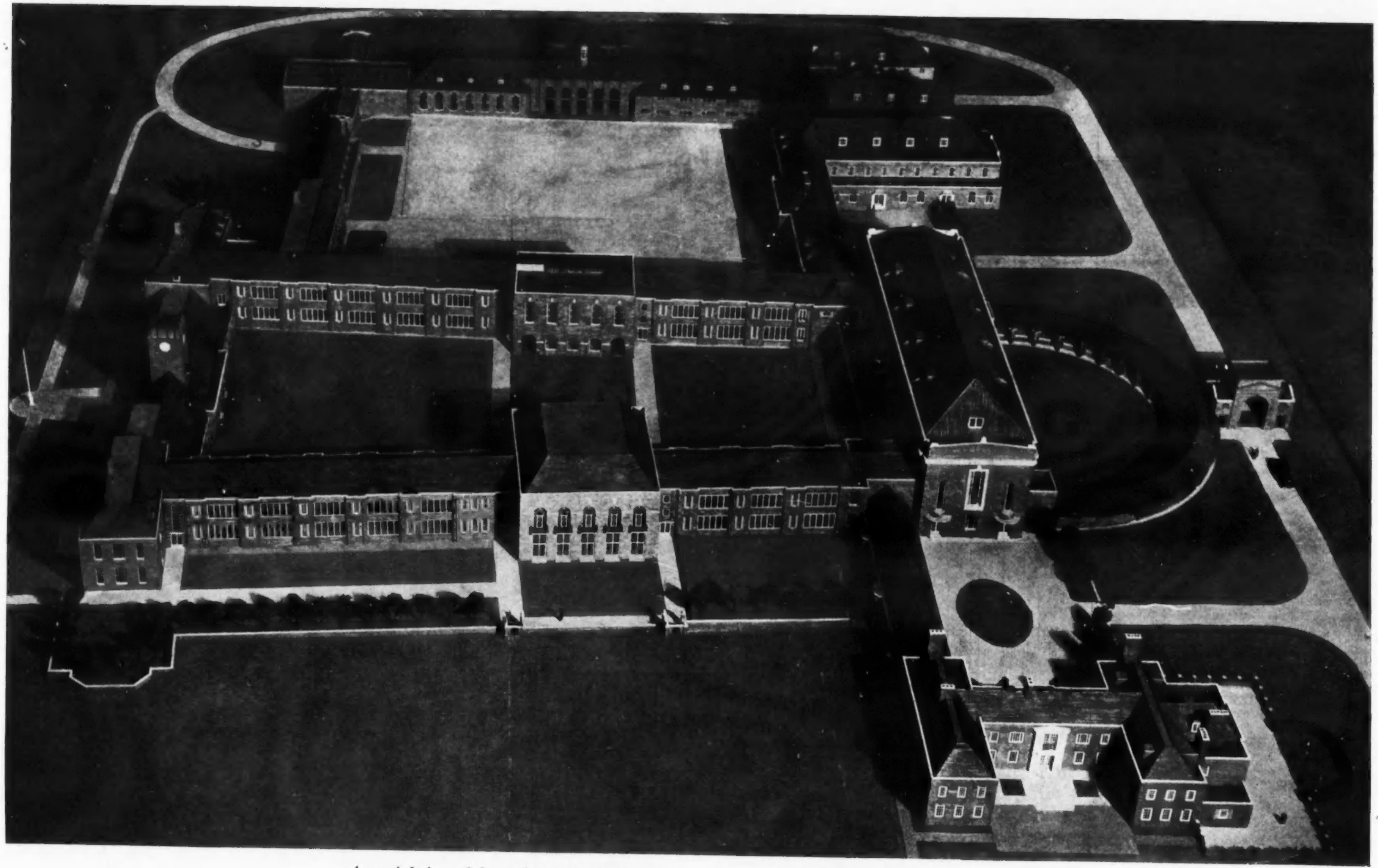


This sketch section through one of the main walls of the building shows the method, generally adopted, of binding the facing bricks, which work out at four courses to nine inches, with the ordinary constructional bricks (four courses to the foot). There are three stretcher courses of facing bricks to one of headers, the header course binding in with the brickwork behind.

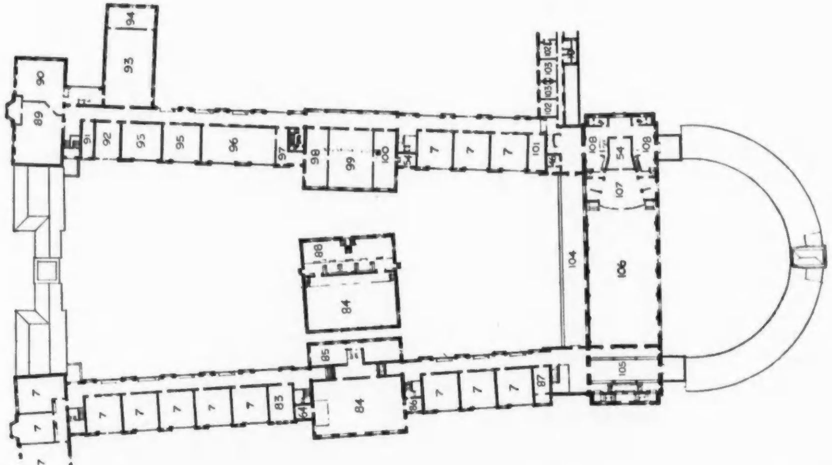


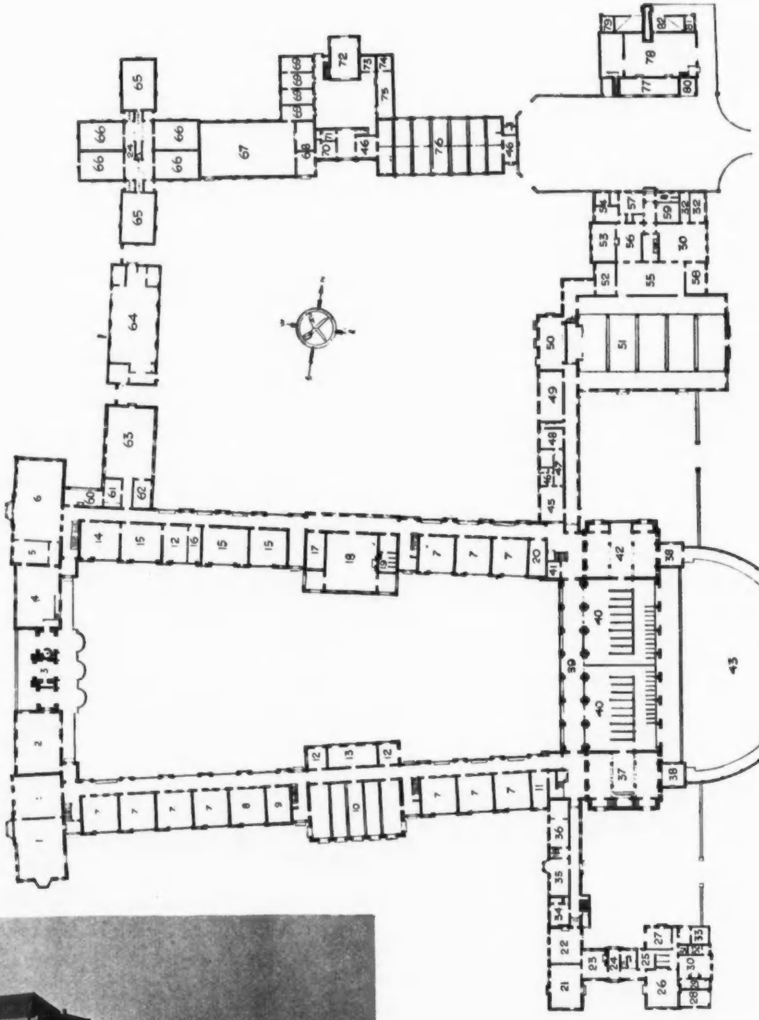
DESIGNED BY WILLIAM G. NEWTON AND PARTNERS

MERCHANT TAYLORS' SCHOOL, NORTHWOOD, MIDDX.



An aerial view of the model of the school, with the headmaster's house in the foreground. Further back, the dominating mass of the assembly hall can be seen, with the semicircular covered way leading to it from the gatehouse, and to the left, on either side of the main quad, the library and museum blocks rise above the horizontal lines of the wings containing classrooms.

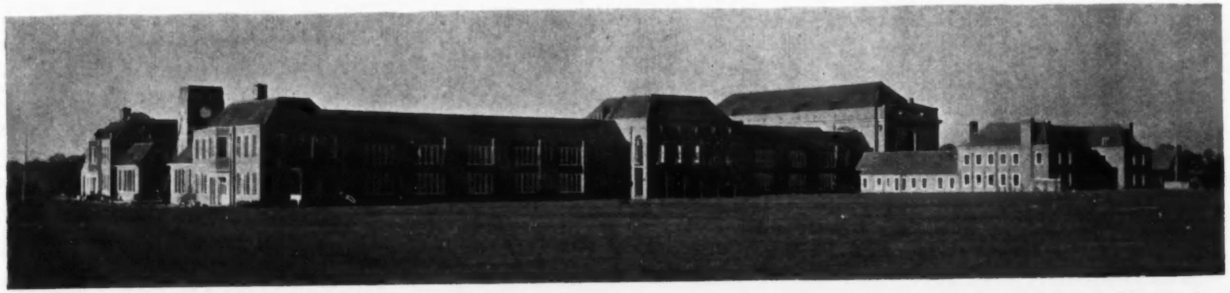




SCALE OF FEET
0 5 0 10 20 30 40 50
100
150
200
250

On this page is given a general view of the building from the south-west, showing the headmaster's house at the south-east corner. The plans are of part of the first floor, and of the ground floor. The key to the accommodation is as follows :—

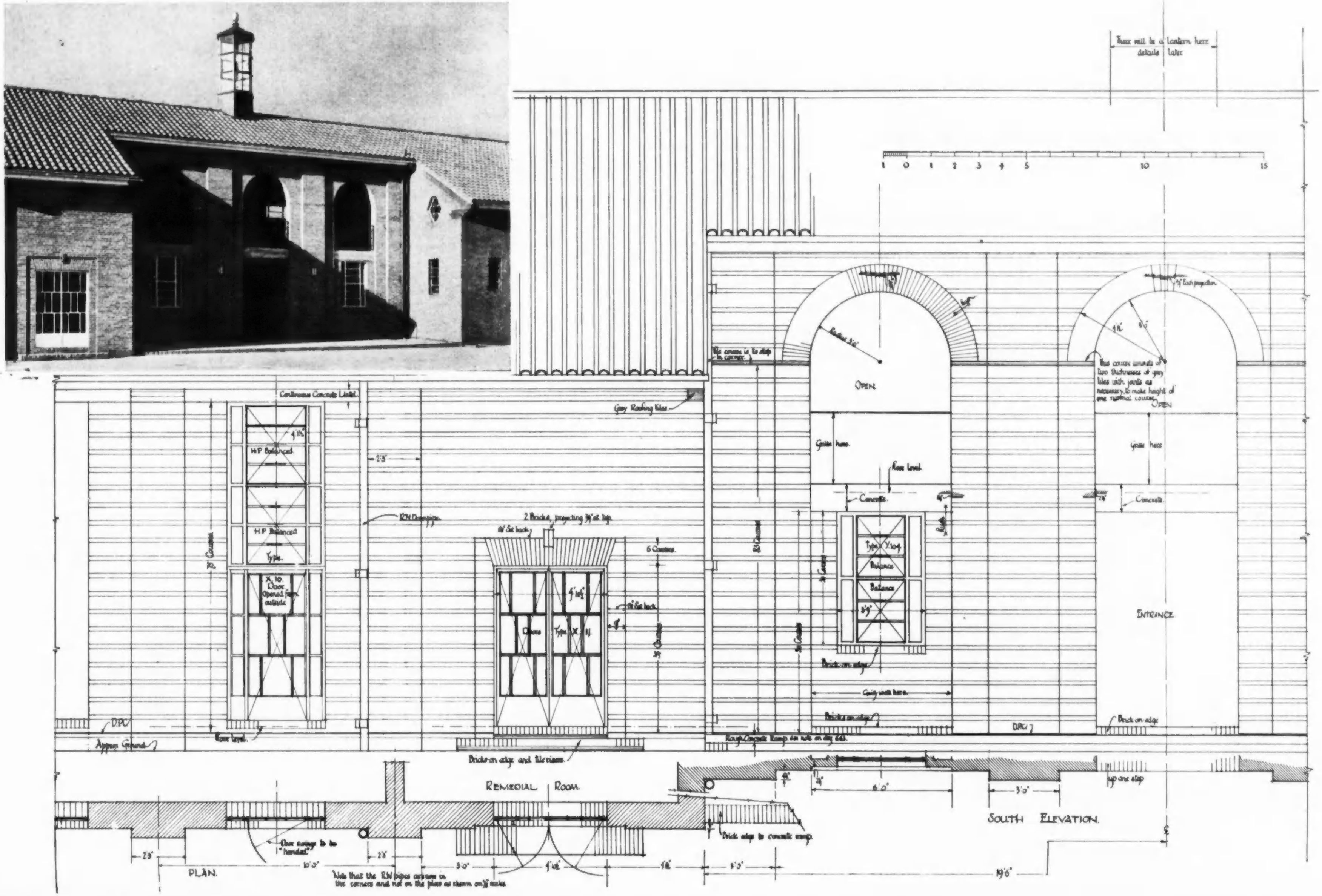
1—Geography rooms. 2—Temporary chapel. 3—Tower. 4—Lecture theatre. 5—Prep. room. 6—Elementary physics. 7—Classrooms. 8—Classroom (now monitors and prompters). 9—Committee room. 10—Lecture and examination hall. 11—Committee room. 12—Department head. 13—Masters' library. 14—Advanced physics. 15—Science classroom. 16—Special laboratory. 17—Locker room. 18—Masters' common room. 19—W.c.'s. 20—Electric sub-station. 21—Headmaster's drawing room. 22—Study. 23—Sitting hall. 24—Hall. 25—Pantry. 26—Dining room. 27—Servants' sitting room. 28—Garage. 29—Scullery. 30—Kitchen. 31—Store. 32—Larder. 33—Coal. 34—Secretary. 35—Reception room. 36—Medical inspection room. 37—South hall. 38—Vestibule. 39—Cloisters. 40—Cloak rooms. 41—Waiting room. 42—North hall. 43—East garth. 44—Gate house. 45—Clerks. 46—Lavatories. 47—Stationery. 48—School secretary. 49—Tuck shop. 50—Staff room. 51—Dining hall. 52—Wash-up. 53—Mess room. 54—Stores. 55—Servery. 56—Still room. 57—Superintendent. 58—Vegetables. 59—Receiving room. 60—Laboratory workshop. 61.—Switch room. 62—Dark room. 63—Electrical and optical laboratory. 64—Workshop. 65—Squash courts. 66—Fives courts. 67—Gymnasium. 68—Remedial store. 69—Visitors' changing rooms. 70—Instructor's room. 72—O.T.C. store. 73—C.O. 74—R.S.M. 75—Armoury. 76—School changing room. 77—Fuel. 78—Boiler room. 79—Sewage pump room. 80—Bin shed. 81—Engineers' office. 82—Ashpit. 83—Committee room. 84—Library. 85—Art rooms. 86—Librarian. 87—Ladies' cloak room. 88—Junior reading room. 89—Advanced chemical. 90—Chemical lecture room. 91—Chemistry store. 92—Physical chemistry laboratory. 93—Elementary chemical laboratory. 94—Balance room. 95—Form room. 96—Biology. 97—Biological prep. room. 98—Biological museum. 99—General science museum. 100—Archæology museum. 101—Committee room. 102, 103—Bachelors' quarters. 104—Paved terrace. 105—Ante hall. 106—Assembly hall. 107—Stage. 108—Green room.

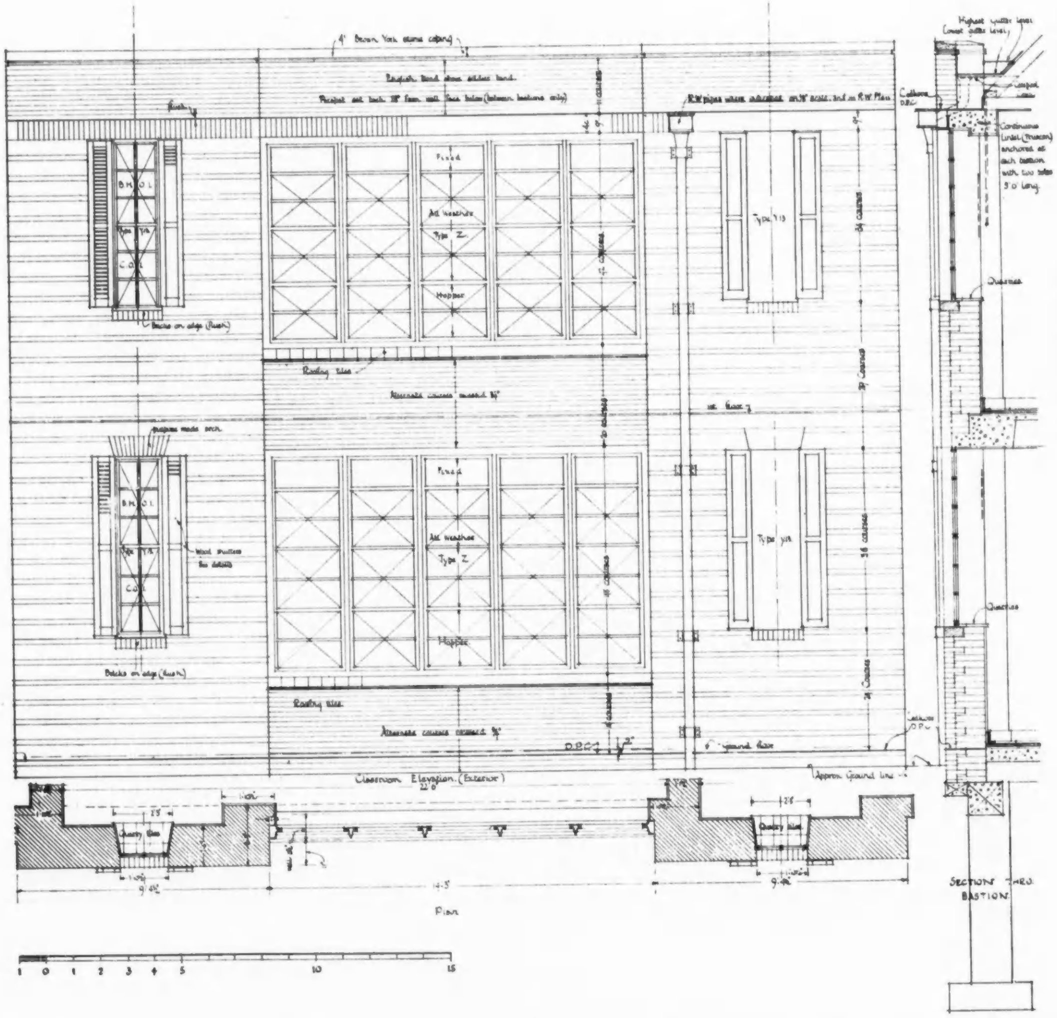


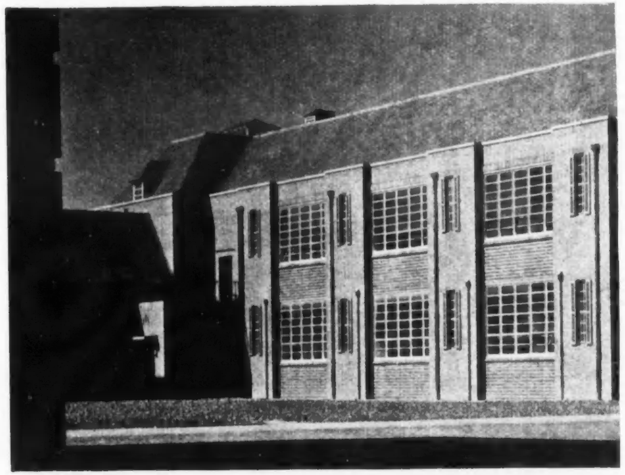
D

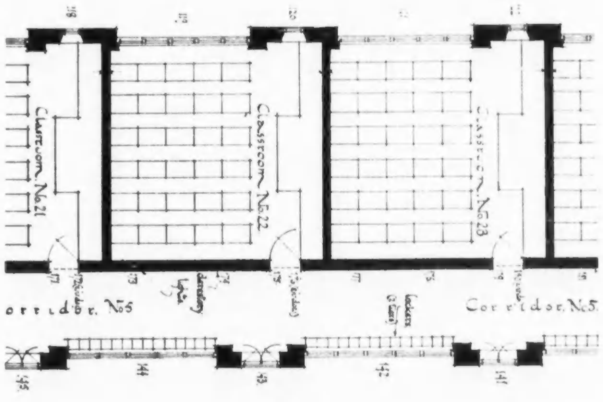
DESIGNED BY WILLIAM G. NEWTON AND PARTNERS

MERCHANT TAYLORS' SCHOOL, NORTHWOOD, MIDDX.


There will be a lantern here details later
1 0 1 2 3 4 5 10 15
Tile course is to step in corner
Radius 3'0"
OPEN
½" Each projection
4'6"
3'6"
This course consists of two thicknesses of grey tiles with joints as necessary, to make height of one normal course.
OPEN
Grille here.
Floor level.
Concrete.
Grille here
Concrete.
83 Courses
Type Y.104
Balance
Balance
3'9"
Brick-on-edge
Cavity wall here.
Bricks on edge
Brick on edge
ENTRANCE
DPC
Rough Concrete Ramp see note on dwg 663.
up one step
6'0"
3'0"
SOUTH ELEVATION.
Brick edge to concrete ramp.
3'3"
19'6"
Continuous Concrete Lintel.
Grey Roofing tiles.
4'1½"
H.P. Balanced.
H.P. Balanced
Type.
X.10.
Door
Opened from outside
2'3"
R.W. Downpipe.
2 Bricks projecting ¾" at top.
½" Set back.
6 Courses.
4'10½"
Doors
Type X.11.
½" Set back.
DPC
Approx. Ground
Floor level.
Brick on edge and tile risers.
REMEDIAL ROOM.
Door swings to be 1" handed"
2'3"
10'0"
2'3"
3'0"
4'10½"
1'6"
3'3"
PLAN.
Note that the R.W. pipes are now in the corners and not on the piers as shown on ⅛" scales.


4" Brown York stone coping
English bond stone soldier band
Parapet set back 1½" from wall face below (between bastions only)
Flush
B.H. O.L.
Type Y.A.
C.O.
Bricks on edge (flush)
Fixed
All weather
Type Z
Hopper
Roofing tiles
Alternate courses recessed ¾"
Gauged made arch
Wood shutters See details
R.W. pipes where indicated on ⅛" scale and on R.W. Plan
Type Y.B.
Type Y.A.
1st floor
6" Ground floor
D.P.C.
Highest gutter level
Lowest gutter level
Coupe
Cathorne D.P.C.
Continuous lintel (Truscon) anchored at each bastion with two bolts 3'0" long
Quarries
Approx. Ground line
Classroom Elevation (Exterior)
22'0"
Quarry tiles
2'8"
2'5"
9'6½"
14'3"
9'4½"
Plan
Section thro. bastion
1 0 1 2 3 4 5 10 15



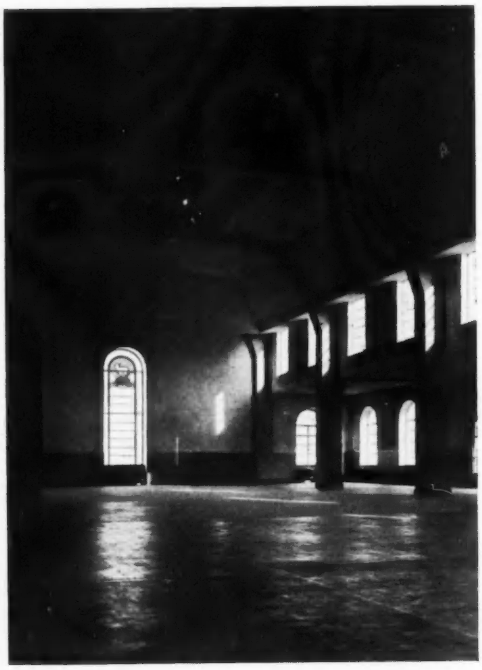

Classroom No. 21
Classroom No. 22
Classroom No. 23
Corridor No. 5
Corridor No. 5
clerestory lights
lockers
118
119
120
121
141
142
143
144
145
171
173
174
175
177

On the facing page are shown details of the south elevation of the gymnasium, changing rooms and O.T.C. quarters. The central arcade in the photograph leads to the O.T.C. quarters; on the left is a corner of the gymnasium; and part of the changing room block is seen on the right. Note the metal grilles to the arches on the first floor, and the interesting design of the window panes.

The elevations of the classroom wings, details of which are shown on this page, are a straightforward and effective expression of the plan. The long steel windows stretch across the pupils' part of each classroom, while solid piers, with narrow green shuttered windows, mark the end of the room occupied by the master (see portion of plan above). The horizontal feeling of the long windows is further stressed by the brickwork above and below them, where every alternate course is recessed ¾ of an inch. The vertical piers, where all the courses are laid flush, emphasize and punctuate the long, unbroken, horizontal lines of these façades.

DESIGNED BY WILLIAM G. NEWTON AND PARTNERS

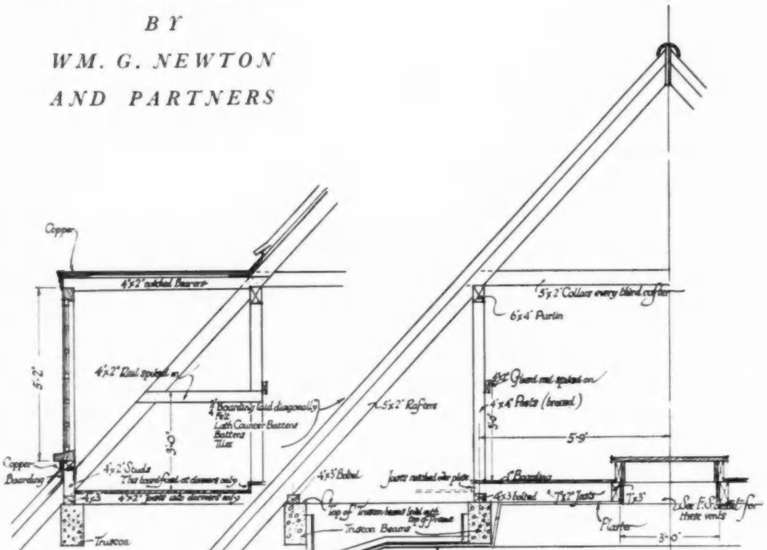
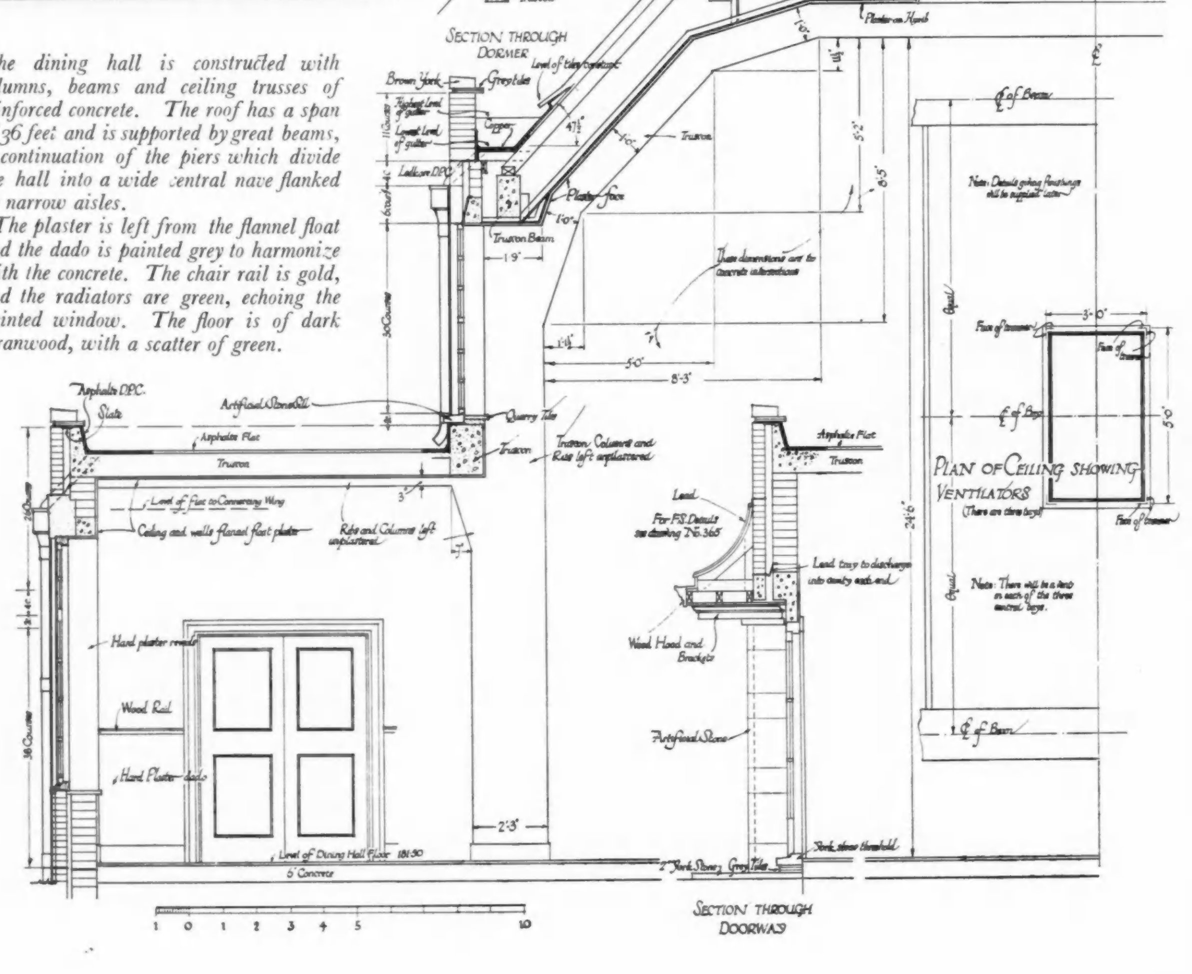
MERCHANT TAYLORS' SCHOOL, NORTHWOOD



DESIGNED
BY
WM. G. NEWTON
AND PARTNERS

The dining hall is constructed with columns, beams and ceiling trusses of reinforced concrete. The roof has a span of 36 feet and is supported by great beams, a continuation of the piers which divide the hall into a wide central nave flanked by narrow aisles.

The plaster is left from the flannel float and the dado is painted grey to harmonize with the concrete. The chair rail is gold, and the radiators are green, echoing the painted window. The floor is of dark Granwood, with a scatter of green.



Copper
4"x2" notched Bearers
5'2"
4"x2" Rail spiked on
3'0"
¾" Boarding laid diagonally
Felt
Lath Counter Battens
Battens
Tiles
Copper
Boarding
4"x2" Studs
This board fixed at dormer only
4"x3
4"x2" joists ditto dormer only
Truscon
SECTION THROUGH DORMER
5"x2" Rafters
5"x2" Collars every third rafter
6"x4" Purlin
4"x2" Guard rail spiked on
4"x4" Posts (braced)
5'9"
4"x3" Bolted
Joists notched over plate
Boarding
4"x3 bolted
7"x2" Joists
7"x3"
top of Truscon beams level with top of frame
Truscon Beams
Plaster
See F.S. detail for these vents
3'-0"
Plaster on Hardb
1'0"
Level of tiles constant
Brown York
Greytiles
Highest Level of gutter
Lowest Level of gutter
11 Courses
Copper
47½°
Ledkore DPC
6 Courses
Truscon
Plaster face
1'0"
Truscon Beam
1'9"
5'2"
8'5"
These dimensions are to concrete intersections
1'1½"
5'0"
8'3"
℄ of Beam
Note: Details giving flashings will be supplied later
Equal
3'-0"
Face of trimmer
Face of trimmer
℄ of Bays
5'0"
PLAN OF CEILING SHOWING VENTILATORS
(There are three bays)
Face of trimmer
24'6"
Note: There will be a vent in each of the three central bays.
℄ of Beam
Asphalte D.P.C.
Slate
Artificial Stone Sill
Quarry Tile
Asphalte Flat
Truscon
Truscon
Truscon Columns and Ribs left unplastered
30 Courses
28 Courses
3"
Level of flat to Connecting Wing
Ceiling and walls flannel float plaster
Ribs and Columns left unplastered
7"
Hard plaster reveals
Wood Rail
Hard Plaster dado
38 Courses
2'3"
Level of Dining Hall floor 181.50
6" Concrete
1 0 1 2 3 4 5 10
Asphalte Flat
Truscon
Lead
For F.S. Details see drawing No. 365
Lead tray to discharge into cavity each end
Wood Hood and Brackets
Artificial Stone
York stone threshold
2" York Stone, Grey Tiles
SECTION THROUGH DOORWAY

THE ONE-PIPE SYSTEM

Some Further Notes

[*By D. BETHUNE WILLIAMS*]

SOME months have now elapsed since the first discussions took place which brought to general notice in England the question of using a type of plumbing which at first sight appeared to be a radical departure from the sanitary practice to which we are accustomed, and no doubt within the next few months we shall have in our hands the bye-laws as amended to permit the use of the "one-pipe system."

The majority of those connected with the building trade have grown familiar with the name but there are probably still some who are not so conversant with its application in practice, and regard it as a foreign invention.

This it is not; it is merely the scientific development of the original system that was used here, to be discarded later as being unsafe on account of the doubtful quality of materials, workmanship and experimental data. Therefore, though it has been stated before, it may not be out of place to mention again the outstanding point in which our present system differs from the proposed alternative.

Under our present bye-laws in London certain fixtures, now to be known as soil fitments, i.e., urinals, slop sinks, etc., are permitted to be connected to a sewage drain without the intervention of any trap other than that at the fitting itself; this was considered quite sound practice even though in some cases as small a seal as 1¾ ins. was permitted. The point at which our drainage changes into a one-pipe system is that now the remaining fixtures, known as waste water fitments, are also to be permitted to have connections to a soil pipe or sewage drain similar to those of soil fitments.

The objection to the waste water fitment being connected by an untrapped pipe to the sewage drain is, of course, that fixtures, like basins and sinks, are frequently placed in habitable rooms, and the air in these rooms is then only protected against pollution with sewer gas by a single trap.

It is argued rightly that this trap might have its seal broken by evaporation, aspiration, pressure, or self siphonage, and it is therefore particularly necessary in one-pipe work to protect the trap seal from these risks.

The first danger of evaporation, and also that of diffusion of gases through the seal, is met by using traps with deep seals of from 3 ins. to 4 ins. Deeper seals are unnecessary and tend to collect sediment, which may give off unpleasant odours.

The next dangers of the liability of the trap seal being broken by self siphonage after the rapid discharge of its contents, or being broken by alternate pressure and suction due to a discharge from another fixture, are overcome by the use of the weight of the water column in the deep seal trap and also adequate venting; this latter piping in addition tends to prevent the accumulation of gases which would destroy the metal pipework.

In a one-pipe system of any size the vent pipes or vent arrangements are of the utmost importance for the correct functioning of the plumbing, also the closing of the vent pipes may well cause the unsealing of all fittings on that line, and so it is in their design that the quality of the plumbing layout will largely lie.

Closing of the vent pipes may occur due to a variety of reasons; one reason might be the accumulation of rusting or debris in the pipe. This can generally be overcome by the use of the more durable materials, such as cast iron, for the pipe, and the design of connections for the vent which tend to clear themselves, such as by-passing the vent pipe and taking one fixture into the base of the stack, which will automatically remove any accumulations.

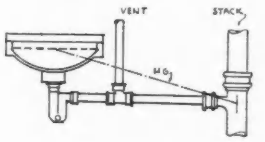


Figure 1

The vent might also be closed by being placed in such a position that during discharge of the fitting the waste matters rise up and deposit sediment in the vent, as illustrated (Fig. 1). This can be prevented by placing the vent above the hydraulic gradient. In certain cases such as baths, this is impossible, in which case use may be made of part of the vent as a waste pipe for another fixture from which a vent is taken above the hydraulic gradient (see Fig. 2 herewith from *A.J.*, Nov. 23, 1932). The level of the vent in relation to the fixture should also be checked to see that it is not possible for it to act as an overflow should the branch be blocked.

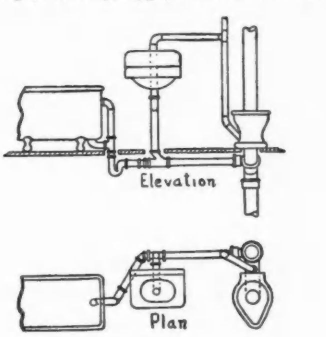


Figure 2

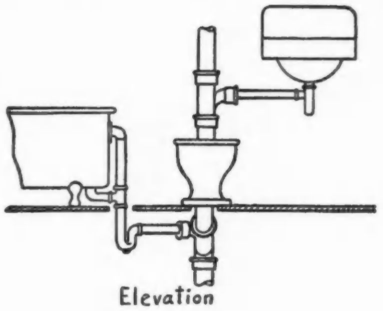


Figure 3

For smaller domestic work it has been found by experiment in the U.S.A. that venting in certain cases by separate pipes was unnecessary, and a sketch of such work is given (Fig. 3). It is unlikely, however, that this will be adopted in London though probably duplex venting as illustrated will be permitted (Fig. 4).

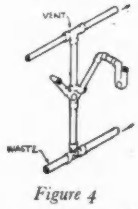


Figure 4

In London at present an example of large-size work on this system is the experimental layout at the Cumberland Hotel: abroad, however, there are innumerable examples, the best being found in North America, where the one-pipe system is used to an extent hardly realized, entirely refuting the idea which seems to be held that it is only for buildings of great size that the system is applicable.

In domestic work, inside plumbing with one-pipe work will reduce the sizes of pipe ducts and in many buildings of 4 and 5 stories, carefully planned to suit the ductwork, the system will be found satisfactory either as the general scheme or as part of it, but it must be remembered first that rainwater may not connect into a soil pipe; and, secondly, that, with fittings connecting to a horizontal run of drain with an adjoining stack, there is the risk that their seals may be forced unless special provision is made.

Finally, during the earlier discussion, much was made of the dangers of the one-pipe system and demands were advanced for heavy safeguards to prevent unpleasant odours arising from the fittings. Such odours were not noticed by the writer in any of the North American buildings that were visited but every day there are still noticeable in London slipshod methods of dust removal and possibly now that one-pipe plumbing is on the way those who were so particular about dangers arising from the disposal of one form of waste might turn their attention to the disposal of that other form of waste.

Slum Clearance

Speaking at the Bonar Law College at Ashridge on Wednesday last, the Minister of Health said that the Government's circular to the local authorities, calling for a five years' programme of slum clearance, had been described by some critics as a mere gesture. It was a gesture to kick a ball into the net, but without the gesture there would be no goal. It was the fixed purpose of the Government to put an end to the slums as soon as humanly possible, and in that purpose they would be supported by the country and by the local authorities. The local authorities must be the van of the advance, because they alone had the local knowledge necessary to show the way; but by hook or by crook the Government intended to see the matter through.

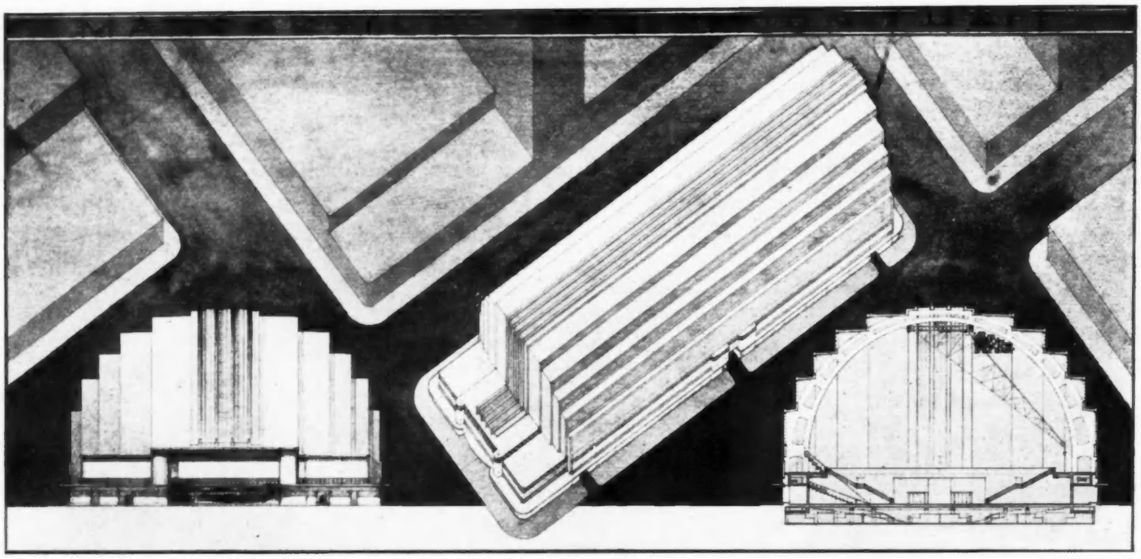
Wakefield Cathedral

The architect has given such a serious report on the condition of the beams of Wakefield Cathedral nave roof that an order has been given to construct internal scaffolding in order to avert possible disaster. This will be done immediately. It will be necessary to proceed with the work of repair as soon as funds permit.

Change of Address

Messrs. E. H. Stodart & Co., architects and surveyors, have removed their offices to 21, Bedford Row, Gray's Inn, W.C.1. Telephone No.: Chancery 8147.

COMPETITION FOR AN EXHIBITION



MESSRS. H. S. Fairhurst, A. J. Hope and J. Hubert Worthington, the assessors in the competition for the design of a new exhibition hall for Manchester, organized by the Management of the Manchester Building Trades Exhibition, have made their award as follows:—

First Prize (£150): R. H. Uren, A.N.Z.I.A. (qualified and awaiting election as A.R.I.B.A.), of Belsize Park Gardens, Hampstead, N.W.3.

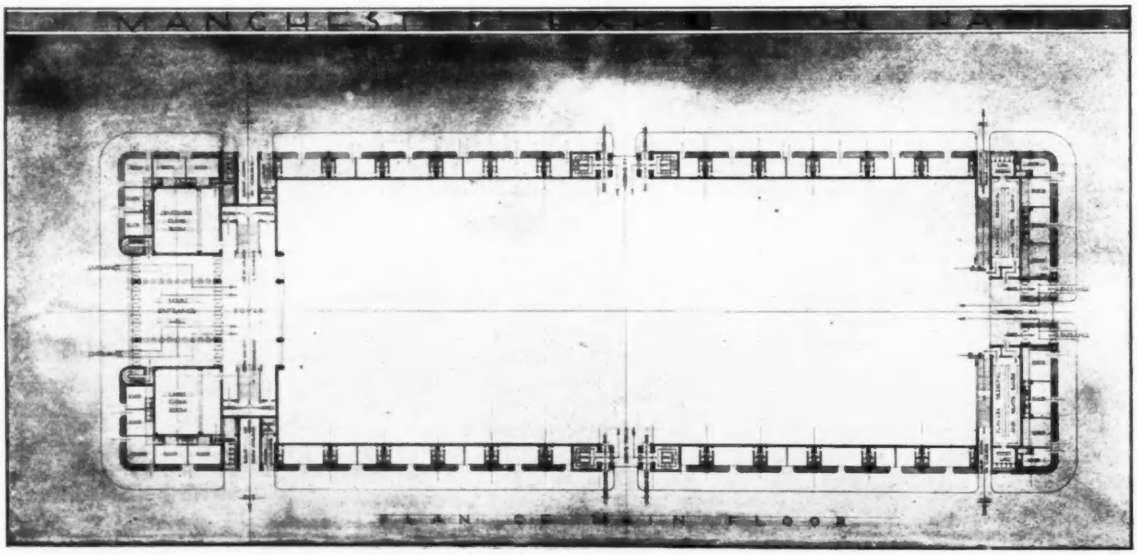
Second Prize (£75): H. H. Jewell, F.R.I.B.A., of 12 Gt. James Street, Bedford Row, London, W.C.

Third Prize (£25): T. Harold Hughes, F.R.I.B.A., F.S.I., of 121 Douglas Street, Glasgow.

Highly Commended: Charles E. Pearson, A.R.I.B.A., of 18 Dalton Square, Lancaster.

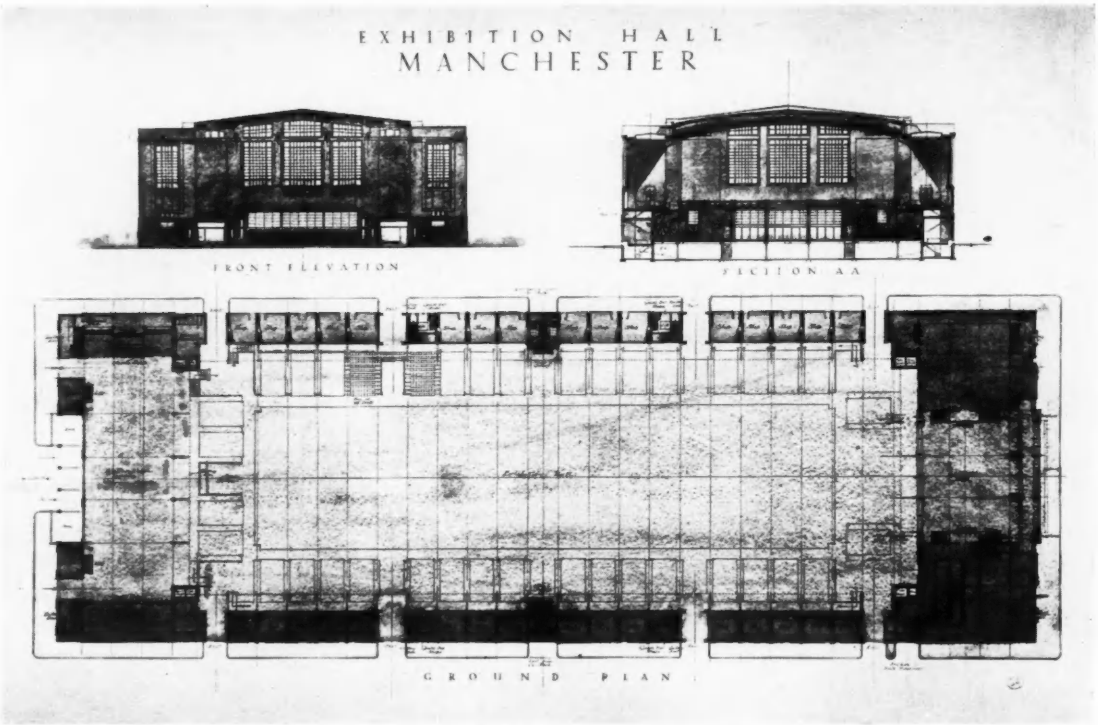
The assessors, in their report, stated: "The competition produced an excellent response, 93 designs being submitted for adjudication, with more than 500 sheets of drawings. The problem was one of exceptional complexity, calling for resource and skill in planning and design, the main points being to provide a distinctive and arresting Exhibition Hall of dimensions which created a very unusual structural problem. The question of awarding the prizes was a difficult one, as we feel that none of the competitors met the whole of the conditions in an entirely satisfactory manner."

In highly commending the design submitted by Mr. Pearson, the assessors further stated that they "were unable to award it a prize owing to the infringement of the gallery condition."

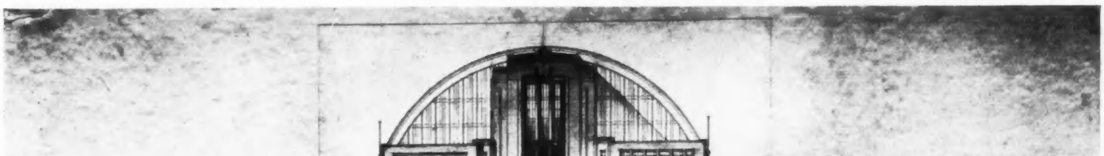


DESIGN PLACED FIRST: BY REGINALD H. UREN

HALL, MANCHESTER: PREMIATED DESIGNS

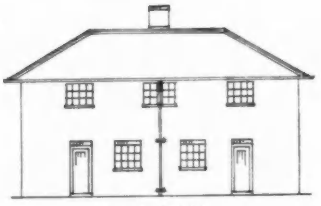

EXHIBITION HALL
MANCHESTER
FRONT ELEVATION
SECTION AA
GROUND PLAN

DESIGN PLACED SECOND: BY HARRY H. JEWELL

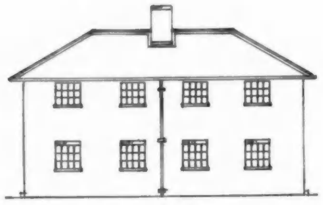

ENTRANCE HALL
CLOAKS

DESIGN PLACED THIRD: BY T. HAROLD HUGHES

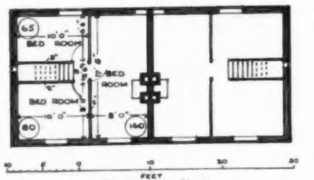
WHAT IS TO BE DONE ABOUT



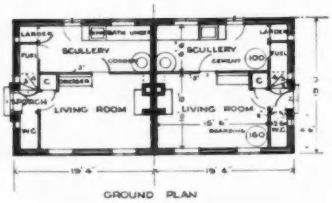
REAR ELEVATION



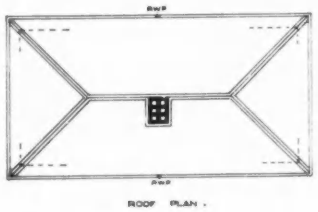
ROAD ELEVATION



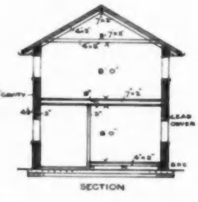
FIRST FLOOR PLAN



GROUND PLAN



ROOF PLAN.



SECTION

BOTH ENDS

THIS?

[Again, this week, we postpone resumption of our pre-arranged sequence of articles under this heading. A current event gives us good reason to do so.

It will not escape the reader that, on this occasion, the dread familiar mock-Tudor villa head-piece has given place to a design of utilitarian simplicity, which he will recognize as representing drawings of a type of cottage that has become standardized. It was about this that the Building Centre virtually propounded the question "What is to be done?" to intending competitors in their competition, of which the result was announced in full in our issue of a week ago.

To consider to what extent and how the premiated designs suggest answers is the concern of the following critique of the competition.—ED., *A.J.*]

6. The Building Centre Competition

[*BY E. MAXWELL FRY*]

THIS is, I think, the first competition instituted by the Building Centre, which, it will be remembered, is to use part of its funds for the purpose of furthering the cause of architecture and building. This competition definitely aims at finding means to lower the cost of the smallest house unit, in the hope of achieving an economic rent.

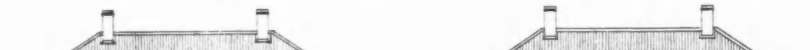
The Government, having removed the subsidy from cottage housing, have provoked a situation which has to be tackled by private enterprise, if at all, and this problem, already closely-studied, is once again to be subjected to enquiry.

Rightly or wrongly, this competition uses as a basis the smallest unit of cottage construction. One might imagine that the answer to the question of housing the lowest paid workers would lie in the direction of very much larger units than are commonly found in any form of housing development today, for, if the provision of communal services is to be used to the greatest advantage a larger scale of grouping seems to be called for, to say nothing of the saving brought about by terrace building as opposed to erection in small blocks. And further, the opportunity which connected frontages offer for a fine design is lost entirely when site planning becomes a matter of dotting about tiny boxes in a pattern which is only realizable from the air.

AN AVENUE EXPLORED

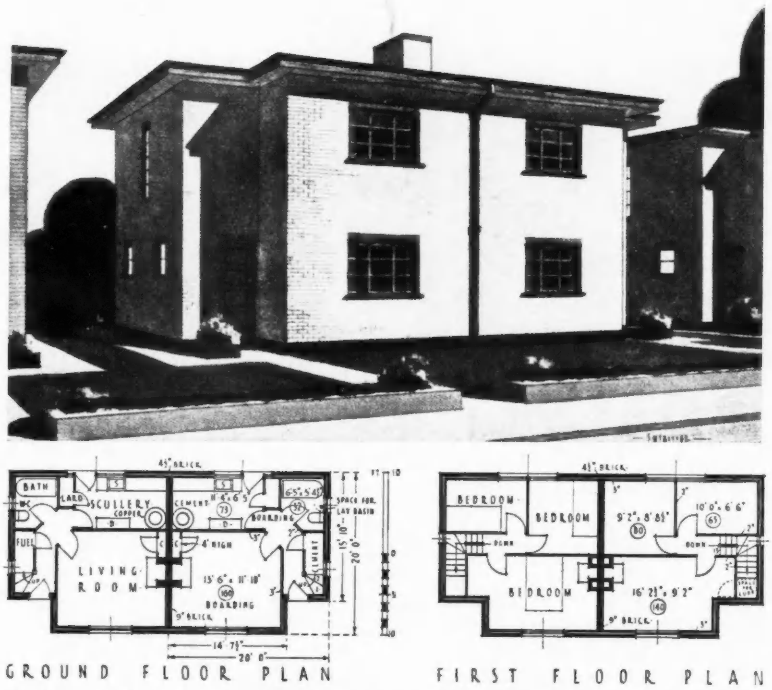
The methods adopted by the Building Centre, therefore, appear to explore only one avenue and to base their premises upon the accepted formula of today, leaving a further field for what we may take to be a different type of exploration, requiring a larger organization fit for the control of a National Housing Corporation and beyond the scope of the common unit of the building trade. This is, in fact, a competition to provide a stimulus to the small builder. There is no suggestion that it will lead to a revival of sound estate planning.

Within the limited field thus defined the programme is drawn up with considerable efficiency, not unmixed with guile. A standard cottage design (reproduced as preamble to this article) together with a specification, was prepared and issued to all competitors as a jumping-off point for their contributions. To quote from the conditions, "The Directors of the Building Centre are informed that substantial cottages of the standard type (drawing and specification accompany these conditions) may be, with certain immaterial differences, erected in numbers of four at one time for the approximate sum of £225 per cottage. . . Competitors

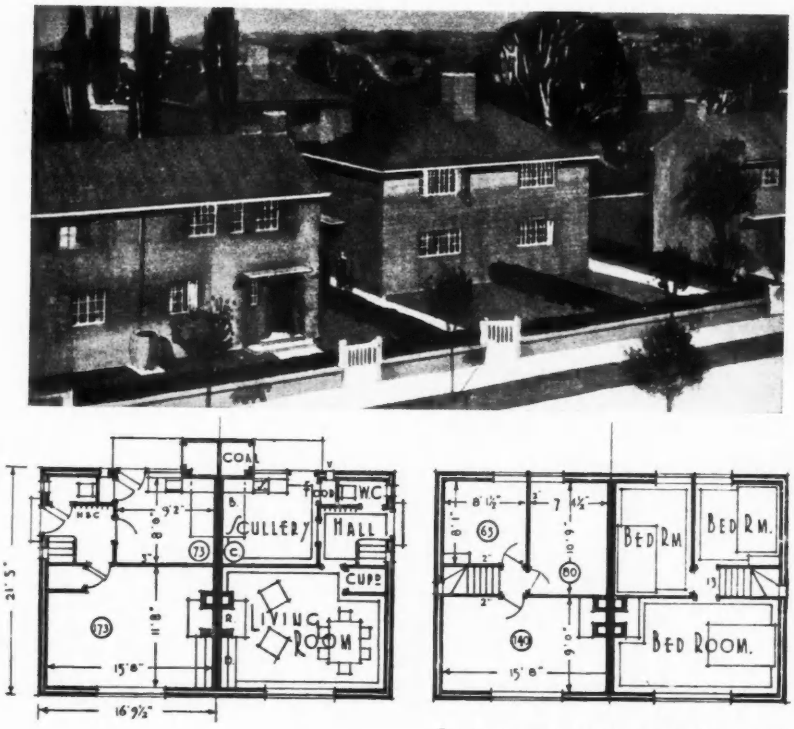


[BUILDING CENTRE COTTAGE COMPETITION

Design placed first (Premium £100): By N. E. Leeson, of Messrs. Oliver and Leeson (Newcastle-on-Tyne). Mr. Leeson's design was accompanied by a tender from: Messrs. Adam Carse, of Amble, Northumberland, undertaking to erect four cottages for the sum of £900.



Design awarded a Special Prize of £10 10s. By S. W. T. Blythe. The design was accompanied by a tender from E. G. Campion, New Barnet, Herts., undertaking to erect four cottages for the sum of £900.



[BUILDING CENTRE COTTAGE COMPETITION

Design awarded a Special Prize of £5 5s. By H. U. Diplock, of Sterret, Glover & Diplock. The design was accompanied by a tender from Walter Gale & Co., Leamington Spa, undertaking to erect four cottages for the sum of £900.

must give the same accommodation as shown on this diagram, provided the total cost is not increased; and if any lesser cost is possible full details as to how this can be effected must be given."

The fittings and accommodation shown on the standard plan were to be adhered to, but any materials which would be approved by local authorities could be used and other variations were allowed so long as the material accommodation was not reduced. It was further laid down that buildings were not to be *in larger units than two dwellings.*

THE RESULT

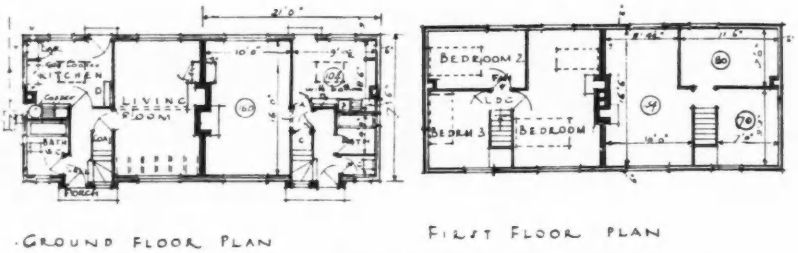
Some three hundred designs were received, and in the process of elimination those showing a w.c. approached from outside, and several which made use of a freak construction which the jury felt it was impossible to erect with economy, were thrown out in the first round. In reviewing the fifty or more entries, which will be exhibited in June, it must constantly be borne in mind that the conditions very narrowly define the nature of solutions. Generally the jury have favoured designs which maintain a reasonably high level of accommodation. Through ventilation has been regarded as desirable, while the separation of bath and w.c., and the accessibility of bathrooms from the latter are points which have weighed heavily with them. The question of the reasonableness of the estimates is in all cases vouched for by a form of tender from a builder to erect two pairs of the cottages.

FIRST PRIZE DESIGN

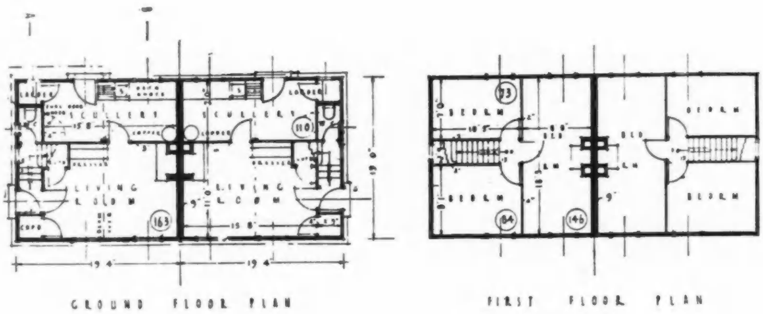
N. E. Leeson, the first prize winner, has managed to fulfil the conditions without sacrificing the external appearance. A small break on the front and the rear elevations gives him an addition in depth very helpful to the accommodation of scullery and bathroom fitments. The bathroom is entered from a passage hall, from which winding stairs lead over a fuel cupboard to the first floor. The scullery is well planned, with a larder window adaptable to changing aspects, and there is provision for a hatch if desired. If the house is reasonably well built there should be no trouble with cross draughts. The living room runs through the depth of the house and that ingenious gadget, the back-to-back fire, is used with considerable effect. The bedroom accommodation occupies all but a very small portion of the first floor area, there being a landing only 2 ft. 6 ins. by 5 ft., giving two bedrooms 7 ft. 3 ins. by 10 ft. and the principal bedroom, with fireplace, 9 ft. by 15 ft. 6 ins. The flues which rise on each side of the stair landing form one stack within the roof space. No bedroom cupboards are provided and the tank occupies a position over the stairs, leaving bare headroom. The plan provides very economical frontage, and there is some little reason to doubt that this design could be built for the price. In appearance it adheres to normal practice, being neither distinguished nor yet unsightly. The economies are economies of plan and cheap building that are relatively unconcerned with the larger issues to be associated with large-scale housing.

SPECIAL PRIZE DESIGN
(£10 10s.)

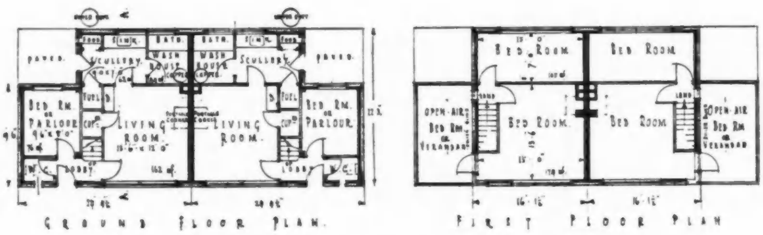
The design of S. W. T. Blythe (special prize of ten guineas) employs hollow brick walls and a flat roof, the use of which frees his plan from the financial restrictions imposed by the complications of cheap roofing on any but the simplest rectangle. His living room occupies a position in the front. The front door opens on to a cramped passage from which the stairs rise awkwardly, the access to them being temporarily closed when the door is three-quarters open. The bathroom and scullery are separate and the scullery appears to be workmanlike and not subject to draughts, but in-



Design by G. E. Clare. Builders: Thornton Hall, Ltd., of Harrow.



Design by T. Schaerer. No tender was submitted.



Design by W. Naseby Adams. Builder: W. J. Nichols, of Gloucester.

[BUILDING CENTRE COTTAGE COMPETITION

adequately lit. Not very much can be said for the diagonal passage cut into above by the soffit of the stairs. The principal bedroom is adequate and a second bedroom, 8 ft. 8½ ins. by 9 ft. 2 ins., is balanced against a very much smaller third bedroom. Externally the appearance inclines to dullness, though there is every opportunity of relieving this by careful study of the window openings. If we are to build in small units this flat-roof type would conform with its neighbours the more easily for being rid of a heaving roof line.

SPECIAL PRIZE DESIGN

(£5 5s.)

The design of H. U. Diplock (awarded a special prize of five guineas) is extremely pleasing and straightforward upon conventional lines. The living room is of interesting shape, with a dining recess suggested at one end. The bath is placed in the scullery, which is, however, roomier than most. The hall, again, is pleasantly commodious. Upstairs a principal bedroom, 9 ft. by 15 ft. 8 ins., and a second bedroom, 7 ft. 4½ ins. by 10 ft. 9 ins., are provided with sufficient economy to allow of the smallest bedroom being quite adequate for its purpose. A coal bin is placed outside the house. A feature of this plan is the possibility it offers to alternative design by changing the party wall. The depth of 21 ft. 5 in. is reduced to the length of the living room, 15 ft. 8 in., with the effect reproduced in the perspective sketch.

A RUNNING COMMENTARY

Experimental construction does not seem to have produced designs capable of competing, within the limits of this competition, with standard practice. The flat roof may perhaps be held to have proved a case for itself, but the assessors have not looked kindly at the attempts of No. 250, who use Poilite sheets and Ruberoid, or at several other unusual methods of construction, such as No. 195, using tubular steel framework and thatchboard covering, or No. 217, a charming but too costly design employing cellular concrete cased in a heavier concrete in a wall of a thickness of 2 ins. No. 114, an interesting design by Manning-Robertson and J. H. de Waller, uses the Nofrango system, employing a steel framework upon which hessian is stretched as the reinforcement for fine concrete. It is interesting to see that No. 231, by David Booth, of Broadway, Worc., by providing a horizontal division, produces two flats instead of two cottages, whereby considerably larger and more spacious living room is available. Against this must be set the disadvantages of one family living over another, and it is likely that a soundproof and fireproof floor would have to be provided between the two.

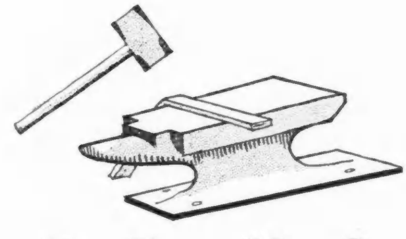
No. 203, by T. Schaerer, takes advantage of the market price of copper to use this material as a sheet facing over a frame with slagwool and with the inside surface plastered over board. His roof is also in copper or, as an alternative, an alloy of copper, by name Tecuta, which is not in general use as yet. Another interesting design is that of W. Naseby Adams, which the assessors felt could hardly be built for the money, but included because of the very generous accommodation provided in a design of this type. The third bedroom is offered as an alternative to a parlour on the ground floor with an open-air bedroom or veranda at first floor level, entered from the large best bedroom. The scullery and combined bath and wash houses are separated at some expense to the scullery itself.

CONCLUSIONS

In all, the three hundred entries offer a fairly wide range of constructional possibilities and very limited plan variations, as one might expect. A minor battle of methods has been staged, without, it would appear, any very decisive result. The competition appears to have proved that the price level of the small house built in pairs is capable of a reduction below the figures upon which the last Housing Act was based and for this reason and because this effect will undoubtedly stimulate the small builder to enter a field of enterprise from which he has hitherto backed in alarm, it is of value, especially when one realizes that the results are to be widely advertised to the general public.

I understand that the winning pair of cottages will be erected on a site in the Strand some time in June, and one could not hope for a more concrete form of publicity than this. If, in addition, the furnishing and equipment of the specimen pair is undertaken by a body such as the Design and Industries Association the usefulness of the competition will be carried still further and it will no longer be said that architects are leaving uneducated a vast population of lower-paid workers which private enterprise somehow or other has got to house. The exhibition which will take place at the same time at the Building Centre is to include models of many of the designs, and at a later date a book is to be prepared on the lines of similar books of model plans which the Ministry of Health and other bodies issue for the guidance of local authorities and others controlling the design of housing schemes.

EASY TERMS
PLANS APPROVED



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

The Manchester Building Trades Exhibition

THE Building Exhibition at the City Hall, (open until May 6) is a quite practical little show, surprising in its simplicity of lay-out and freedom from overcrowding. No attempt, however, appears to have been made to group the exhibits in their several categories, and the design of exhibitors' stands is disappointing.

•

Because I visited this bi-annual event for the first time this year I cannot tell whether the coloured celluloid lamp shades and brilliant cut mirrors are beginning to creep in, or whether they have been almost entirely cleared out ; but there is happily very little jazz shoddy outside the display houses.

•

When will the manufacturers of standard windows and doors give us a well-designed standard lever handle in place of the curly b.m.a. levers and ornamental synthetic resin knobs that we must buy at present if we cannot afford the specially made? The lack of such a simple device is evident at every exhibition.

An Asbestos Building Board

The building board exhibited by Asbestos Cement Building Products is, I understand, the only board manufactured at present in this country from asbestos mineral fibre. The raw fibres, when crushed, become fine silk-like threads, which, under pressure, provide an intricate and closely interwoven structure of high insulating capacity.

•

But it seems the great value of the board lies in its effective resistance to fire. Some months ago an interesting fire test was carried out at Trafford Park, where two timber-framed structures were erected ; the first lined internally with seven-ply gaboon plywood, ⅞ in. thick, and the second with 1 in. thick composite panels of plywood and asbestos. Each structure was charged with fuel—shavings and dry timber saturated with paraffin oil—and fired.

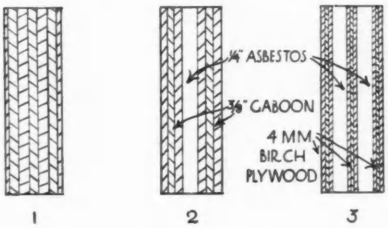
•

The ⅞ in. gaboon plywood panel burned through completely.

In the case of the composite panel, No. 2 in the accompanying diagram, the exposed surface of the three-ply wood burnt away entirely. The asbestos layer, to the depth of 1/16 in., was black in colour but the outer face was unaffected by the fire and retained its natural texture. The three-ply wood on the outer surface was completely protected by the asbestos layer and unaffected by the heat or the water played upon it during the process.

•

No 3 composite panel behaved in a similar manner. The exposed surface of the three-ply wood was completely burnt away, and a similar effect to that described above was produced on the first layer of the asbestos lining. An attempt was made to break away the inner section of three-ply wood, but it was found that perfect adhesion with the second layer of asbestos had been maintained. The second layer of asbestos, and the outer layer of three-ply wood, were quite intact.



Three types of board used in a fire test on asbestos board. 1 : 7-ply gaboon, ⅞ in. thick, 2 : composite plywood and asbestos panel approximately 1 in. thick, 3 : composite plywood and asbestos panel approximately 1 in. thick.

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The asbestos wallboard weighs 1 lb. per sq. ft. It is ¼ in. thick, and the standard size for sheets is 8 ft. by 4 ft.

A New Waterproofer

The Powell Duffryn Steam Coal Company are demonstrating Synthaprufe, a new liquid by-product of Welsh coal, with a milk-like consistency, that seems equally efficient for jointing and waterproofing. Minute cracks in cement and concrete surfaces are apt to make waterproofing a difficult business, but it appears the new material will enter even the finest hair crack and form within it a waterproof and adhesive deposit, resembling rubber in its elasticity and responding to any reasonable movement in the surface treated.

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The material is recommended for reservoirs, swimming baths, horizontal and vertical damp courses, and for making waterproof joints in concrete, glass and similar materials. It should be particularly useful for flat roofs.

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It is applied by brush, in two or three coats. For the first coat one gallon will cover 10 yards, and in subsequent coats a gallon will cover approximately twice that area.

•

The price varies with the quantity bought, 10 gallon to 40 gallon drums costing 6s. per gallon.

Wood Block Floors

J. Gerrard and Sons, the building contractors who have recently completed the Royal Hospital School, Holbrook, are, I imagine, well known as manufacturers of wood block flooring. At Manchester, on a stand designed by Buckland and Haywood, they have a special display of wood block flooring in Empire timbers.

•

The blocks are cut to standard 1 in. and 1¼ ins. thicknesses, either tongued and grooved or dove-tailed. The tongued and grooved are slightly more expensive, costing, in 1 in. thickness, approximately the same as dove-tailed blocks in 1¼ ins. thickness.

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Among the wood block floors exhibited are those in jarrah, matai, gurjun, Douglas fir or Columbian pine, Canadian rock maple, Canadian birch, Moulmein teak, New Zealand silver beech, and British Borneo white serayah.

•

Columbian pine is cheap, costing, including laying, 7s. per yard, 1 in. thick, dovetailed, or 7s. 6d. per yard, 1 in. thick, tongued and grooved.

Jarrah is 8s. and 8s. 6d., matai, a light yellowish wood, 10s., gurjun 10s. 6d. and Moulmein teak 11s. 6d. and 12s.

A New Wall Colouring Medium

Among the Cementone products is *Exelaero*, a wall colouring material for immediate use on inside plaster, sirapite, Keene's and Parian cement renderings, or for application to external cement walls which do not need waterproofing, but which do need a tight gripping colouring material that will resist the action of both cement and weather.

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The material should be applied in two coats and a period of 24 hours allowed to elapse between the two applications. One gallon will cover up to 50 yards super in one coat, and the material costs from 8s. 6d. to 10s. per gallon, according to quantity.

A Glazed Hollow Tile

The Attoc block is a new type of hard burnt clay hollow tile for partition and floor construction. It is, I believe unique, being glazed (on one or both sides) and so requiring no applied surface finish.

●

It should be particularly valuable in cases where speed of erection is an important factor, for by its use walls and ceilings are erected, complete with surface treatment, in one operation.

For single story buildings the tile can be used, alone, for the wall construction.

●

The wall tile is made in 2, 2½, 3, 3½ and 4½ in. thicknesses, and in the following standard sizes :—12 ins. by 8 ins., 12 ins. by 9 ins., 12 ins. by 10 ins., and 15 ins. by 9 ins.

●

The floor tile is made with a glazed soffit and has, on either side, ribs projecting 1½ ins., which, when butted, leave a space of 3 ins. between the vertical faces of adjacent tiles to take reinforcing rods and poured concrete. When the centering is struck the ceiling is complete.

The bay window in one of the geography rooms at the Merchant Taylors' school. The ceiling is decorated with a map of England.

THE HOUSING BILL

[BY OUR SPECIAL REPRESENTATIVE]

DURING the report stage of the Housing (Financial Provisions) Bill in the House of Lords, Lord Salisbury moved to omit the paragraph which provides that any proposals made to the Minister of Health under Clause 2 shall make provision for securing that, except in so far as the Minister may in any particular case dispense with the requirements of this paragraph, the number of such houses in relation to the area occupied or intended to be occupied by and in connection with them will not exceed the rate of 12 to the acre. The paragraph also provided that, except where otherwise approved by the Minister on the recommendation of the local authority, every house to which this section applied should be provided with a fixed bath. He said that the Government were not well advised to insert a provision which would make working-class houses dearer instead of cheaper. He did not say that houses should be built more than 12 to the acre, but he argued that the building societies, who knew the needs of their customers, should be left with a free hand to build the houses which they found to be required.

Lord Buckmaster said that the paragraph would not interfere with the building societies, and all that would be done would be to secure that the facilities under the clause should only be provided for the erection of a particular class of house, subject to the overriding power of the Minister of Health. The provision of a bath in the house of a working-class tenant was essential wherever possible.

Lord Gage, replying for the Government, said that the clause was the result of an agreement between the Government and the building societies. He would oppose the amendment. The provision of fixed baths and the restriction as to density per acre originated in the Wheatley Act of 1924, and since that time no subsidy had been given to houses unless they conformed to those requirements. In the view of the Ministry the provisions about the density per acre would not appreciably affect the cost of the houses on the sites to be selected. The primary object was to continue the construction of Wheatley houses for the working-classes.

The amendment was negatived by 38 votes to 15 and the report stage concluded.

MERCHANT TAYLORS' SCHOOL

Following are the names of the general contractors, and some of the sub-contractors, for Merchant Taylors' School, Sandy Lodge, Northwood, Middlesex (pages 578, 591-596 and supplement). General contractors, Holland and Hannen and Cubitts, Ltd., who were also responsible for the plumbing, gasfitting, joinery and water supply. Specialists : Alan Durst (external stone carving) ; Esmond Burton (internal wood carving) ; C. J. Dring (special tiles) ; Eric Ravilions (painted ceiling panels) ; J. Spear (painted glass). Sub-contractors : Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, excavation, foundations, mantels and reinforced concrete ; Ragusa Asphalte Paving Co., Ltd., asphalt ; G. M. Callender & Co., "Ledkore" dampcourses ; Hall & Co., Ltd., and Ames and Finnis, bricks ; Ames and Finnis, roofing tiles ; Holland and Hannen and Cubitts, Ltd., and Wm. Knight & Co., Ltd., stone and stonework ; Stuart's Granolithic Co., Ltd., artificial stone and stairtreads ; Aston Construction Co., Ltd., and Haywards, Ltd., structural steel ; Haywards, Ltd., fireproof doors, iron staircases and patent glazing ; D. Anderson and Son, Ltd., roofing felt ; Joseph Chater and Sons, Ltd., glass ; Wenham and Fowler, cast lead ; Hollis Brothers & Co., Ltd., wood block flooring ; Granwood Flooring Co., Ltd., patent flooring ; J. H. Nicholson & Co., Ltd., central heating, boilers and ventilation and cloakroom fittings ; John Wright & Co., Ltd., stoves ; G. Matthews, Ltd., grates and mantels ; Davis Gas Stove Company, gas fixtures ; Electrical Installations, Ltd., electric light fixtures, electric heating and electric wiring ; Dent and Hellyer, Ltd., sanitary fittings ; Brookes, Ltd., terrazzo staircases and wall lining ; A. E. Davis, door furniture ; Crittall Manufacturing Co., Ltd., and John Gibbs, Ltd., casements and window furniture ; General Post Office, telephones ; G. J. Green and Sons, plaster ; G. and A. Brown, Ltd., decorative plaster ; Galsworthy, Ltd., ornamental grilles and special electric light fittings for assembly hall, balustrading to staircases and balconies throughout, etc. ; Cashmore Art Workers, wrought iron entrance gates ; Morris-Singer Co., metalwork ; Art Pavements and Decorations, Ltd., marble ; Conway & Co., tiling ; Waring and Gillow, curtains ; Gordon Stark, furniture ; Cutbush and Sons, Ltd., shrubs and trees ; Bennet Furnishing Co., Ltd., school fittings ; Warham Guild, church fittings ; Aldous and Campbell, Ltd., lifts ; Synchronome Co., Ltd., clocks.

Trade Item

The twenty-third annual general meeting of Messrs. W. H. Gaze & Sons, Ltd., of Kingston and London, was held on Wednesday, March 22, 1933. Mr. W. H. Gaze, who is 80 this year, and founded the business in 1885, was in the chair, and in the course of his remarks he said : "Our trading and work carried out during the past year amounts to £312,503, which is less than the previous year, when the amount was £550,964, showing a decrease of £238,461. This was brought about by the general depression in trade. I am able to report that the balance sheet for 1932 is in our favour, and that the directors are now in a position to recommend a dividend of 10 per cent. be paid on the Ordinary shares, in which are included the Employees' shares, less income tax."

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the SOUTHGATE U.D.C.: Eight shops and flats, Winchmore Hill Road, for Mr. C. W. Dennis; five houses, Wades Hill, for Messrs. Martyn (Builders), Ltd.; 34 houses (amended), Broadfields Avenue, for Mr. O. R. Davies; 54 houses, Wentworth Gardens, for Mr. J. Neilson; bus garage, Enfield West station, and shops, Bowes Road, for London Electric Railway Co.; cinema and seven shops, and eight shops with flats, Bowes Road, for Mr. W. J. King; 62 houses, Greenway, for Mr. C. E. Hartshorne; six houses, Firs Lane, for Mr. G. W. Newman; two houses, Eversley Crescent, for Mr. C. V. Longland; eight houses, Wades Hill, for Messrs. Reader Bros.

Plans passed by the WATFORD Corporation: Additions, 58-61 Bushey Mill Gardens, for Hillingdon Estate Co.; additions, Rickmansworth Road, for Messrs. Novobax, Ltd.; five houses, Copeswood Road, for Mr. W. McKibbin; two houses, Malden Road, for Messrs. Stimpson, Lock and Vince; eight houses, Hibbert Avenue, for Messrs. W. Judge and Sons; factory extension, High Street, for Grosvenor Electric Batteries, Ltd.; 24 houses, Stanborough Estate, for Messrs. W. Farren and Sons; additions, The Parade, for Messrs. Clements; four houses, Westfield Avenue, for Mr. S. Ruff; two houses, Liverpool Road, for Mr. C. Foster; factory extension, St. Albans Road, for Granose Food Co; three shops and flats, Chalk Hill, for Mr. L. G. Hartley; additions, transformer house, Tolpits Lane, for Messrs. Scammells; five cottages, Cardiff Road, for Messrs. W. J. Weller and Sons; four houses, Westfield Avenue, for Mr. J. F. Sleight.

SOUTHERN COUNTIES

Plans passed by the NEWBURY Corporation: Six houses, Greenham Road, for Messrs. F. and A. Cooke; two houses, Monks Lane, for Messrs. Allen and Roberts; two houses, Kingsbridge Road, for Mr. W. Samuels; two houses, St. Nicholas Road, for Mr. T. C. Pembroke; alterations, shop fronts, The Market Place, for Messrs. Daniel & Co.

Plans passed by the OXFORD Corporation: Two shops, 131-3 Oxford Road, Cowley, for Mr. J. Rush; eight houses, Oliver Road, Cowley, for Messrs. R. Gardner and Sons; two houses, Stapleton Road, Headington, for Mr. R. Ryman; two houses, Portland Road, for Mr. D. Mealing; alterations and additions, Parish Hall, Victoria Court, for St. Mary Magdalen trustees; two houses, Five Mile Drive, for Messrs. Hinkins and Frewin; development, Brasenose Estate, Cowley, for Mr. G. T. Gardner, on behalf of Isis Properties, Ltd.; two houses, Iffley Road, for Mr. G. H. Simmons; oil stores and offices, Rewley Road, for Shell-Mex, Ltd.; additions and operating box, Ice Skating Rink, Botley Road, for Oxford Ice Rink Co.; 92 houses, Brasenose Estates, for Isis Properties, Ltd.

Plans passed by the WORTHING Corporation: Six flats, Christ Church Road, two houses, Balcombe Avenue, three houses, Loxworth Avenue, house, Ashacre Avenue, seven houses, St. Andrew's Road, and three houses, Chesswood Road, for Mr. H. M. Potter; six houses, Brougham Road, and house, Warren Road, for Mr. A. T. W. Goldsmith; eight houses, Broadwater Road, two houses, Victoria Road, and 48 flats, George V Avenue, for Mr. M. R. Fletcher; alterations, Brunswick Hotel, Thorn Road, for Mr. E. Emerson; two houses, Hillside Avenue, house, Woodside Road, 12 houses, Broomfield Avenue, and house, Seldens Way, for Mr. E. J. Love; alterations, Queen Alexandra's Hospital Home, Boundary Road, for Mr. Clyde Young; two houses, Pembroke Avenue, for Mr. C. Parsons; two houses, Sea Place, for Mr. J. A. Lauchlan; three houses, Hailsham Road, for Mr. J. E. Lund; 14 houses, Ethelwulf Road, for Mr. R. G. Pierce; seven houses, Lavington Road, for Mr. H. Baker; 52 flats, Ardheal Road, for Messrs. J. A. Terry, Ltd.

EASTERN COUNTIES

The Herts. C.C. Public Assistance Committee has submitted revised plans to the Ministry of Health for alterations and improvements at Oster House Institution, ST. ALBANS, estimated to cost £21,945.

MIDLAND COUNTIES

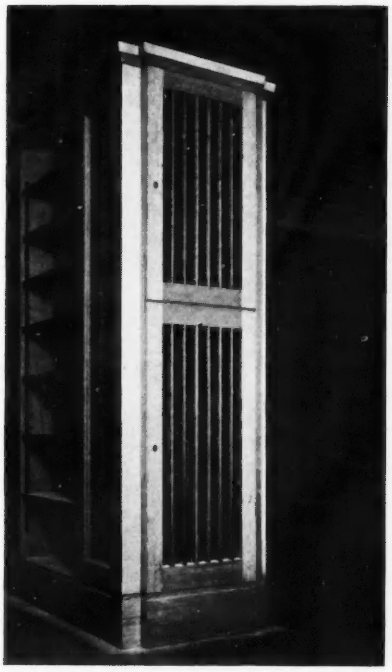
The SMETHWICK Education Committee has approved plans for alterations at Brasshouse Lane and Crocketts Lane schools, at an estimated cost of £11,000.

Plans passed by the STOKE-ON-TRENT Corporation: Ten houses, Bedford Street, Basford, for Messrs. Baddeley Bros.; two houses, Jubilee Road, for Mr. B. Garton; four houses, Penkull New Road, for Mr. F. Gibson; four houses, Oxford Street, for Burslem Co-operative Society, Ltd.; two houses, Drubbery Lane, for Mr. S. Simpson; 23 houses, Meir Residential Estate, for Mr. A. Perry; 36 houses, Shelton New Road, Hartshill, for Messrs. Holloway & Co; two houses, Out Lane, for Mr. N. Marsden; 40 houses, Victoria Square, for Col. H. Clive.

Plans passed by the SUTTON COLDFIELD Corporation: Ten bungalows, Boldmere Glebe Estate, for Corporation; 21 houses, Kineton Road, for Mr. John White; two houses, off Monkseaton Road, for Mrs. Hart; 12 houses, South Parade, for Mrs. S. E. Wright; two houses, Upper Clifton Road, for Mr. J. Salt.

NORTHERN COUNTIES

Plans passed by the MANCHESTER Corporation: Alterations, Frascati's Restaurant, Oxford Road; alterations, Clarendon Inn, Church Street; alterations and additions, Commercial Inn, Ogden Lane; alterations and additions, Corner Inn, Bradford Street; alterations, Wellington Hotel, Barlow Moor Road; alterations, Royal Exchange, Market Street.



A radiator casing terminating a projecting bookcase in the library at the Merchant Taylors' School, Northwood, Middlesex. The little balusters of the casing are oval in section. Other views of the building are given on pages 591-596 of this issue.

Plans passed by the SHEFFIELD Corporation: Four houses, Warminster Road, for Mr. D. Richerby; two houses, Arran Road, for Messrs. E. and W. Booler; two houses, Herries Road, for Mr. L. J. Garner; six houses, Hutcliffe Wood Road, for Mr. W. Bingham; six houses, Rotland Road, and two houses, Montgomery Road, for Mr. C. W. Alflat; two houses, Eccleshall Road, for Mr. H. E. Mottram; two houses, Chantrey Road, for Messrs. F. B. Skinner and Sons; three houses, Parsons Cross Road, for Mr. W. H. Rowan; three houses, Pingle Road, for Mr. J. Bailey; three houses, Cliffefield Road, for Mr. Hammett; four houses, Malton Street, for Mr. E. Gardham; two houses, Warminster Road, for Mr. C. G. Robinson; two houses, Louth Road, for Mr. Riley Watson; four houses, Wath Road, for Mr. E. C. Horton; 14 houses, Hutcliffe Wood Road, for Mr. W. Bingham; 20 houses, City Road, for Messrs. A. and E. Tate; 16 houses, Forres Street, for Mr. D. Topliss; two houses, Harley Road, for Mr. J. A. Wragg; four houses, Sheldon Road, for Mr. S. Martin; 24 houses, Addison Road, for Mr. C. S. Smith; house and shop, Hartley Brook Road, for Mr. H. Cook; 7 houses, Bellhag Road, for Mrs. D. Williams; four houses, Cawthorne Grove, for Mr. W. A. Wright; two houses, Rundle Road, for Mr. J. L. Conway; two houses, Lismore Road, for Mr. W. H. Kilner; 16 houses, Rivelin Valley Road, for Mr. J. Barker; two houses, Glossop Road, for Mr. J. A. Suckley; 30 houses, Bawtry Road, for Mr. A. Ramsay; four houses, Heeley Bank Road, for Mr. G. R. Parkin; six houses, Crawford Road, for Mr. H. Hammett.

The SHEFFIELD Corporation has passed the following development plans: New streets, off Gleadless Common, for Mr. A. Tate; Stone Delf extension, Fulwood, for Mr. J. W. Sivil; sewer extension, Meadow View Road, for Mr. F. Tinker; culvert, Bocking Lane, for Messrs. Wright and Walton and Mr. J. T. Redmile; new street off Hutcliffe Wood Road, for Mr. F. Crawshaw; Anns Road extension, for Duke of Norfolk.

Plans passed by the SOUTHPORT Corporation: 12 houses, Cromer Road, for Messrs. A. H. and E. W. Jackson; rebuilding, 26-8, Roe Lane, for Messsrs. Cook and Talbot; land development in Southbank Road, for Mr. W. J. Wright; eight houses, Waterloo Road, for Mr. W. Wright; shops, 36-8, Station Road, Ainsdale, for Mr. F. Whitehead; development in Park Street, for Mr. Gerald Rowe; house and shop, and two houses, Lytham Road, for Mr. A. James; workshops, Tulketh Street, for Mrs. E. Hague; club house extension, Hillside Golf Club, for Club Committee; alterations, Tudor Restaurant, Kingsway, for Restaurant Co.; land development, St. Luke's Road, for Mr. H. Buckey.

SCOTLAND

The GLASGOW Corporation has approved plans for internal alterations at the Nicholson Street Barracks, and Southern Police Buildings, to provide accommodation for at least 50 recruits, at a cost of £25,000.

Plans passed by the GLASGOW Corporation: Workshop, Crow Road, for Messrs. Thomas Stewart and Son; hall, Clydeview, Whiteinch, for Y.W.C.A. Committee; office and workshop, Muirend Road, for Messrs. A. & J. Clark; shop, Thornliebank Road, for Mr. John Keenan; 180 houses, Nether Auldhouse, for Messrs. Alexander M'Lellan and Co.; shops, Paisley Road West, and at Cardonald Estate, for Glasgow Estates Development Co., Ltd.; shop, Carntyne Road, for the Shettleston Co-operative Society.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen ; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11¼
B_1	Bangor	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid Counties	1 4½	1 0½
B	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S. Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11¼
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11¼
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_2	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6¾	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11¼
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11¼
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11¼
B_1	Yeovil	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"		2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long	per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES.	Per cent.		Per cent.
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2½
,, ,, 26 oz. ,, ,, ,,	,,					3½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	0

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5' 0" deep and cart away	,,		9	6
,, ,, 10' 0" deep and cart away	,,		10	0
,, ,, 15' 0" deep and cart away	,,		10	6
If in stiff clay . . . add	,,		3	0
If in underpinning . . . ,,	,,		5	0
Digging, return, fill and ram . . . ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork. Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1½" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1½" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½"	¾"	1"	1¼"	2"	4"
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 2	1 7	2 1	2 8	3 8	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 6
Do. to stop ends	,,	7	9	1 0	1 3	2 0	—
Boiler screws and unions	,,	3 6	4 0	5 6	8 0	—	—
Lead traps	,,	—	—	—	7 6	10 0	—
Screw down bib valves	,,	7 6	10 6	12 6	—	—	—
Do. stop cocks	,,	10 0	12 0	16 0	23 6	56 6	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

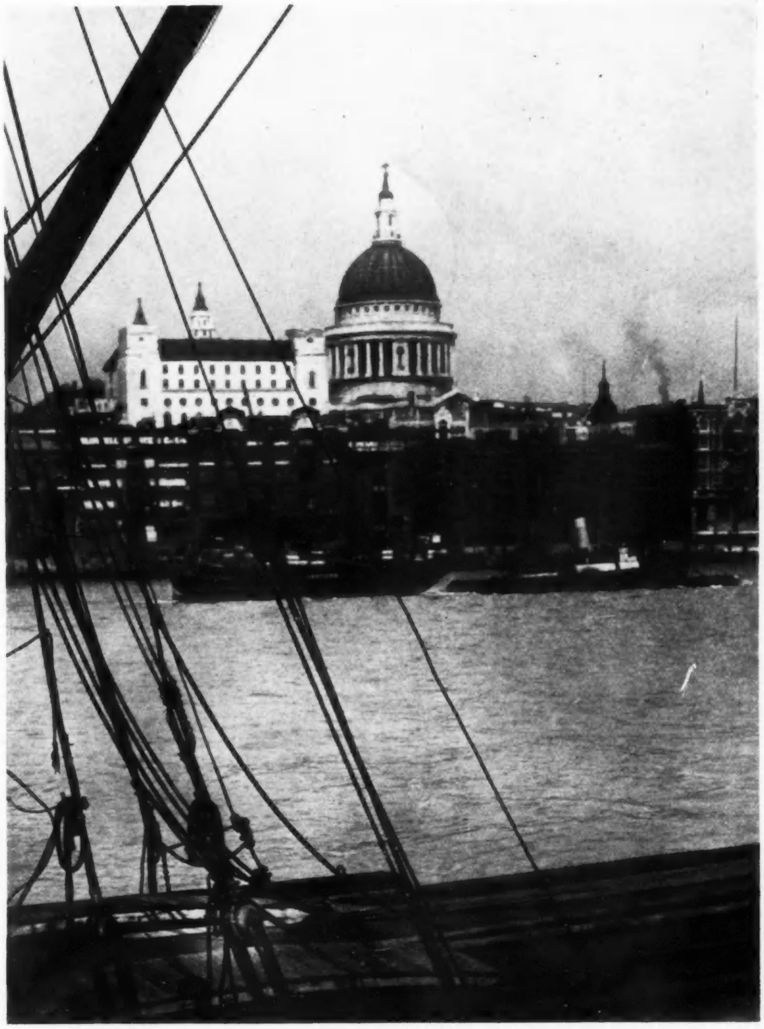
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	,,	2	9

FARADAY HOUSE, LONDON

THE NEW NEIGHBOUR OF ST. PAUL'S



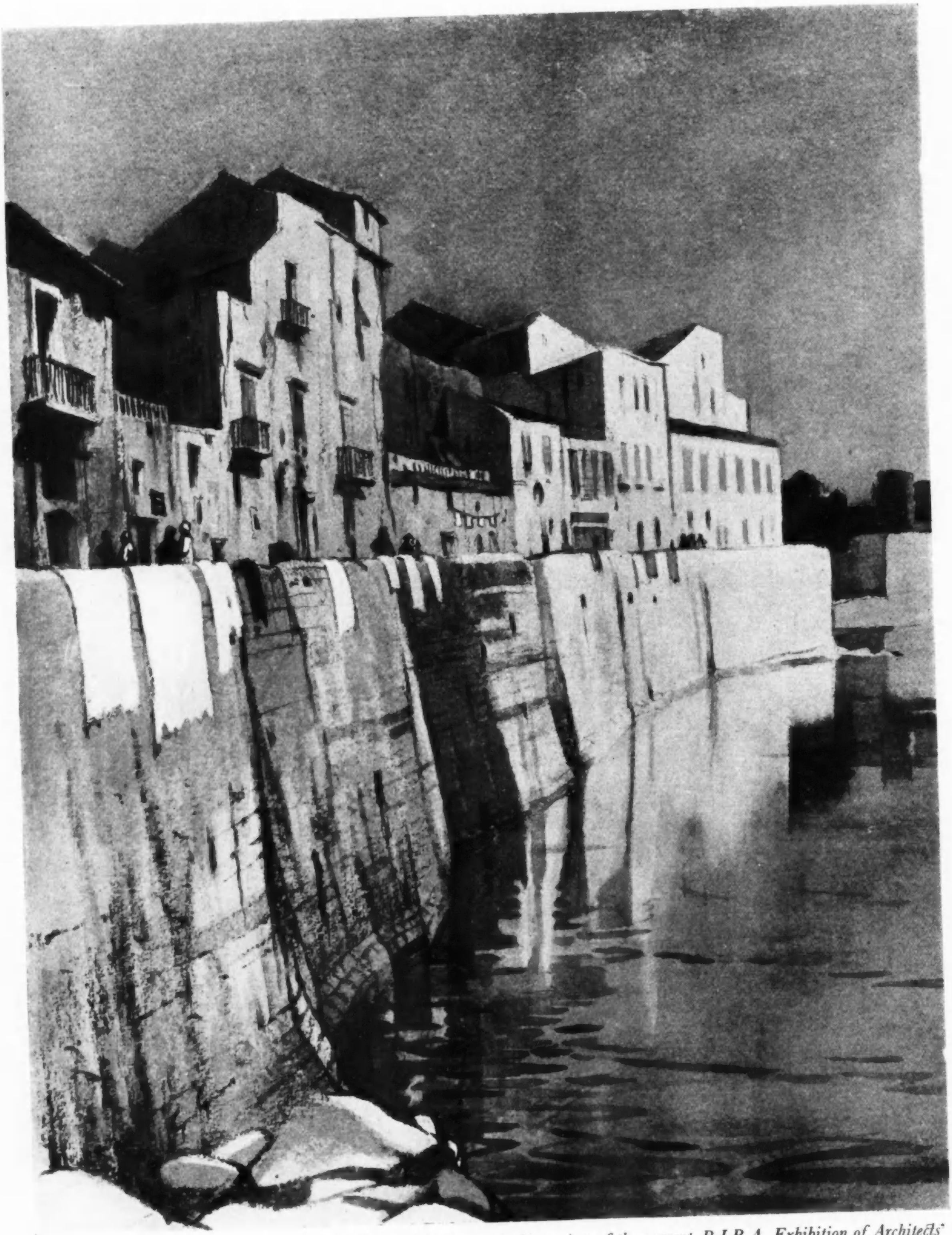
A VIEW from the south bank of the Thames of the International Telephone Exchange building, designed by A. R. Myers (H.M. Office of Works), and opened a few days ago by the Prince of Wales. In this week's leading article it is pointed out that, though in itself a notable contribution to modern London, it becomes, from the proximity of its site to St. Paul's Cathedral, one of those cases where wise planning would have intervened—this time on the vertical plane—to avoid the risk of eclipsing that "ancient landmark." But London remains unplanned, and Bureaucracy—in Carlton House Terrace and now in Queen Victoria Street—is a partner to its unplanning.

"This is the greatest blow to the good looks of the capital that has been struck for generations," writes James Bone in "The Manchester Guardian."

The public has a right to know :—

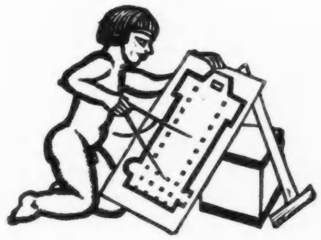
(1) why the L.C.C. height limit of 100 ft. was waived in favour of this building (130 ft.)?

(2) whether it is proposed to allow all buildings in this neighbourhood to go to the height of the Telephone Exchange?



AT THE R.I.B.A. EXHIBITION

Mr. J. D. M. Harvey, in his review of the current R.I.B.A. Exhibition of Architects' Sketches and Paintings, on page 629 of this issue, writes of the above watercolour: "'Syracuse,' by E. C. Bewlay, shows us that picturesque jumbles of Southern Italy present a clean gay face to the clean gay sea."



(SIGHT) LINE OUT OF ORDER

FARADAY HOUSE, the new telephone building in Victoria Street, was opened last week by the Prince of Wales, and the last clear view of St. Paul's Cathedral that had been left unobstructed by the March of Progress was closed. The building, which has been put up by the Office of Works for the Post Office, is in itself a notable contribution to modern London, with its four low towers and its slate roof between them. The architect is A. R. Myers, H.M. Office of Works.

By the erection of Faraday House London has gained a building and lost a view. How does it stand on the profit and loss account? It stands a loser to an incalculable extent. There are a thousand sites on which beautiful buildings might be, and ought to be, built. There is only one St. Paul's, and it is the greatest site of all. On the hill above the river the greatest of English architects made his greatest church, and the Office of Works has planted its box of electrical contrivances so that Englishmen will not be able to see their church. Wren built St. Martin's, Ludgate, to reveal the perspective of the Dome. The Office of Works has built Faraday House and destroyed it.

We are not, and never have been, fanatical about the preservation of ancient buildings simply because they are ancient. Architecture is a living art, and every generation must have its modernity. To cling, for example, to the pediment for ever because Pheidias made the Parthenon would be silly, and on all sides we can see today the proof that our modern architects are keeping architecture as alive as it ever was ; and in ninety-nine cases out of a hundred the twentieth century is right to tear down what has gone before. But the hundredth case is always there, and when we reach it, then we take an immovable stand. Not for all the modernity in the world, not for all the architectural profession, not for all the creation of employment, should the hundredth case be destroyed, and if ever there was a hundredth case it is the Cathedral of Paul. Westminster Abbey is another, and so is the Forum in Rome, and Stonehenge, and the Acropolis. Who would hang a sheet over a Velasquez simply because Manet and Picasso were more modern?

Faraday House is all the more alarming as it is the fruit of official, governmental action. This is no case of a private landlord, against whose " rapacity " and " Philistinism " there would be a strong and legitimate outburst of rage. It is the Office of Works, the custodian of Fountain's Abbey, of the Mint, of the Tower, of the National Gallery, and of all the treasures of the nation, that has done this thing. And it has done it without even consulting the Royal Fine Art Commission. Last year the Commissioners of Crown Lands secretly and swiftly destroyed the skyline of the Mall, but at least they went " through the motions," as the Army says, of consulting the Fine Art Commission. The Office of Works did not even do that. It worked as secretly and as swiftly as the Commissioners of Crown Lands, and paid as little heed to protests. The Carlton House Terrace Defence Committee, that amazing articulation of public indignation, was in favour of getting the Urban Crown Lands transferred to the control of the Office of Works. Would anyone today, who has vainly tried to peer at Wren's Cathedral round the edge of Faraday House, be in favour of transferring the Pot's responsibilities to the Kettle?

There is an L.C.C. regulation which limits the height of buildings in London to a hundred feet, unless some special case can be put forward for an increase of thirty feet. Whether the Office of Works can compel the L.C.C. to grant an increase, we do not know. The fact remains that for Faraday House it obtained an increase. The precedent has thus been set, by the custodians of the nation's treasures, by which private landlords can complete the work and make a ring of extra tall buildings round a site where extra tall buildings are out of place.

More than ever is it necessary for London to have its Vigilance Committee, to watch for the germs of vandalism before they grow, overnight, into a Vested Interest. The Carlton House Terrace Defence Committee must either remain in being as such a Vigilance Committee, or the Prime Minister's new Crown Lands Committee will have to take its place. The Fine Art Commission has proved a failure, not through any fault of its own distinguished members, but partly from its ineffective constitution and partly from the ingenious technique which the Bureaucracy has evolved of either using it as a camouflage for iniquity or paying no attention to it at all.

Town Planning is one of the most vigorous and hopeful children of the age, and today there is more effort being made by architects and local councils towards an establishment of sanity as a principle in the making of modern cities ; and yet, in London, greatest of cities, twice within a year we have seen two separate departments of the Bureaucracy deliberately, utterly and wilfully ignoring Town Planning and Sanity.

C. Lovett Gill, F.R.I.B.A., who has been nominated as the next President of the Architectural Association.

NOTES & TOPICS

COLOUR IN THE—FACTORY

WHEN Lord Rochdale, Lord Lieutenant of Middlesex, opened the new Hoover factory at Perivale last week, he said that in the North of England it wouldn't be recognized as a factory at all. He described it as being more like a child's dream of a fairy palace, in white, red and gold.

*

It is nine years since Professor J. B. S. Haldane wrote (in *Daedalus, or Science and the Future*) : " Before long someone may discover that frescoes inside a factory increase the average efficiency of the workers by 1.03 per cent. and art will become a commercial proposition once more."

*

It is nine years since I heard a grand old man of industry truculently defending the barbarian outlook on factory amenities. He was speaking at one of those self-conscious public luncheons organized by people who believe that unplanning is an Englishman's birthright. " Sloppy humanitarianism has ruined British industry," he said.

*

He wasn't going to make his factory like a confounded drawing room, he wasn't. Work was something that had to be done. It wasn't something to be enjoyed.

*

This archaic obstructionist had always regarded industry as a state of conflict. Fighting labour. Fighting social legislation. Fighting competition.

*

Ah well, Nature in the raw is seldom mild !

*

" Prosperity in war," writes H. J. Massingham, " means penury in art ; they do not breathe the same air. . . ." Is our backwardness in industrial art due partly to the bleak atmosphere of conflct that still haunts industry ?

*

I was talking a few days ago to a manufacturer whose products are a felicitous example of design in partnership with industry. I went through his factory afterwards. It was not one of those old family factories where everybody calls the managing director " Alf," but it was pervaded by friendliness and technical enthusiasm, as opposed to mere privileged mateyness or disciplined hostility.

*

Incidentally this factory provided a civilized background for work. It was an agreeable background, not because its owner thought it paid to make it so, but because he possessed the spirit that has given England its leaders in the past—the spirit that does not permit a man to ask other men to do what he is not prepared to do himself.

*

A COAT WITHOUT ARCHITECTURE

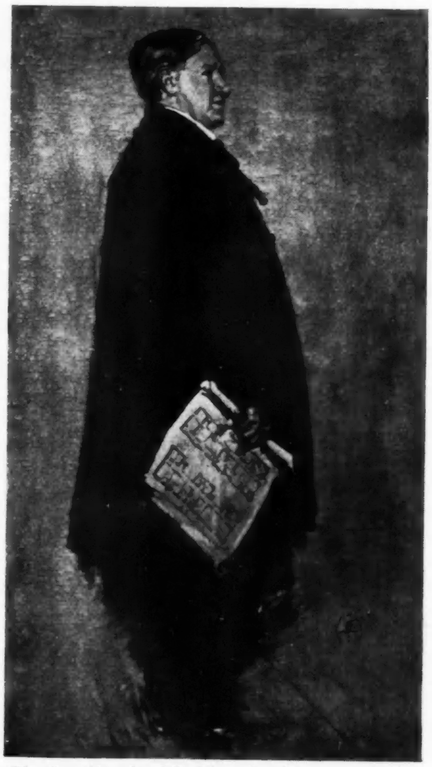
Poor Sir Raymond Unwin ! *The Tailor and Cutter* doesn't like the picture of him in the Academy. " The coat is formless and without any signs of architecture. Lapel is badly moulded, while collar and tie expose too much of a columnar neck." Well, well, well !

*

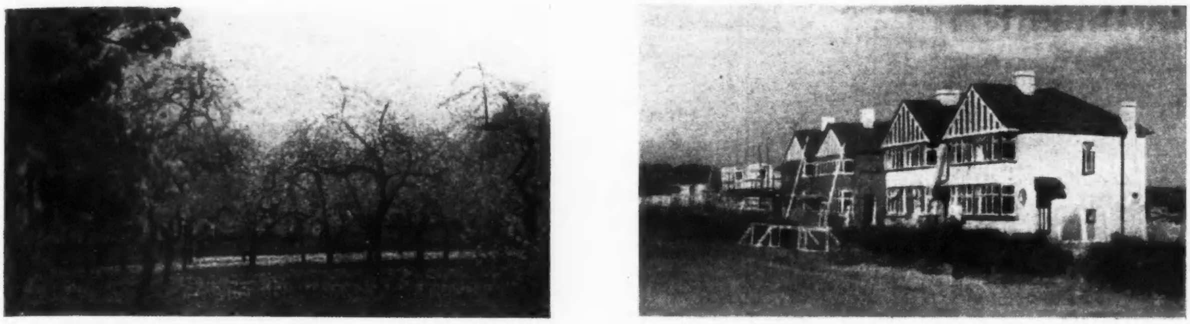
And yet if the President of the R.I.B.A. cannot have a " columnar neck " (and show it too) who can ? Were we not brought up on columns ? Had the complaint been of the unfamiliar design of capital and abacus I could have understood it.

*

I am offering a prize for a design for a suiting appropriate to the P.R.I.B.A. It must, of course, be architectural in character, and although the widest freedom is allowed, the ensemble should be modernistic in idea, but must not offend the traditionalists. Neck ruffles are barred (in case of acanthus), but special attention will be paid to softening down the unduly functional necking.



Charles Rennie Mackintosh, from a painting by Fra H. Newbery, now on exhibition at the M'Lellan Galleries, Glasgow. The exhibition, in memory of the late Mr. and Mrs. Mackintosh, will remain open until May 31.



A correspondent sends us a cutting from an estate advertisement, with the caption "this orchard setting . . . . for these houses . . . ." in which these two pictures appear. His comment is : "A new puzzle for architects—find the orchard." (No prize is offered for solutions ; for other valuable prize competitions see below.)

Designs must be submitted by June 1. The jury will consist of myself and the editor of *The Tailor and Cutter*, but I shall decide by myself. Prize : a spinning jenny.

*

I GIVE MY READERS ANOTHER BIG CHANCE

I have another big chance for readers up my sleeve. Last week I went to one of the most surprising estates in England—Smethwick Old Hall.

*

It lies near the village, and my host took me over the old inn in whose basement a store of ancient cutlasses was found not so long ago, one of which remains in his possession.

*

It wasn't the cutlasses that surprised me, nor the size and extent of the Old Hall buildings, nor the school my host's forbear built for the children of his tenants, nor the stables —but the cows.

*

Why did the cows surprise me ? I will offer a prize of half a corona to any reader who can tell me where I have been.

*

THE INSOLATION OF HOSPITALS

The report of the Joint Committee on the Orientation of Buildings was published last year in the R.I.B.A. *Journal* (see also *A.J.*, September 21, 1932). I am glad to find this important piece of research work into almost unexplored country is now, together with the appendices, to be had in book form at the reasonable price of five shillings.

*

While acoustics are recognized as a vital branch of architecture, the science of insolation has been until now without any established technique, and the co-ordination of the scattered data here reduced to diagrams and tables will be of great value.

*

Of the various instruments used by the Committee to predetermine the measurement of sunshine, the heliodon will probably be used most by the ordinary architect on account of its simplicity. Its form and use were described in the issue of the JOURNAL for February 8 last, p. 214.

*

Section III deals with the practical problems of hospital, school and general design. The remarks with regard to hospital ward planning have already been subjected to criticism and, as there emerge two schools of thought with definite and divergent views, further research on hospital insolation seems necessary before any final recommendation can be made. On the other hand, the Town Planning Section, with its appendix on the insolation of street façades, is very clear and complete.

AT BRIGHTON BY THE SEA

Economy has its curious manifestations. The provision of schools and housing is not considered sufficiently vital to open national purse strings. We can economize on children and the houseless. But nothing stands in the way of our seaside resorts' determination to make England fit for holiday makers. I am not opposed ; far from it, but it has its humours, has it not ?

*

Brighton, having built an Aquarium underground, rising now with greater boldness to the surface, proposes to roof in a portion of the windswept terraces that cover the Aquarium, to make a concert hall and indoor lounging place as still another attraction for the leisured visitor.

*

They propose to adopt certain ideas from Dutch practice, notably a system of sliding glass roofs. I hope to goodness they will adopt a measure of good Dutch designing. So many of our seaside schemes are all ideas and no design.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, May 10

R.I.B.A., 9 *Conduit Street, W.*1. Exhibition of architects' sketches, etchings, oil and water-colour paintings. Until May 22. 10 a.m. to 8 p.m. (Saturdays 5 p.m.). 10 *a.m.*

*ROYAL ACADEMY, Burlington House, Piccadilly, W.*1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m.

ARCHITECTURAL ASSOCIATION, 34, *Bedford Square, W.C.*1. Exhibition of photographs, etc., depicting the progress of air travel. Until May 25. 10 a.m. to 10 p.m. 10 *a.m.*

MUNICIPAL SCHOOLS OF ARTS AND CRAFTS, Birmingham. At the Museum and Art Gallery. Exhibition of students' work. Until May 24. 10 a.m. to 5 p.m. (8 p.m. on Wednesdays). 10 *a.m.*

Thursday, May 11

*SOCIETY OF ANTIQUARIES, Burlington House, Piccadilly, W.*1. "The Excavations at Ur." By C. Leonard Woolley. 8.30 *p.m.*

*INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, W.C.*2. Annual General Meeting. 6 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, 10, *Upper Belgrave Street, S.W.*1. Discussion on "A Structural Steel Review," to be opened by H. V. Crabtree. 6.30 *p.m.*

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*2. Annual Reception by the President, Mr. A. B. Knapp-Fisher, F.R.I.B.A., and Mrs. Knapp-Fisher. 8.30 *p.m.*

Saturday, May 13

Sunrise 5.12 a.m. Sunset 8.41 p.m.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. Visit to Chingford Old Church and the New Parish Church. Conductor : C. C. Windmill, F.R.I.B.A. Meet at Old Church. 2.30 *p.m*

LONDON SOCIETY. Visit to Old Parish Church of St. Mary, St. Marychurch Street, Rotherhithe, S.E.16. 3 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

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Astragal breaks out into little competitions of his own 613

At tonight's meeting of the Southwark Borough Council the proposed new Town Hall will come up for consideration 616

Messrs. Howard Robertson and Wells Coates engage in correspondence on the question of English participation in the International Congresses for Modern Architecture 623

New buildings which are not in conformity with the Town and Country Planning Act may have to be pulled down 625

Architects ought to have legal right of action against anyone disfiguring their handiwork by poster or sign erection 634

Working-class tenements of from three to five stories cost ordinarily from 12s. to 15s. per square foot of floor area 636

●

BUILDING PRICES

There has been a curious hardening of building prices, especially in connection with timber, during the past three weeks. Some attribute this to the embargo on Russian timber, but a more probable explanation is that there has been a very distinct improvement in building work generally, not, of course, sufficient to reduce substantially the number of unemployed, but enough to increase the immediate demand for Scandinavian timber. But as soon as the ice is fully broken round the Scandinavian countries, it is thought that the cost will again drop.

PLANNER-ECONOMIST

The Town and Country Planning Act, 1932, was the subject of a paper read by Mr. I. G. Gibbon, C.B., C.B.E., at a meeting of the Chartered Surveyors' Institution on Monday night. Mr. Gibbon emphasized that the groundwork of a sound plan must be economic. " It must minister to the prosperity of the district. The planner must be more than a little of an economist—and thus rank himself, if not among the major prophets of our modern Press, at least among the minor."

The Special Committee for Public Relations of the Building Industries National Council point out that their " Build Now " campaign will not be really complete until everyone connected with the Building Industry takes it up as a personal matter.

The Committee suggest the following lines of personal action. 1: Urge the resumption of postponed building schemes in the Press. 2: Ask your Local Authority to proceed with its postponed schemes. 3: Approach your local Member of Parliament on the question of public works and postponed schemes. 4: Urge on every possible occasion that now is the time to build. *5: Urge your Local Authority to prepare plans for new works which are needed in its area. 6: Support the " Build Now " campaign of the Special Committee for Public Relations.*

In this way, supporters of the work of the Committee can give the " Build Now " campaign the benefit of their special knowledge of local affairs and conditions, and commence a cumulative movement all over the country.

Subscriptions to the fund should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

MR. KNAPP-FISHER

Mr. A. B. Knapp-Fisher, F.R.I.B.A., has been appointed to the Professorship of Architecture at the Royal College of Art, South Kensington.

PRESERVING STEEL-WORK

Sir Edwin Lutyens, R.A., discussing functional architecture at a meeting of the Oxford Architectural Club last week, said " it may be that there will soon be discovered some method of preserving steel-work without burying it deep in concrete—a spray of some preserving material, so that we may use steel as the men of old used their timber, and with a 'half-ironed' house we may again express our architecture through the medium of its construction."

The modern car and iron ship now seem to be the inspiration of originality, and our buildings sometimes appear as top-hampered lids of liners superimposed on concrete boxes, punctured with the streamline windows of a moving car and the use of hard materials that, in reflecting light, destroy all unity of the landscape wherein they are placed. Even the old English trees are callously let go, and quick-growing varieties from foreign soils are planted. I believe we shall retract our ways before it is too late.

F. Morrall Maddox, F.R.I.B.A., who has just been re-elected president of the North Staffordshire Architectural Association.

THE HOUSING BILL

The Minister of Health conferred last Friday with representatives of the National Association of Building Societies, who were introduced by Sir Enoch Hill, J.P., Sir Harold Bellman and Mr. Walter Harvey.

The object of the conference was to enable the Minister to discuss with the Association the steps to be taken to give effect to the proposals for the building of houses to let, with the assistance, where needed, of loans from the building societies under the guarantee scheme contained in the Housing Bill now before Parliament.

The Minister suggested that the Association should take steps to bring the exact nature and possibilities of the proposals in the Bill to the notice of all their constituent Societies and to stimulate their co-operation with the local authorities and the building trade in using the new provisions to the maximum advantage, and discussed with the representatives of the Association present the best ways in which those objects could be secured.

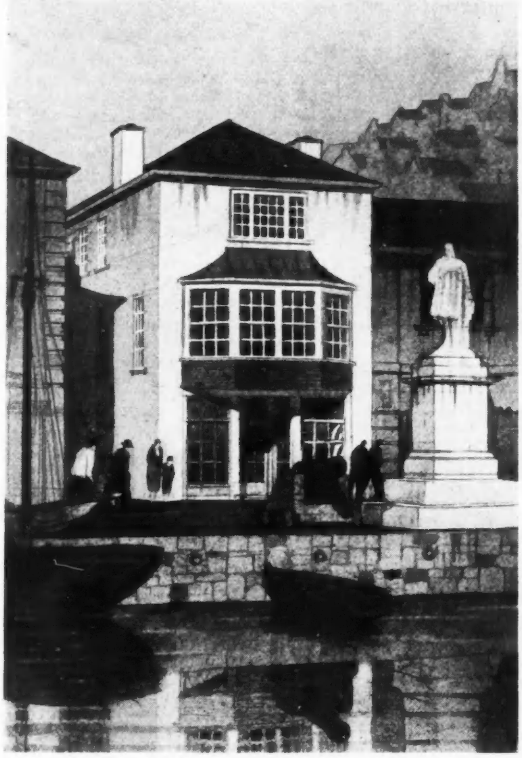
The representatives of the Association assured the Minister that they would bring to the notice of all the individual societies the scope of the new proposals and the importance of operating them actively.

NOTTS., DERBY AND LINCOLN ARCHITECTS' MEETING

At the seventieth annual general meeting of the Nottingham, Derby and Lincoln Architectural Society last week, Mr. Charles H. Calvert, F.R.I.B.A., was elected president in succession to Mr. T. Cecil Howitt, F.R.I.B.A. Mr. Claude Howitt, A.R.I.B.A., whose father was president of the Society from 1894-6, was elected vice-president. The other officers were appointed as follows :—

Hon. secretary : Mr. H. H. Goodall, L.R.I.B.A.; hon. librarian : Mr. R. Spencer, L.R.I.B.A. ; Council : Messrs. C. H. Ashlin, A.R.I.B.A. ; B. E. Hughes, L.R.I.B.A. ; T. C. Howitt, F.R.I.B.A. ; A. E. Eberlin, A.R.I.B.A. ; J. Wollatt; B. Jessop, A.R.I.B.A. ; W. G. Watkins, F.R.I.B.A. ; W. H. Golightly, and P. Gerard.

The retiring president (Mr. Howitt), in his address, said the " reason our small designs have not been accepted may be that people do not like architects' houses ; we must design houses people will like."



Beach House, Brixham. By Herbert F. Rea. From The Royal Academy Exhibition (No. 1467).

LORD MOYNE'S HOUSING COMMITTEE

The Departmental Committee that has been set up under the Chairmanship of Lord Moyne to consider what further steps are necessary or desirable in connection with housing, has already received evidence from Lord Eustace Percy, M.P., and Sir Raymond Unwin. Lord Moyne is endeavouring to receive all the evidence this month with a view to issuing an early report. The Committee finds itself, however, limited by the terms of reference, for it can only recommend steps to be taken that are possible "without public charge." How any action can be taken, either through local authorities or through the Ministry of Health itself, without entailing some kind of expense, is a conundrum which members of the Committee are trying to solve. This, of course, applies to the National Housing Corporation. The Committee is busy considering, not how the Housing Corporation would work, but whether the terms of reference of the Committee allow the Committee to consider how the Housing Corporation would work.

MANCHESTER SCHOLARSHIPS

The Manchester City Council is again offering a number of scholarships tenable in the Faculty of Technology of the University of Manchester. Successful candidates are required to follow a full-time course leading to the degree of Bachelor of Technical Science in the College of Technology; and Matriculation or its equivalent is an essential qualification.

For students who have been engaged in industry, and who have attended part-time day or evening classes, the scholarships are of the value of £100 per annum, while for students leaving Secondary or Central Schools the value is £60. Both classes of scholarships are tenable for three years.

SLUM CLEARANCE AT CARDIFF

The Cardiff City Council decided last week upon a scheme for the clearance of slums in the centre of the city and the construction of a bus centre to cost £250,000.

IRISH ARCHITECTURAL ASSOCIATION

Mr. H. V. Millar, M.R.I.A.I., has been elected president of the Architectural Association of Ireland, in succession to Mr. Manning Robertson. Other officers are as follows :—

Vice-President, Mr. E. A. Barrett, M.R.I.A.I.; Committee, Messrs. E. D. Buckley, W. H. H. Cooke, C. J. Clarke, J. A. Doyle, V. Kelly, D. M. O'Dwyer, F. J. O'Neill, E. R. Sheridan and Miss S. M. Tisdal; hon. librarian, J. J. O'Gorman; hon. treasurer, Mr. T. F. Inglis; and hon. secs., Messrs. H. T. Coleman and G. C. Henry.

SOUTH WALES ARCHITECTS' VISIT

The second evening visit arranged jointly by the South Wales Institute of Architects, Central Branch, and the Welsh School of Architecture, took place on Wednesday, May 3, when a large party of architects and students of architecture visited the Llandough Hospital.

The visitors were first shown the working drawings of the kitchen and were then conducted round the various buildings by Mr. E. C. Morgan Willmott, F.R.I.B.A., the architect for the hospital. The complete scheme, it was pointed out, is intended to provide for 1,000 patients, but the present buildings accommodate 340 patients in five two-story blocks. At the conclusion of the visit, Mr. Willmott was thanked by Mr. Percy Thomas, O.B.E., F.R.I.B.A., and Mr. W. S. Purchon, M.A., A.R.I.B.A.

TEESSIDE ARCHITECTS' MEETING

At the tenth annual meeting of the Teesside Branch of the Northern Architectural Association, held at Stockton, the following officials were elected:

Chairman, Mr. George P. Stainsby, F.R.I.B.A.; vice-chairman, Mr. J. R. Weatherill; hon. secretary, Mr. Arthur Harrison; assistant hon. secretary, Mr. Matt Trotter.

EMPIRE STATE BUILDING

On Wednesday last, at the Architectural Association, Mr. W. Smith Rollo, A.M.I.MECH.E., A.M.I.E. (India), of Messrs. Waygood-Otis, exhibited and explained an interesting film showing the manufacture of steel, and the construction and lift equipment of the 1,252-foot Empire State Building, New York.

CHANGES OF ADDRESS, ETC.

Messrs. Le Maitre and William and Segar Owen, Architects and Surveyors, have removed their offices to 3, Pump Court, Middle Temple, E.C.4. Telephone No.: Central 1716.

Mr. Harold Greenwood, A.I.A.A., has removed his offices to 39 St. James's Street, S.W.1. Telephone No.: Regent 1045.

The partnership of Cayley and Jarvis, architects, of 34, High Row, Darlington, has been dissolved by mutual consent, and the practice will be continued at the same address by Mr. H. E. Jarvis, A.R.I.B.A.

STRUCTURAL ENGINEERS

The first summer meeting of the Institution of Structural Engineers is to be held in Birmingham from June 14 to 16. On the first day Mr. A. H. S. Waters, M.INST.C.E., will be installed as president in succession to Mr. E. C. P. Monson, F.R.I.B.A.

R. I. B. A.

THE ANNUAL CONFERENCE

Particulars of the annual conference of the R.I.B.A. and Allied and Associated Societies, to be held at Cambridge from June 21 to 24, have just been issued by the Institute.

Following is a summary of the proceedings :—

WEDNESDAY, JUNE 21, 8 p.m. to 11 p.m.—Annual Reception in the Hall of Peterhouse, Cambridge.

THURSDAY, JUNE 22, 10.30 a.m.—Inaugural Meeting at the Guildhall. Inaugural address by the President of the R.I.B.A., to be followed by short addresses by Messrs. A. Beresford Pite, M.A.(HON.)CANTAB., F.R.I.B.A., and Geoffrey Webb, M.A.CANTAB. 2 p.m. — Conference Photograph. 2.30 p.m.—Four alternative visits. 5.15 p.m. to 7.15 p.m.—Reception by the Rt. Worshipful the Vice-Chancellor of the University of Cambridge, at the Fitzwilliam Museum.

FRIDAY, JUNE 23, 9 a.m. to 5.45 p.m.—Six alternative charabanc tours. 7 p.m. for 7.30 p.m.—Conference in the Hall of Trinity College.

SATURDAY, JUNE 24.—Informal visits.

FINAL AND SPECIAL EXAMINATIONS

The following are the dates on which the forthcoming R.I.B.A. Examinations will be held :—

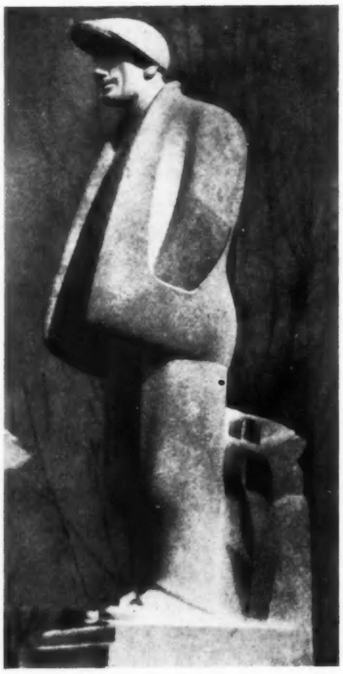
Final Examination : July 5, 6, 7, 8, 10, 11 and 13, 1933 (last day for applications : June 7).

Special Examination : July 5, 6, 7, 8, 10 and 11, 1933 (last day for receiving applications : June 7).

R.I.B.A. STATUTORY EXAMINATION

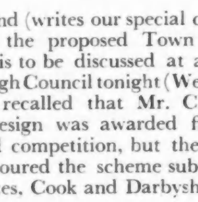
The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Act, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 11, 12 and 13, 1933.

The closing date for receiving applications for admission to the Examinations, accompanied by a fee of £3 3s., is September 20. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.



The Unemployed Man, by Gordon Herickx, recently exhibited at an exhibition organized by the Birmingham Craftsmen's Club.

COMPETITION NEWS



SOUTHWARK TOWN HALL

I understand (writes our special correspondent) that the proposed Town Hall for Southwark is to be discussed at a meeting of the Borough Council tonight (Wednesday). It will be recalled that Mr. C. Cowles-Voysey's design was awarded first place in a limited competition, but the Borough Council favoured the scheme submitted by Messrs. Yates, Cook and Darbyshire.

STOKE NEWINGTON : MUNICIPAL BUILDINGS

The Council of the Metropolitan Borough of Stoke Newington have authorized the holding of a competition for Municipal Offices and extensions to the Library and Electricity Offices. Conditions have not yet been drawn up.

Competitions Open

May 30.—Sending-in Day. Royal Society of Arts Competitions for Industrial Designs. The Secretary of the Society, John Street, Adelphi, W.C.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

June 3.—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums : £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

September 21.—Proposed Town Hall for the Borough of Hornsey. Open to architects of British nationality. Assessor : C. Cowles-Voysey, F.R.I.B.A. Premiums : £350, £250 and £150, for the designs placed first, second and third, respectively. Applications for conditions, etc., should be made to E. B. Croasdell, Town Clerk, Town Hall, Highgate, N.16. Deposit £1 1s., returnable on receipt of a bona-fide design or return of the conditions within four weeks before the date for submitting designs.

No Date.—Proposed Town Hall for the Portstewart U.D.C., Co. Londonderry. Open to architects practising in Northern Ireland. Assessor : R. H. Gibson, F.R.I.B.A., President of the Royal Society of Ulster Architects. Premium 50 guineas. Conditions of the competition may be obtained on application to Mr. F. Martin, Town Clerk, Portstewart. Deposit £1 1s.

Competition Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor : H. S. Goodhart-Rendel, F.R.I.B.A. Premiums : £150, £100 and £50. Conditions have not yet been drawn up.

The late A. M. Mackenzie

We regret to record the death of Mr. Alexander Marshall Mackenzie, R.S.A., F.R.I.B.A., LL.D., which took place on Thursday last at Culter House, Aberdeenshire, in his eighty-sixth year.

Mr. Mackenzie was articled to James Mathews, of Aberdeen, and was assistant to David Bruce, R.S.A., of Edinburgh. His chief work was the extension of Marischal College, which was opened in 1906 on the occasion of the quatercentenary of Aberdeen University, and was erected at a cost of £30,000.

He was also responsible (in conjunction with his son, A. G. R. Mackenzie, F.R.I.B.A.) for Australia House and the Waldorf Hotel, London ; Hursley Park, Hants. ; Aberdeen War Memorial ; and Cowdray Hall, at Aberdeen Art Gallery.

Recent Wills

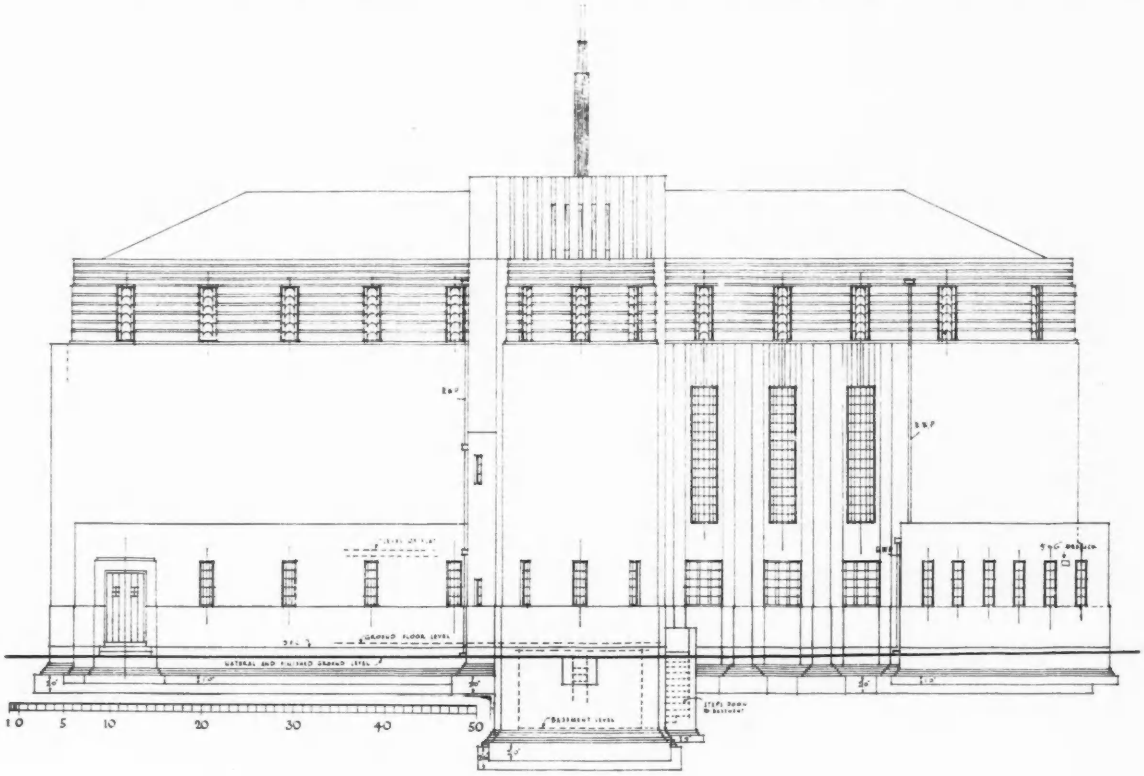
Sir Thomas Manly Deane, R.H.A., of Penmaenmawr, formerly of Dublin, architect, left £4,647 (net personalty £3,737).

Mr. Percy B. Tubbs, F.R.I.B.A., of Eaton Mansions, Sloane Square, left £81,080 (net personalty £22,802). His legacies included £200 to the Architects' Benevolent Fund ; and £100 to the Artists' General Benevolent Fund.

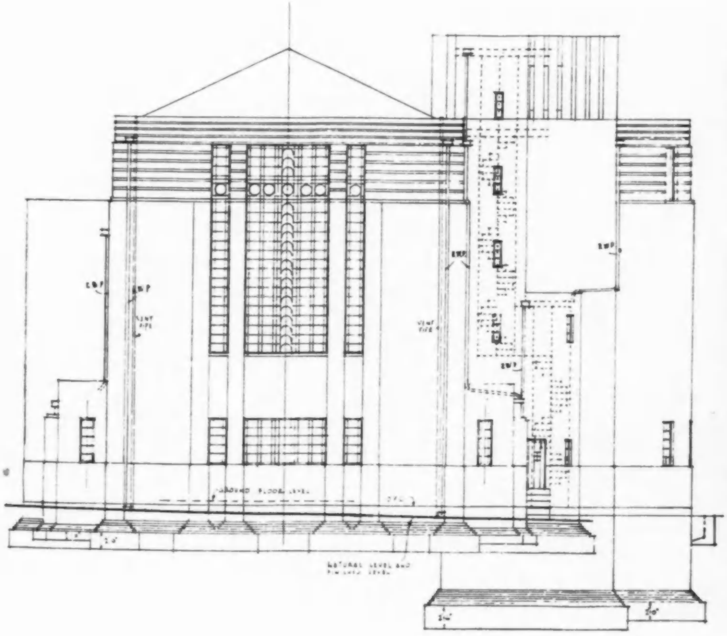
ON THE AIR

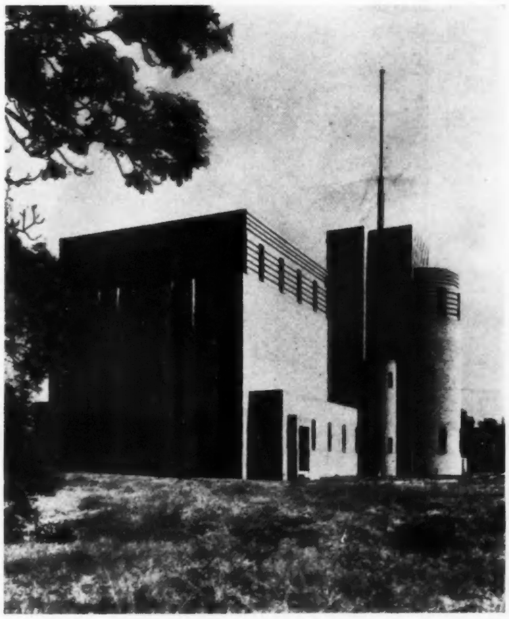
On Tuesday next, May 16, the fifth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Miss Elizabeth M. Denby and Mr. Geoffrey, who will discuss " The Kitchen."

SAINT NICHOLAS CHURCH, BURNAGE


GROUND FLOOR LEVEL
NATURAL AND FINISHED GROUND LEVEL
BASEMENT LEVEL
STEPS DOWN TO BASEMENT
1 0 5 10 20 30 40 50

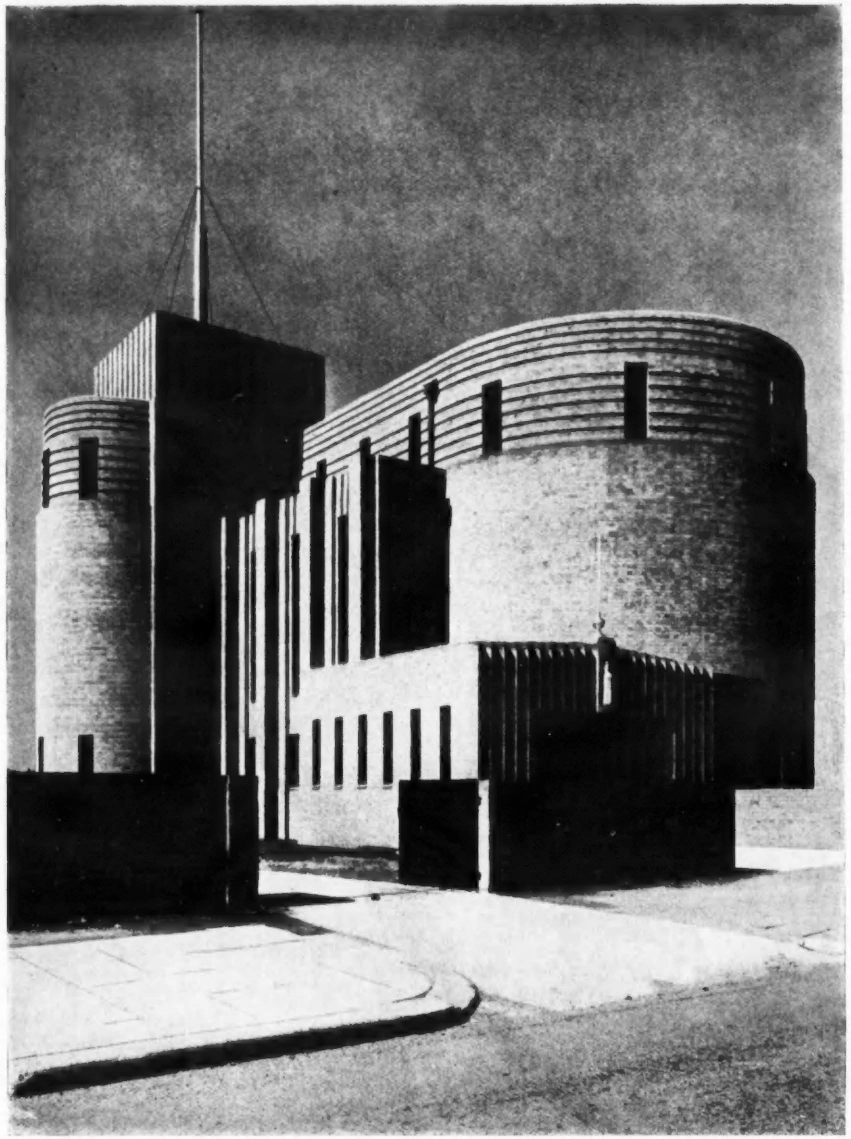
The drawings reproduced on this page are of the south elevation, in which the tower occurs, and of the west end. Both are to the same scale, and so is that of the east end, appearing overleaf.

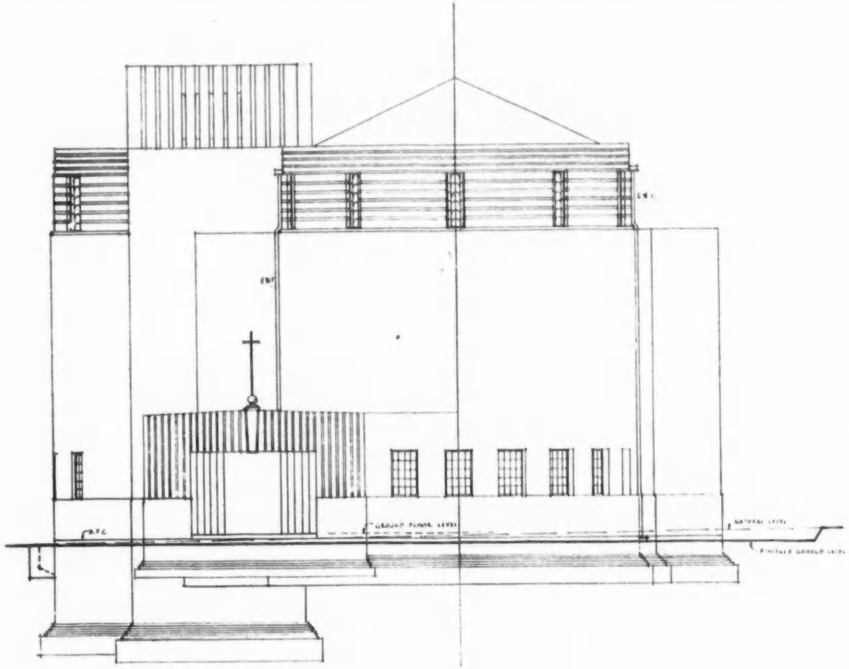

GROUND FLOOR LEVEL
NATURAL LEVEL AND FINISHED LEVEL



BY WELCH, CACHEMAILLE-DAY AND LANDER

ST. NICHOLAS CHURCH, BURNAGE, NEAR MANCHESTER

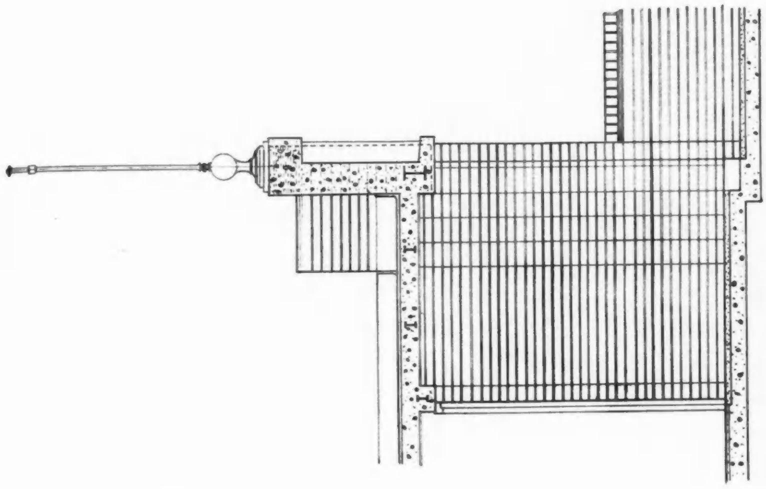


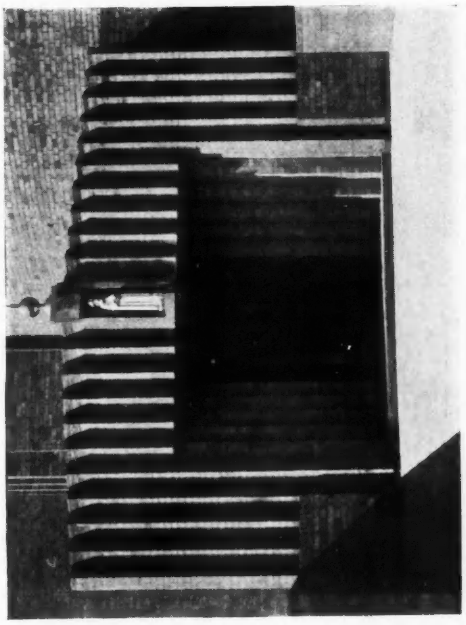


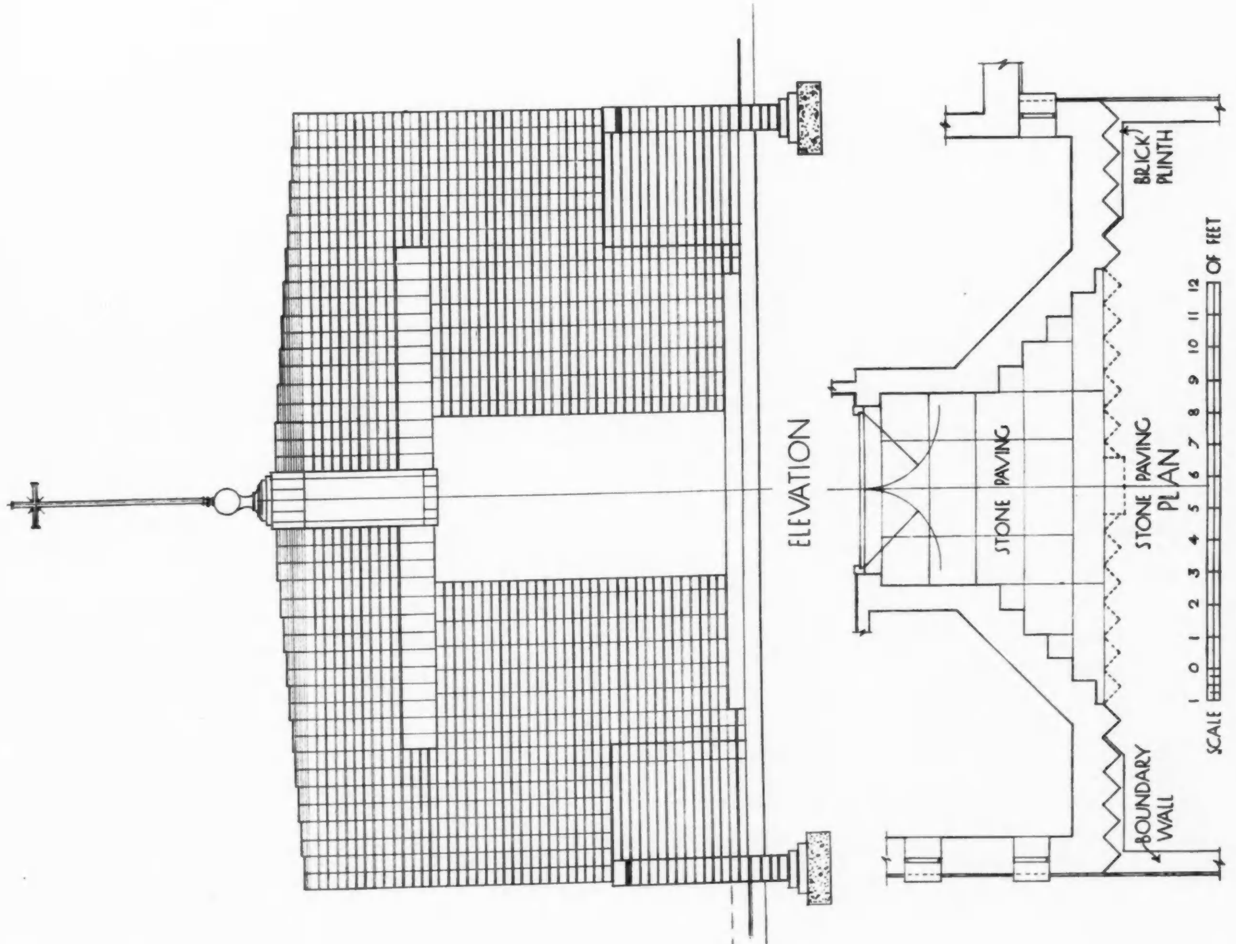
The illustrations on these two pages show the eastern end in general, and its main entrance in detail. The walling of the church is in Lincolnshire yellow-grey bricks, 3 ins. on the exterior, 2⅝ ins. on the interior; most of the internal surface is finished with hydrated lime plaster, untinted.

The site extends westward at right angles from Kingsway, a new arterial road running south out of Manchester; the axis of the plan (see page 621) is, of course, east and west. The two conditions thus arising are satisfied in a way that makes interesting planning of the east end. Porch and semi-cylindrical apse adjoin and are of similar depth. The former is one story in height, and from it access is given to the church by a corridor alongside the chancel. Over the corridor is the organ and choir gallery, and over the vestries that occupy the apse at ground level is the Lady Chapel, which thus appears directly above and behind the altar as seen from the nave. The photographs on pages 620-1 show the effect.

All the seating is in the nave; the aisles are merely passages one story high. Steel trusses support the roof over the comparatively wide span; the ceiling is of wood beams and wallboard, roofed with small grey slates. The nave is floored with wood blocks, the chancel with tiles to match the brickwork.

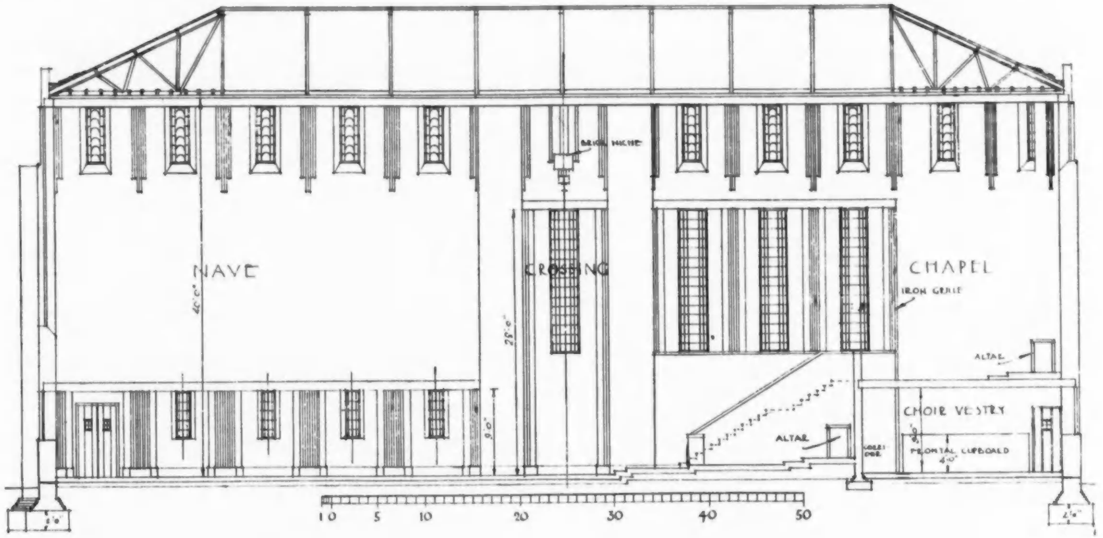


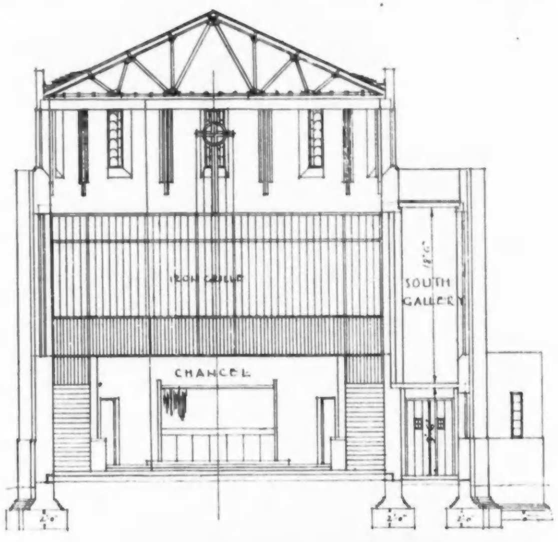


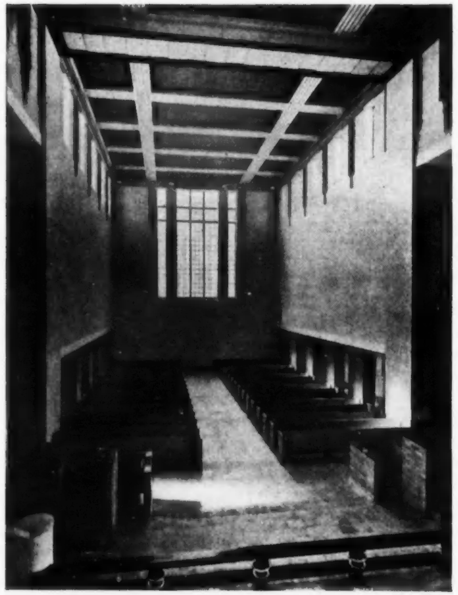

ELEVATION
STONE PAVING
STONE PAVING
PLAN
BRICK PLINTH
BOUNDARY WALL
SCALE
1 0 1 2 3 4 5 6 7 8 9 10 11 12
OF FEET

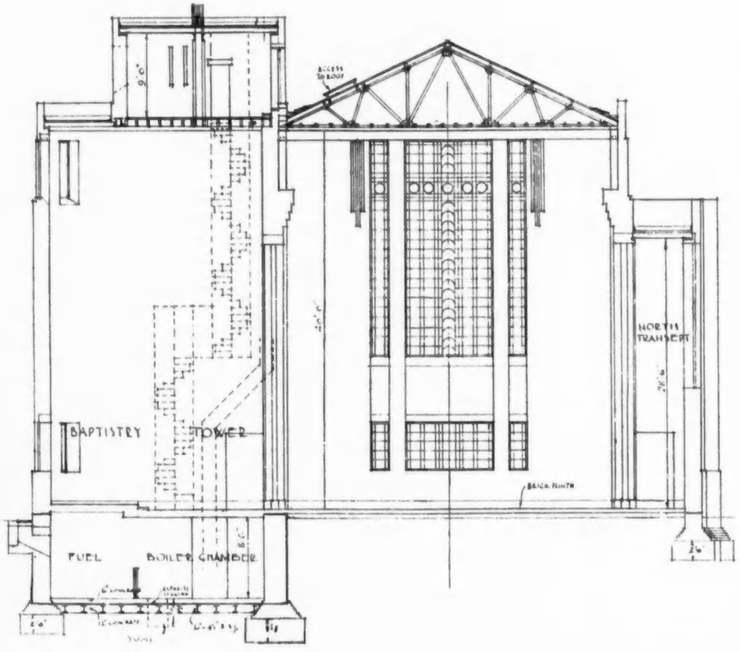
DESIGNED BY WELCH, CACHEMAILLE-DAY AND LANDER

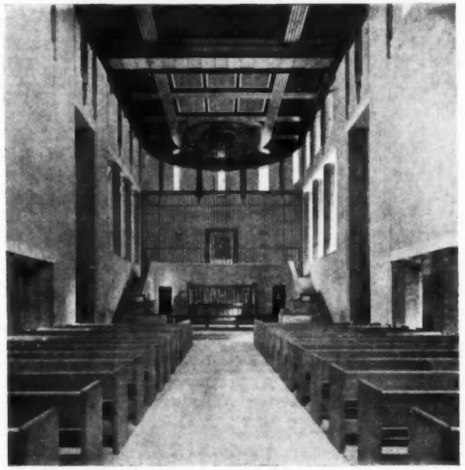
ST. NICHOLAS CHURCH, BURNAGE, NEAR MANCHESTER


NAVE
CROSSING
CHAPEL
IRON GRILLE
BRICK NICHE
ALTAR
ALTAR
CHOIR VESTRY
PEDESTAL CUPBOARD
40'0"
28'0"
9'0"
4'0"
3'0"
2'6"
10
5
10
20
30
40
50

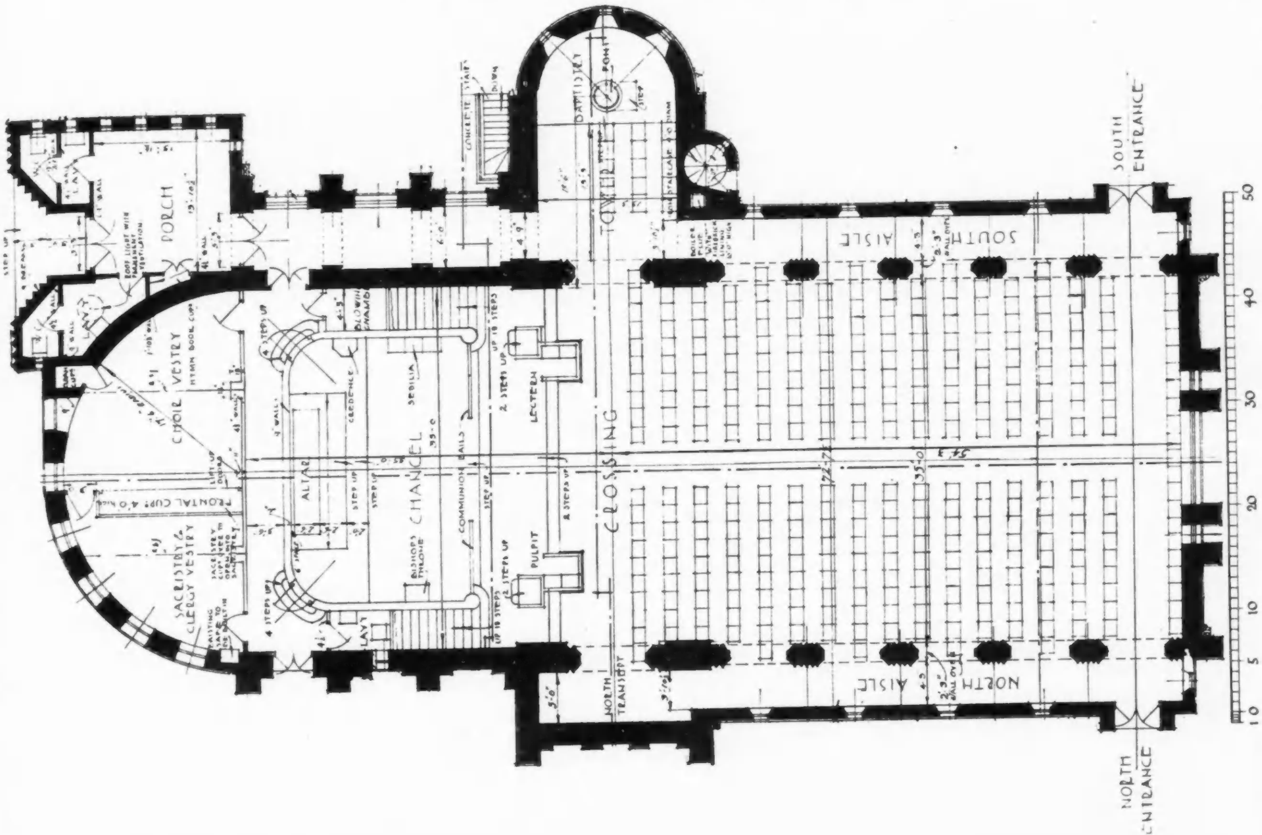

IRON GRILLE
SOUTH GALLERY
CHANCEL
18'0"
2'6"
2'6"
2'6"

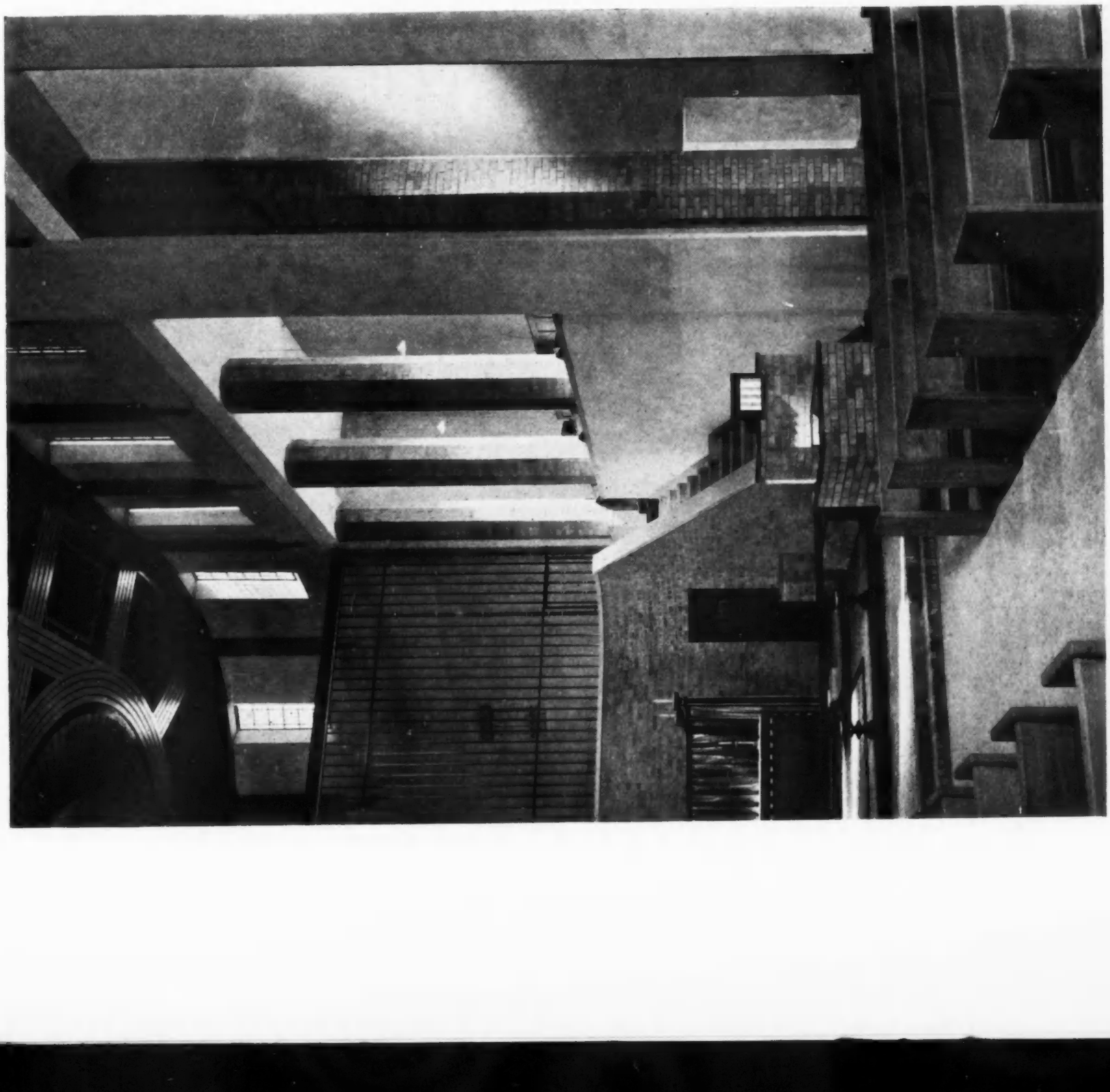



ACCESS TO ROOF
9'0"
BAPTISTRY
TOWER
40'0"
NORTH TRANSEPT
26'0"
BRICK PLINTH
FUEL
BOILER CHAMBER
2'6"
2'6"



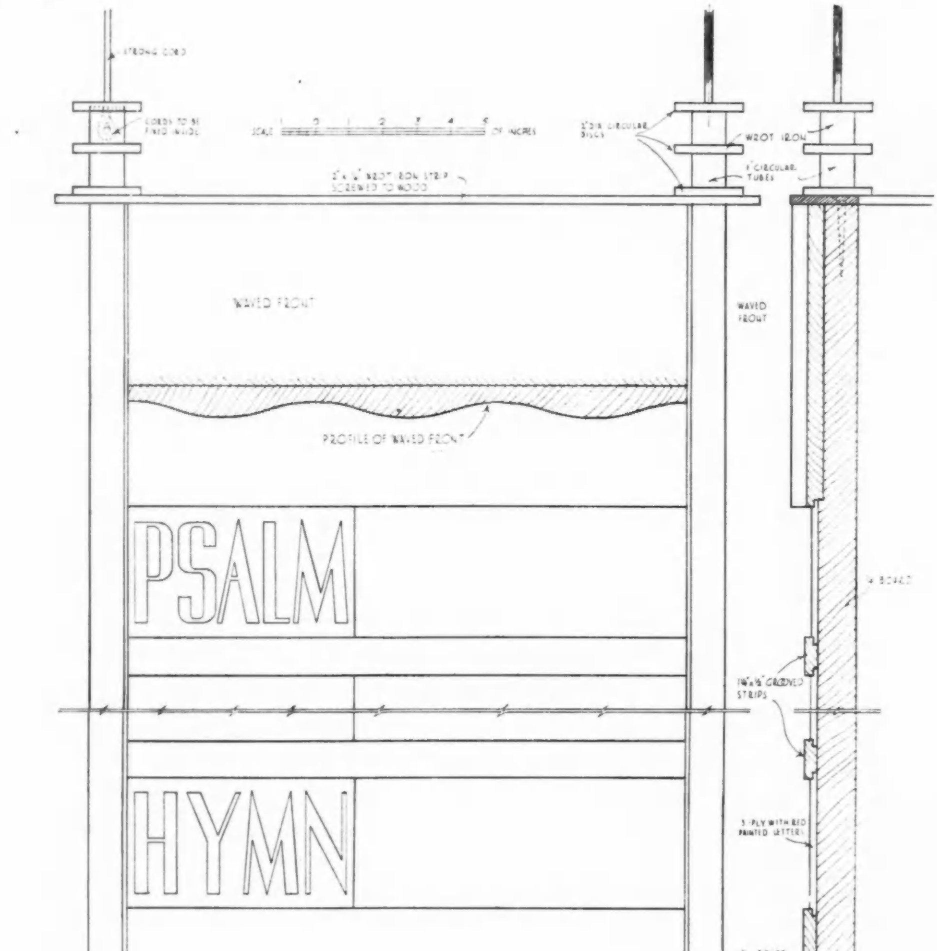
The ceiling panels are of acoustic wallboard, stained royal blue, framed in red, gold and black bands. The iron grille to the Lady Chapel is black, picked out with gold, the altar frontal red and gold, the altar rail ebonized wood and gold. Pew cushions and sanctuary carpet are royal blue. The walls generally are of neutral grey-blue.

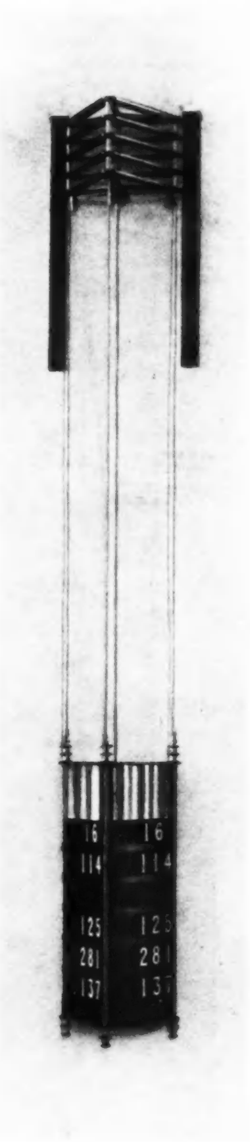

PORCH
CHOIR VESTRY
HYMN BOOK CUPD
SACRISTY & CLERGY VESTRY
FRONTAL CUPD 4'0" WIDE
ALTAR
CREDENCE
SEDILIA
CHANCEL
COMMUNION RAILS
BISHOP'S THRONE
LECTERN
PULPIT
CROSSING
TOWER
BAPTISTRY
FONT
CONCRETE STAIR
SOUTH AISLE
NORTH AISLE
NORTH TRANSEPT
SOUTH ENTRANCE
NORTH ENTRANCE
0
5
10
20
30
40
50



DESIGNED BY WELCH, CACHEMAILLE-DAY AND LANDER

IN ST. NICHOLAS CHURCH, BURNAGE


STRONG CORD
CORDS TO BE FIXED INSIDE
SCALE 1 0 1 2 3 4 5 OF INCHES
2" DIA CIRCULAR DISCS
WROT IRON
1" CIRCULAR TUBES
2" x ¼" WROT IRON STRIP SCREWED TO WOOD
WAVED FRONT
WAVED FRONT
PROFILE OF WAVED FRONT
PSALM
¾" BOARD
1¼" x ½" GROOVED STRIPS
HYMN
3-PLY WITH RED PAINTED LETTERS
¾" BOARD
¾" BOTTOM
2" x ¼" W.I. STRIP
STRONG HOOK
W.I. CIRCULAR KNOBS
ELEVATION
SECTION
FACE OF EXISTING WALL
¾" DEAL BOARD
¾" DEAL BOARD
PLAN
BLOCK
BLOCK
¾" DEAL BLOCK
2" x ¼" W.I. STRIP AT BOTTOM
COVER FILLET
3-PLY WITH RED LETTERS PAINTED ON (THE RED TO MATCH THAT ON THE CEILING)
1¼" x ½" GROOVED STRIP FOR CARDS
PLAN OF BRACKET
ELEVATION
PLAN
SCALE 1 0 1 2 OF FEET


16
114
125
281
137
16
114
125
281
137

The hymn board, suspended, counterbalanced, on the north wall of the Sanctuary, is triangular in plan, and can be seen from every part of the church. It is constructed from ordinary soft white wood, painted black and gold. The wide waved strip at the top is in gold, the figures are white on a black ground, and the lettering repeats the shade of red used on the church ceiling. The cost was £21 10s. For a photograph of the font, together with description, see page 637.

BY WELCH, CACHEMAILLE-DAY AND LANDER

LETTERS *FROM* READERS

HOWARD ROBERTSON, F.R.I.B.A.
(Principal, Architectural Association)
WELLS COATES
"PRACTICAL POLITICIAN"
CHARLES L. HILL
(Chairman, Urquhart's [1926] Ltd.)
C. G. MARTIN, F.R.I.B.A. (Retired)

The Mars Group

May 3, 1933

SIR,—I have read the remarks under Notes and Topics in the JOURNAL for today regarding the formation of the Mars Group, and in this connection I send you a copy of a letter which I have written to Mr. Yorke. I understand from him he is referring my letter to Mr. Wells Coates.

My object in writing to you is to remove any misconception which quite clearly exists that English architects have paid no attention to the International Congresses. Mr. Rowland Pierce, Mr. P. Cutbush and myself are only three amongst several other members of the Architectural Association who have gone fairly closely into the work of the Congresses. We have also furnished the Congresses with data on English practice.

As there seems to be quite frequently an idea abroad that English architects and architecture are behind the times in every circumstance, I think it only right that you should correct the impression conveyed by the first paragraph of your notes on the Mars Group.

You are, of course, at liberty to publish my letter to Mr. Yorke should you desire to do so.

HOWARD ROBERTSON

April 28, 1933

F. R. S. YORKE, ESQ., A.R.I.B.A.

DEAR SIR,—My attention has been called to your letter appearing in the technical papers regarding the International Congress of Modern Architecture.

In your letter you state that at the various Congresses there were no official delegates from England. I would like to point out that at the 1930 Congress England was represented by Mr. S. Rowland Pierce, Mr. Patrick Cutbush and myself, and that I have been a member of the Congress since 1929.

I should also like to point out I have been approached at various times to form an English group and that about two years ago a meeting was held at the Architectural Association to discuss the advisability of so doing. After full consideration of all the circumstances it was decided to leave the question of adherence to those individual architects who might be interested.

I think that the suggestion in your letter is that no attention has been paid to this movement by any architects in England and as this is not quite correct, I would be much obliged if you could arrange to put the matter right.—Yours very truly,

(Signed) HOWARD ROBERTSON,
Director and Principal, A.A.

(This letter has been submitted to Mr. Wells Coates, who has sent the following reply) :—

SIR,—I am surprised that Mr. Howard Robertson should have sent you his letter to the Hon. Secretary of the Mars Group before he had received an official reply to it. In the circumstances I am bound to send you a copy of my reply, as follows :

May 4, 1933

HOWARD ROBERTSON, ESQ., F.R.I.B.A.,
54, Bedford Square, W.C.1

DEAR HOWARD ROBERTSON,—Your letter of April 28 on the subject of the International Congresses for Modern Architecture was received by the Hon. Secretary of the British Group only yesterday, and has now been passed on to me.

Before accepting the responsibility of forming a British Group I made very careful enquiries regarding the attempts that have been made in the past by the International Secretariat to interest English architects in the programme of work of the Congresses.

I am, of course, aware that you and two other English architects attended the Brussels Congress. But the position is that an invitation to attend a Congress is one thing, official association with a programme of work, another. Dr. Giedion's report left no room for doubt on that matter.

I should very much like to know the names of those who attended the meeting at the Architectural Association about two years ago. Our Group is organized on the basis of a programme of work, with specific items of research for every contributing participant, and I am, of course, anxious to know of all those whose interests and whose capacities lie in the direction in which our Group proposes to move.

If you wish me to carry out the suggestion contained in the last paragraph of your letter, I shall be glad to do so, but I should in that case be bound to state the official position in regard to the Congresses with greater detail than I do here. Perhaps you would like to have a chat with me about the whole thing.—Yours sincerely,

WELLS COATES

In order that there should be no further doubt as to what constitutes "attention" to the aims and programme of the International Congresses, I shall quote from a letter in my possession, from Dr. Giedion, the International Secretary :

"To our great regret no English group of the Congresses has been formed. Mr. Robertson and some of his friends attended our Brussels Congress, but they afterwards informed us that no interest in our movement existed in England. ('Dass in England kein Interesse für unsere Bewegnung zu finden sei.')

"We regretted this all the more because our Congress is more actively organized for work today than ever. . . Please let us know if interest in the new architecture is still so lukewarm in England, and whether there are really no young men to be found there who have the courage, and feel it their duty, to form a collective organization, and establish contact with us?"

WELLS COATES

What is to be Done About This?

SIR,—The present conditions under which speculative housing is being produced are truly damnable. We have on the one hand the financial octopus of the building societies, who have developed from quite good and proper thrift societies into huge financial usury agencies. They have decided, for very obvious reasons, to throw in their lot with the speculative builder, the person which the history of housing (through our industrial period) shows to have been, in effect, our greatest social bane, and the producer of our most costly social ill—slums.

We have, as the result of the Housing Bill, the marriage of the two worst elements associated with the building industry, or with the architectural profession. This unlovely pair are exercising their conjugal rights to say to the architect, "You shall not come in, because *we* can do without you"; they say to the well-organized building contractor: "We will have no truck with you, because we can undercut your methods and your production." Thus the two pre-eminent members and most stable influences in the industry are in practice debarred from a field of activity which, through the next two or three years, is likely to be responsible for spending anything up to £100,000,000 of public money in one shape or form on house construction of all kinds. In other words, we are likely to see in the near future the largest expenditure of money on housing of the century without the slightest control by, or influence of, the architectural or organized building mind.

I am satisfied that no amount of voluntary organization will stop the ghastly progeny of the union referred to above. The advantages of a free and unfettered field of activity will be protected and defended by them at all costs. There are ways, however, of counteracting this brood, which, if taken up with vigour, would, I think, be successful. Action to this end appears to fall under three heads, namely :—

1. To amend the Acts governing the activities of building societies which, as you know, are given certain legal privileges under what might be termed their enabling acts (particularly with regard to the compounding of income tax), to the effect that while they enjoy these privileges, which are almost monopolistic in nature, they should be confined to making advances on houses erected to the designs and under the supervision of a registered architect. There would be no hardship whatever in this move, and it would add immensely to the value of the property upon which the advances are made; moreover, it is just common business sense.

2. To bring pressure to bear upon the Government to pass an amending Bill to their last Housing Act, to the effect of confining the advances of building societies to schemes under architectural supervision. As one of the major intentions of the Act was said to be to increase employment in the building industry, it is only right that the immense advances for housing purposes by the building societies should be confined to schemes being executed under the supervision of registered architects. Unless some such move as this is made the £100,000,000 which is likely to be spent during the next year or so on housing will be

of comparatively little advantage to the unemployed architect, but withal to the distinct disadvantage of the community.

3. This can be contemporary with action under 1 and 2 above, namely, for architects themselves to form a building society for the purpose of advancing money and taking advantage of the Housing Acts by loaning money only on houses constructed under the supervision of registered architects.

Without going very much into detail under these three heads, there does appear to be real ground for constructive action along some or all of these lines.

If, for example, in truth and effect, the architecturally-built house has marketable and social advantages over the speculatively-planned house, then the architectural building society should be in a position to grant considerably more by way of a mortgage than could the building societies dependent upon the more promiscuous market of the speculative house.

You will realize that I have only touched very briefly on the more important aspects of this matter, as I see it, and, of course, I regard them all as subservient to the national plan of dealing with housing, of which Sir Raymond Unwin's suggestion of a National Housing Board is such a constructive part.

I firmly believe that the creation of such a Board as is envisaged by Sir Raymond would deal with many of the difficulties which now arise from the ridiculous freedom extended to the speculative builder, from which we all suffer.

I do certainly hope that you will get every support for your movement, as it appears to be nothing less than a scandal that the most important work functionally of the architect, and the great influence for good which the architect can bring to bear upon the lives of the lower-paid population of this country through houses designed and planned for beauty and utility, should be withheld from them because it has been felt fit to throw the production of working-class houses to the ruthless wolves of speculation and monopolistic usury.

Just one final thought, namely, that while I think this problem is capable of being tackled upon the lines I have indicated, such efforts, if they are made, will, I fear, be largely wasted unless, concomitant with such, equal efforts are made to bring into being a cheaper and more efficient system of financing house building of all kinds.

As a constructive counter to the monopolistic position into which the building societies generally have developed, I think it is essential that the problem of building finance should be examined and dealt with by the industry as one of its major problems.

"PRACTICAL POLITICIAN"

Scale Buoys

With reference to Mr. H. A. Dod's letter in your issue for May 3 in connection with the above, we act as wholesale and retail distributors for this apparatus.

There are some thousands in use throughout the country, and they prove most efficient in removing scale from pipes and boilers, and for domestic purposes give the water the effect of having been softened, thus showing a considerable saving in the use of soap, soda and tea.

CHARLES L. HILL,
URQUHART'S (1926) LIMITED

The Speculative Builder

SIR,—Upon the first casual perusal of my JOURNAL this morning I feared you had made a change in the very excellent series of Information Sheets (we have now reached "Manholes," to my great pleasure), but upon closer scrutiny and with the aid of my glass I was disgusted and amazed to discover that the sheet was by another hand, and, what is worse, was actually the work of a *speculative builder's architect*—no more, no less.

Now, Sir, your chance has come to strike a blow for England.

No longer must this pest, this aptly named Blower,* be allowed to disfigure the face of the land. Surely one of your readers has sufficient love for this fair heritage of ours to suggest the means.

I have searched my *Kalendar*, but the fellow is not a member of our Institute—*not even a Licentiate*—so I am afraid that no help can be expected from that quarter.

Cannot the C.P.R.E. be prevailed upon to take some action?

Having at last found the culprit, some means of preventing his further depredations simply *must* be found.

CHARLES GREGORY MARTIN,
F.R.I.B.A. (RETIRED)

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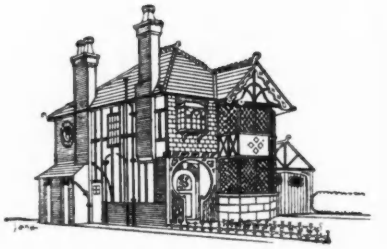
* Blow. To puff up. To taint by depositing eggs upon.

WHAT IS TO BE DONE ABOUT THIS?



[The architect does not, as a rule, make use of the Building Societies; in fact, generally speaking, he knows curiously little about them. The article printed below, with a sequel to follow next week, shows how the small builder uses them. There is every reason why the architect should use them on behalf of his clients. It is hoped that the information now conveyed by an experienced estate developer may help architects, who have had no experience of Building Society procedure, to consider its possible applications in relation to their clients. A letter on building societies concludes on this page.

The following have already appeared:—(March 29) 1. The Speculative Builder, by Penates; (April 5) 2. The Speculative Architect, by Edwin Gunn; (April 12) 3. Building Without Guidance, by Stanley C. Ramsey; (April 19) 4. What the Public Want, by Edwin Gunn; (April 26) 5. The Housing Problem, by Percy Morris; (May 3) 6. The Building Centre Competition, by E. Maxwell Fry.—ED., *A.J.*]

7. How the Architect can use the Building Societies

[*By H. C. BURDETT*]

Owner Occupiers

AT the present time, most of the building societies lend 80 per cent. of the purchase price or valuation, whichever is the less, to people wishing to buy houses for their own occupation. They will nearly all lend a further 10 per cent., making a total of 90 per cent., if this excess is insured. They have their own arrangements with one or other of the leading insurance companies for this purpose, and the risk is covered by the payment by the borrower of a single premium of approximately 10 per cent. of the extra advance. For example, on a house valued at £1,000 the building society would lend £800 normally and an extra £100 if this is insured, and the single premium for this extra loan would be £10. As will be explained next week, arrangements can be made in conjunction with some builders to borrow even more than 90 per cent.

Building Owners

It frequently happens that architects have clients who wish to build and take advantage of building society funds. Most of the societies are willing to lend on the security of the land as the building work proceeds. Assume a suitable site has been acquired and appropriate plans and specifications prepared : these should be submitted to the society with the request for finance during construction. The society will, if they approve the scheme, instruct their surveyor to inspect the site and value the proposed building, and the borrower will have to pay the nominal survey fee in advance.

If the society approves of the proposal it will agree to lend approximately 70 per cent. of the completed freehold value as the work proceeds. The advances will be made on the certificate of the society's surveyor at the stages agreed. As a rule the first certificate is issued when the building is roofed in, and the value of this certificate is usually about 45 per cent. of the total agreed. Most building contractors are willing to carry the work to this stage without payment on the assurance that the fund is available. The society requires a mortgage on the site when the first advance is made. If the site is already encumbered, a simple calculation will show whether there will be sufficient margin from the proceeds of the first certificate to clear the charge on the land and pay the builder his due. If not, it will be necessary to arrange with the builder to take less at this stage. When the house is completed the society will be willing to bring its loan up to the normal percentage of value already explained and any payments to the builder that may have been delayed can then be made.

Estate Development

It should be added that, in approved cases (that is, where the borrower is sound and the site is satisfactory), most societies are willing to help in the development of an estate by assisting with building finance. They will not assist in the purchase of the land, but will lend on the work in progress, and even if the land is mortgaged it is possible for it to be released plot by plot by using the first advance from the fund to pay out the original mortgage. Each society has its own methods, and will explain the details to any bona-fide enquirer.

(*To be concluded*)

HOW THE PLANNING ACT AFFECTS DEVELOPMENT

[*By T. J. SOPHIAN*]

ONCE a resolution to prepare or adopt a planning scheme has been passed by a planning authority, the development of land within the area to which the proposed scheme applies will be attended with appreciable risks unless the provisions of the Town and Country Planning Act, 1932, and the General Interim Development Order, 1933, are carefully observed.

Consent to the development of land cannot, of course, be absolutely prohibited if the proposed development complies with the ordinary bye-laws and regulations dealing with buildings, building operations and the like. But the risk run, in failure to observe the additional requirements of the Town and Country Planning Act, 1932, is that if the development ultimately offends the scheme on the scheme coming into force, then buildings which may have been erected may have to be pulled down or altered, or the use to which buildings have been put may have to be entirely stopped, and in each case without any compensation.

On the other hand, if permission to develop has been obtained in accordance with the Act and the Order, and it should subsequently happen that the development is not in conformity with the scheme, then conformity can only be required subject to the payment of compensation.

There are, however, only certain forms of development affected by the Act. It will be observed that S. 53 of the Act defines " development " as including " any *building operations* or *rebuilding operations*, and any use of the land or any building thereon for a purpose which is different from the purpose for which the land or building was last used " ; and " building operations " will include any road works preliminary or incidental to the erection of buildings.

The following forms of " development," however, are expressly excluded by S. 53, viz. :—

(1) The use of land for the purpose of agriculture, whether as arable meadow pasture ground or orchard, or for the purposes of a plantation or wood, or for the growth of saleable underwood, and the use for any of those purposes of any building occupied together with land so used.

(2) The use of land within the curtilage of a dwelling house for any fresh purpose other than building operations, if the purpose is incidental to the enjoyment of the dwelling-house as such.

Furthermore, by virtue of S. 12 (3) of the Act, permission during the interim development period cannot be refused for the erection of a building to be occupied with land which is used mainly or exclusively for agriculture (whether as arable meadow pasture ground or orchard) or for the purpose of a plantation or a wood, or for the growth of saleable underwood, though such permission may be refused if the site of the building is reserved by the scheme for any purpose, the carrying out of which in the future would necessitate the removal or the alteration of the building.

Except in the cases, therefore, in which the particular development is not affected by the Act, it will be advisable to make the necessary application to the interim development authority for permission to develop. The power vested in interim development authorities with regard to the granting or refusing of permission are as follows. In some cases, however, the authority must grant the application ; in others, however, it has an absolute discretion.

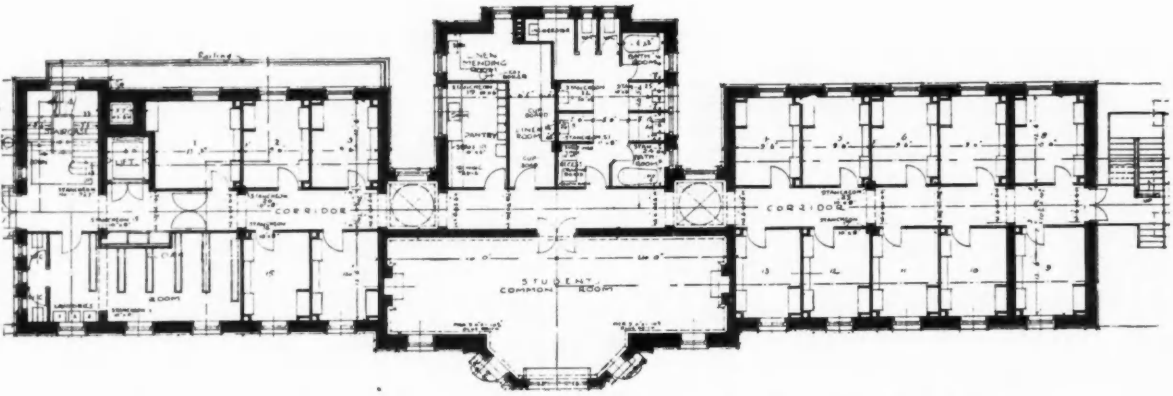
APPLICATIONS WHICH MUST BE GRANTED, UNCONDITIONALLY

An application for permission to *erect* a new building *must* be granted unconditionally if the following conditions are fulfilled :—

(1) The new building must be erected on the site of an " existing building " (as defined in S. 53 of the Act) or on the site of a building which was standing within two years before the date on which the resolution took effect (which would usually happen on receipt of the Minister's approval).

(2) The application must be made before or within two years after the destruction or demolition of the previous building *or* within twelve months after the date on which the

STUDENTS' BLOCK, ST. KATHERINE'S



The scheme, of which the above is the ground-floor plan, consisted of a separate wing in the College grounds for seventy-five study bedrooms, together with the necessary sitting rooms and sanitary accommodation. The point to note is the arrangement of the individual study bedrooms, typically shown in the plan of the first floor on the opposite page. They have built-in furniture, and the sanitary accommodation is concentrated in the centre of the block, with washing cubicles for the students.

The boiler plant was made the centre boiler house for the whole College, and therefore is relatively large; the boilers are oil-fired.

Externally, the elevation is in keeping with the existing College buildings. A good stock facing brick was used with red dressings, stone sills, and tiled mansard roof.

resolution took effect, whichever period last expires.

(3) The effect of refusal or of the imposition of any conditions must be such as to render it impossible for the applicant to erect a building having a cubic content, above the level of the ground, as great as that of the previous building, or having, in the case of a previous building used for business or industry, as great a cubic content, above the level of the ground, and as great a superficial area on the ground floor, as those of the previous building.

Notwithstanding, however, that all these conditions may be fulfilled, the interim development authority will have a discretion in the following cases, viz. :—

(1) Where the new building would not conform with a provision as to a building line, proposed in the scheme.

(2) Where it is proposed to include the site of the new building or part thereof in an area to be reserved by the scheme for a purpose the carrying out of which in the future would necessitate the removal or alteration of the new building.

APPLICATIONS WHICH MUST BE GRANTED, THOUGH CONDITIONS MAY BE IMPOSED

A. Permission to use a building erected in substitution for an "existing building" (as defined in S. 53 of the Act) or for a building which was standing within two years before the date on which the resolution took effect, *must* not be refused—though conditions may be attached—if the following conditions are fulfilled :—

(1) The new building must have been commenced within two years after the destruction or demolition of the previous building.

(2) The use must be the same as, or similar to, that for which the previous building was last used before the destruction or demolition.

(3) The use must not be of a noxious or otherwise offensive character.

B. Permission to *carry out works of alteration* to an "existing building" (as defined in the General Interim Development Order, 1933, hereafter referred to as "the 1933 Order"), other than works of alteration proposed in connection with a different use of the building, must not be refused—though conditions may be attached—if the following conditions are fulfilled:—

(1) The work must not involve the pulling down of the building to the extent of more than half of the superficial area of the main containing walls of the building, account being taken of any previous works of alteration subsequent to the date on which the resolution took effect.

(2) The works must not materially affect the design or external appearance of the building.

C. Permission to *extend* an "existing building" (as defined in the 1933 Order) *and to use* the extended building for a purpose the same as, or similar to, the purpose for which the building was used before the date on which the resolution took effect, or, if there was more than one purpose, for the same or similar purposes in the same relative proportions, or in the case of a newly-erected building, which has not been used before the date on which the resolution took effect, to use the building as extended for any purpose for which it was designed, must not be refused—though conditions may be attached—if the following conditions are fulfilled :—

(1) Neither the total nor the ground-floor space of the extended building must exceed by more than one-eighth the total or ground-floor space of the existing building.

(2) The extension must not seriously injure the amenity of the neighbourhood by reason of its design or external appearance.

(3) The extension must conform with provisions as to building lines in the proposed scheme.

(4) No part of the extension must occupy land proposed to be reserved by the scheme for a purpose the carrying out of which would necessitate the removal or alteration of the extension.

(5) The proposed use of the extension or of any part thereof must not be of a noxious or otherwise offensive character.

(6) In the case of the extension of a wall, fence or paling at or near the corner or bend of a road, the extension must not be contrary to the interests of safety.

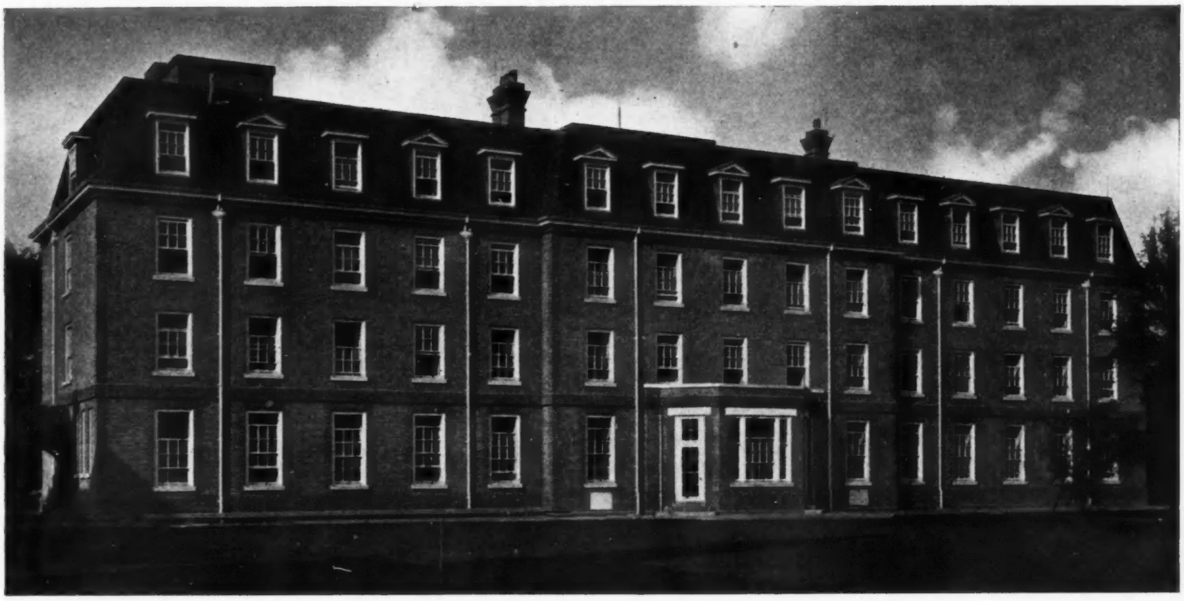
D. Permission to develop land for the purpose of a *sports or recreation ground* (not for profit and if public, free of charge) or to *erect within the curtilage of a dwelling house* buildings ordinarily incidental to the enjoyment of the dwelling house as such, must not be refused—though conditions may be attached—if the following conditions are fulfilled :—

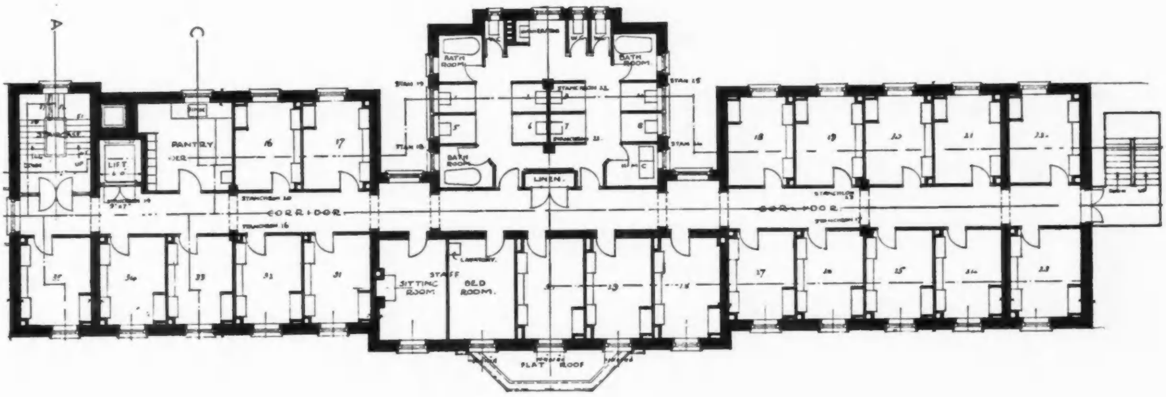
(1) No part of any proposed building must :—
  - (*a*) infringe any building lines proposed in the scheme.
  - (*b*) Occupy land proposed to be reserved by the scheme for a purpose the carrying out of which would necessitate the removal or alteration of the building.
  - (*c*) Seriously injure the amenity of the neighbourhood.

(2) Walls, fences or palings at or near the corner or bend of a road must not be contrary to the interests of safety.

In all other cases, the interim development authority will have an absolute discretion as to granting or refusing permission, and as to the imposition of conditions.

TRAINING COLLEGE, TOTTENHAM

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C
PANTRY
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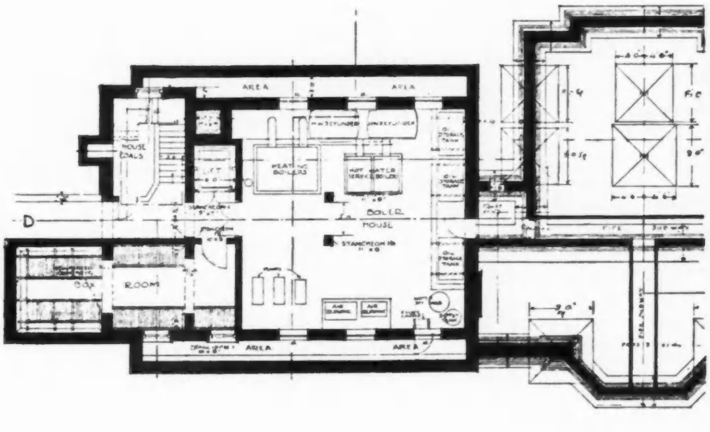
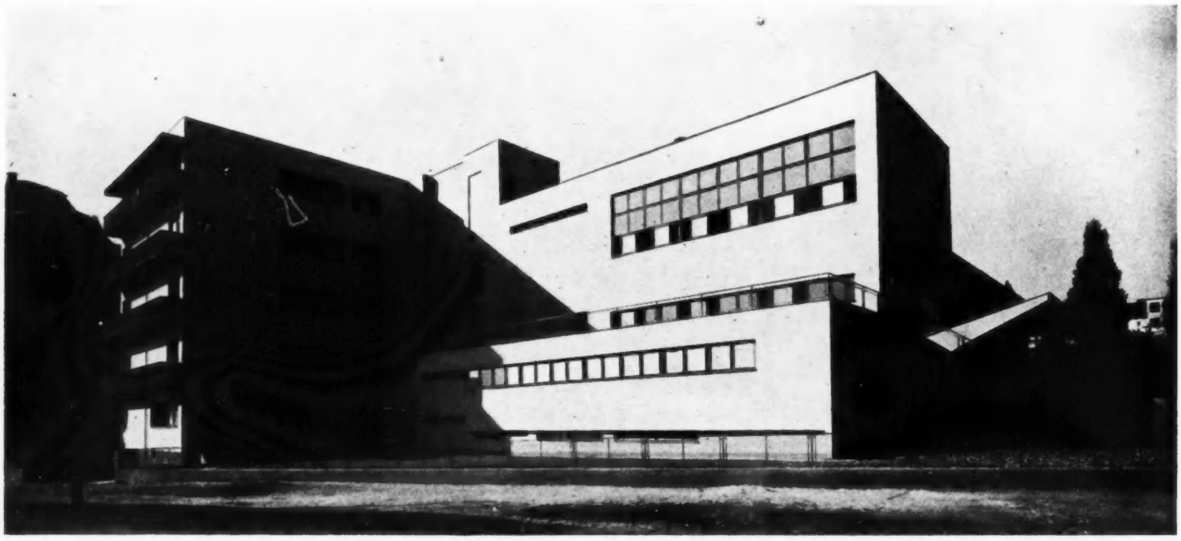
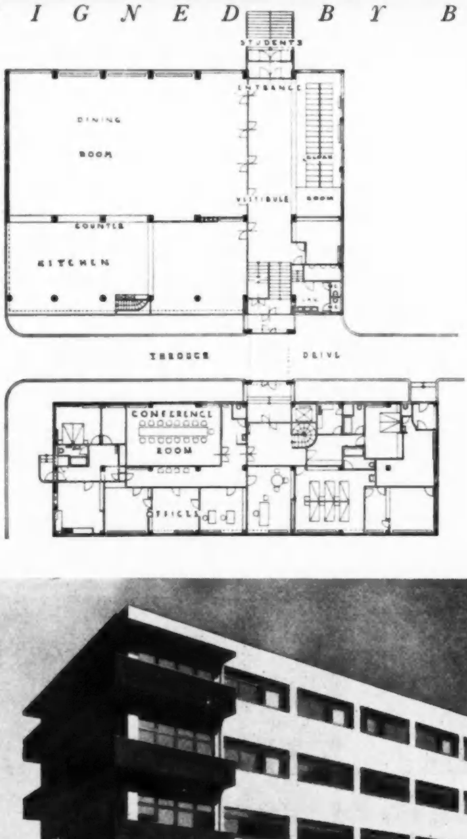

AREA
HOUSE COALS
HEATING BOILERS
HOT WATER SERVICE BOILER
BOILER HOUSE
BOX ROOM
D

DESIGNED BY YOUNG AND HALL

STUDENTS' HOSTEL AT BRÜNN



DESIGNED BY BOHUSLAV FUCHS


STUDENTS
ENTRANCE
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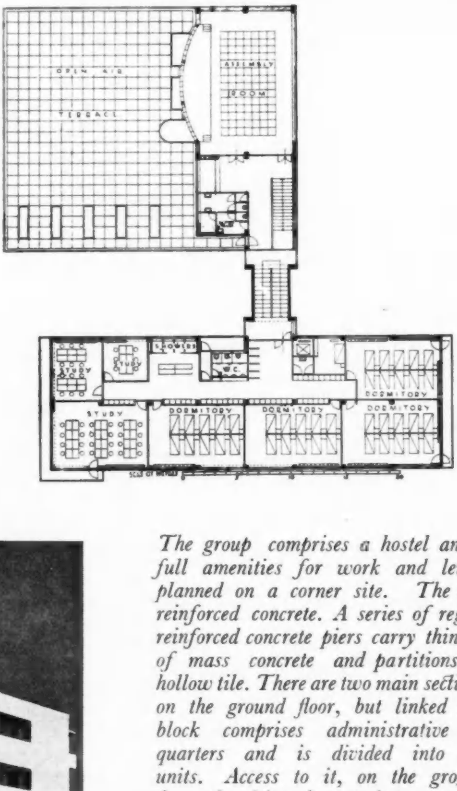
OPEN AIR
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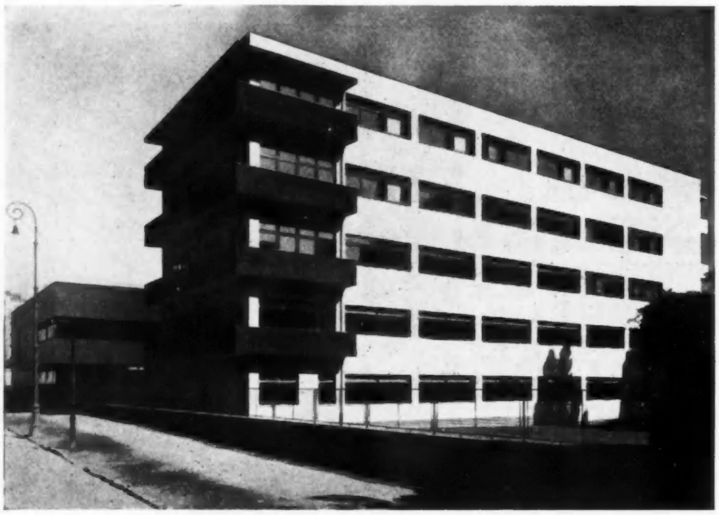


The group comprises a hostel and club, with full amenities for work and leisure. It is planned on a corner site. The structure is in reinforced concrete. A series of regularly-spaced reinforced concrete piers carry thin filling walls of mass concrete and partitions of plastered hollow tile. There are two main sections, separated on the ground floor, but linked above. One block comprises administrative and living quarters and is divided into small space units. Access to it, on the ground floor, is from the drive, but students enter direct from the street, passing between cloakroom and dining hall and up the connecting stairway.

The second block has one main floor. The dining hall, for about 200 persons, is separated from the kitchen by a long counter from which students collect their own food. Roll shutters completely close the opening. The flat roof is paved with square concrete slabs and used as an open-air exercise terrace. The adjacent assembly room, with small stage, seats 100.

R.I.B.A. EXHIBITION

THE ARCHITECT *AT* LEISURE

[*By J. D. M. HARVEY*]

WITH relief the architect lays down his T-square, consigns specifications to the waste-paper basket and clients to more interesting places, but his hold on the pencil is prehensile. It is only given up to be replaced by the brush, the etching-needle. The urge to express, to record, to paint the lily and add to the beauties of clean paper is insistent. There are gathered together at the R.I.B.A. galleries some two hundred odd pictures—paintings, drawings, etchings—the work of members. The architect may betray in his more leisure and perhaps unguarded moments, traits hidden in his work which, in the very nature of things, must generally assume a more constrained and conventional attitude. Let us look around.

We may search for some well-known signatures in vain, but the collection is very representative and attains a high level of excellence. The mannered technique is refreshingly rare. Water colours and drawings predominate enormously. Pencils and water colour are familiar, easy to hand and to carry, but this also shows that the nineteenth-century tradition which sent the architect on to the Continent to study, to measure, but, above all, to sketch, dies hard. There are but a meagre four or five lino-cuts. In a Continental show of like scope and circumstance the proportions would have been different. The decorative instincts of English architects seem, as yet, to lie dormant.

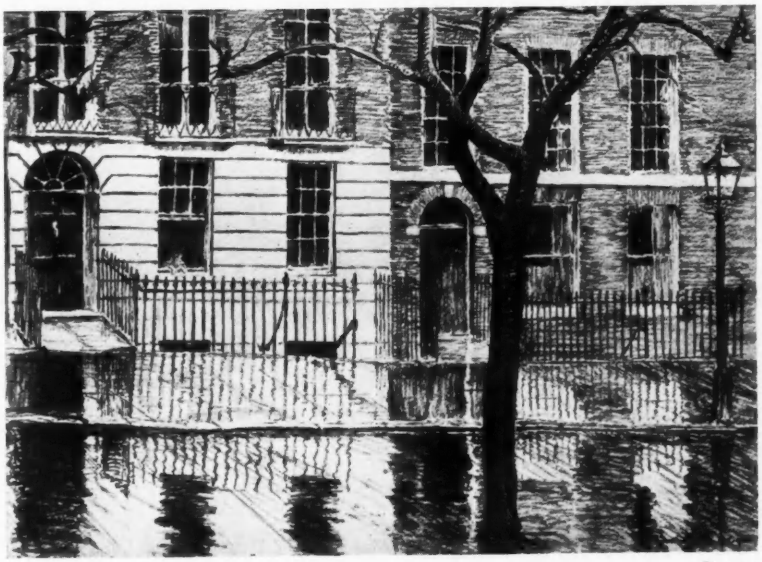
It is immediately apparent that, for the architect, interest lies in the object as an object; in the thing built up, completed, created. This is shown not so much by choice of subject, which may be due to circumstance, association, or even lighter reasons, as by treatment. The painter's interest is not bounded by what has gone into the making of a thing, but extends to what he himself can get out of it. The two attitudes are distinct and the dividing line in this exhibition is interesting and easy to trace.

Sir Reginald Blomfield, Professor Adshead, H. T. Brock Griggs, Mr. Maxwell Ayrton, to mention only a few, attain this painters' freedom. So does Mr. Vinycomb in his "Chessington Brickworks" (No. 98), where the reds and oranges, subtly disposed, glow with true native warmth. There are several old favourites here, notably H. T. Brock Griggs's etching of the Empire Hall at Olympia (No. 12), proudly bearing on its frame records of past appreciation. With but the slightest reference to architectural detail, this etching exactly conveys that quality of sturdy mass allied to workmanlike efficiency which is inherent in the building, and the means by which this is achieved repay study. Mr. Farey sends four water colours, of which the best is certainly "Lisseweghe" (No. 19) and that of "Banff Village" the least satisfactory. The clear light of the foothills seems to have unaccountably eluded Mr. Farey's accomplished technique. Three paintings by S. D. Adshead, small but lovely, are proof that here is one of the finest living water-colourists in the English—and best—tradition. His "Harbour, Polperro" (No. 107) is a lesson in the value of blacks as an aid to the painting of light. Mr. Musman's art suffers nothing by proximity or comparison, and his "Hampstead Heath" (No. 23) and "Farmhouse, Devon" (No. 24) are models of what water colours should be. By a somewhat different approach H. Lewis Curtis interests with three very charming water colours. In "View of St. Peter's and the Vatican" (No. 72) A. N. Prentice superimposes with disarming ease a pattern of blue shadows on Rome, the Golden. Mr. Maxwell Ayrton's "L'Aigle d'Or, Nice," and "Richmond" (Nos. 117 and 116), effortless and unaffected, combine pencil and light colour washes to perfection, but might have shown to better advantage in silver frames. Nearby, "Syracuse," by E. C. Bewlay (No. 121), shows us that the picturesque jumbles of Southern Italy present a clean gay face to the clean gay sea.

Let us turn for a moment to the pencil and crayon drawings. These range from the robust gaiety of Mr. Beswick's "Venetian Scene" (No. 129), in which a drop of the gaiety within, detached by the arrival of a gondola, illumines a stately façade with its flickering torch, to the intimate and unaffected charm of Mr. Arthur Keen's drawings. But the palm must surely go to Sir Reginald Blomfield's drawings (Nos. 6, 7 and 8). Three in number, they are probably the best pictures in the galleries. They show a complete mastery of technique and a sensitive appreciation of the limitations as well as of the capabilities of the medium. As you leave, you visit them for a last look. Mr. P. D. Hepworth, in three crayon drawings (Nos. 152, 153 and 154), exploits cleverly the cloudy but hectic romanticism of the—not quite so—Sunny Spanish Shore. For the sake of contrasts compare Mr. H. M. Fletcher's "New Bridge at Ronda" (No. 5), in which the scene, cleverly bereft of figures, is left to architecture and sunlight, with Mr. Ayrton's "Sunday Reflections" (No. 114), where it is left to Towzer and the rain. Mr. Walter Brand contributes some pencil drawings on that most exacting of surfaces—a chalk-surfaced paper—delicate, calling to mind the careful notations of a Regency artist's sketch-book. The best is the "Tower of the Palazzo Vecchio, Florence" (No. 51), in which the framing arch is declared only where needful and where the only over-statement is concerned with the projecting cornice on the left. In "Harbour Office and Customs House, Poole" (No. 90), by Gordon Sutcliffe, mannerism fights a losing battle with sympathy in the pencil work, and the handling of the black washes is accomplished deftly. This form of technique is a salutary discipline.

To mention all the good things is to catalogue the exhibition, but lest it be overlooked, let us here praise Mr. Keith Murray's "Conventions de Agustinas, Avila" (No. 56), in carbon pencil, with a wash which is not quite monotone: an assured drawing. Of the etchings, Mr. J. M. Clarke's "Whitby" (No. 36) is good. So also is Mr. Lawrence Wright's "Thames House" (No. 149). This artist's view under a steel bridge upholds with Mr. Cyril Power's three excellent prints the honour of the lino-cut and Mr. Richard's three oils are refreshingly unarchitectural.

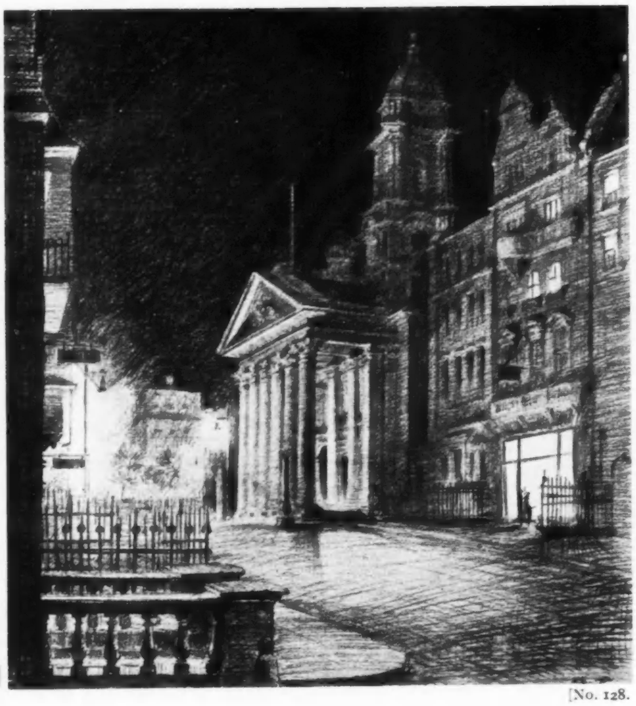
Many of the works exhibited are for sale, and 25 per cent. of the proceeds will be given to the Architects' Unemployment Fund. Here surely is an opportunity to kill not one but a whole flock of birds with one stone.



Pencil: 20¼" × 15" [No. 114.

Sunday Reflections. No. 9, Church Row, Hampstead. By Maxwell Ayrton.

AT THE R.I.B.A. EXHIBITION



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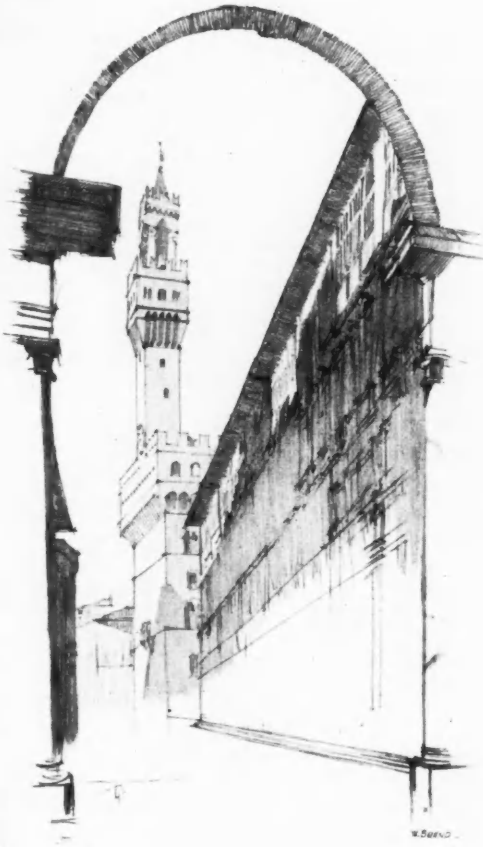

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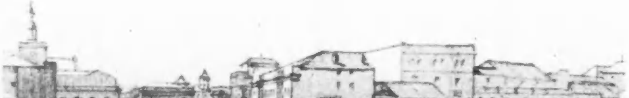

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[No. 5.

1. *St. George's Church, Hanover Square. By W. Beswick.* (Pencil: 12¾" × 13¾").

2. *The New Bridge at Ronda, Spain. By Henry M. Fletcher.* (Pencil: 9¾" × 13½").

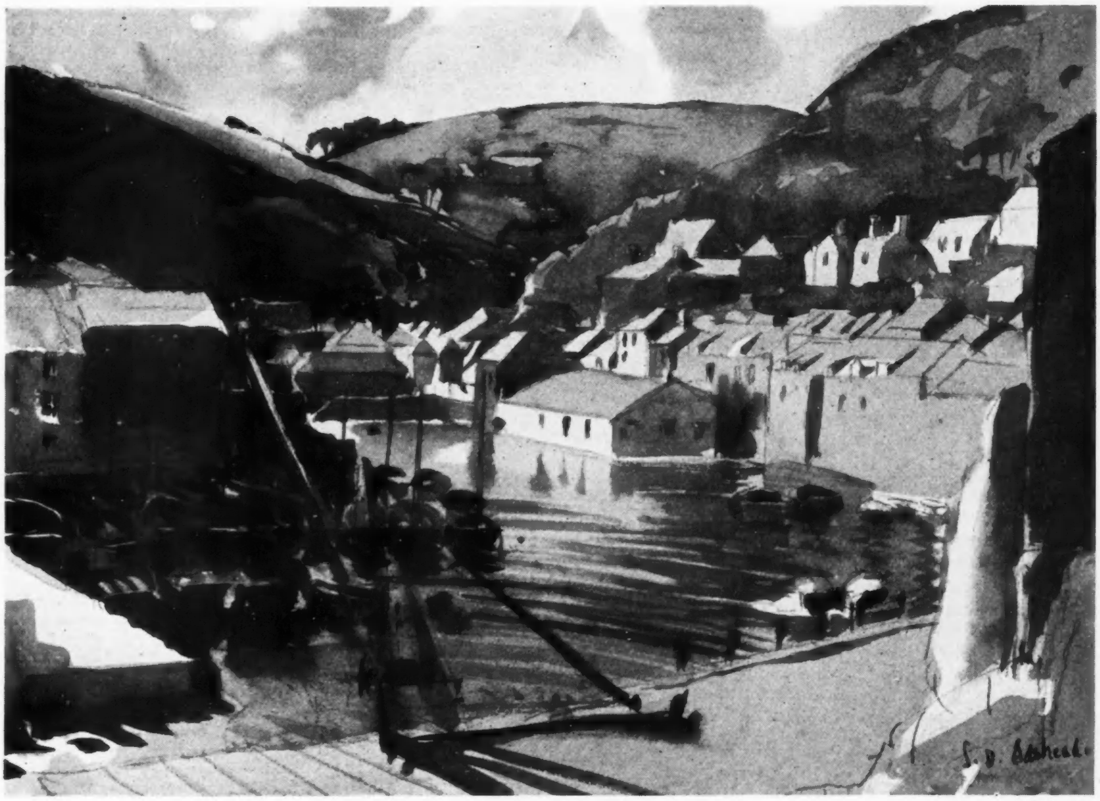
3. *Tower of Palazzo Vecchio, Florence. By Walter Brand.* (Pencil: 6¾" × 11¾").

4. *The Harbour, Polperro. By S. D. Adshead.* (Watercolour: 12½" × 9").

5. *View of St. Peter's and the Vatican, Rome. By Andrew N. Prentice.* (Watercolour: 16½" × 10½").

This exhibition of sketches, etchings, oil and water-colour paintings, carried out by architects, was opened at the R.I.B.A. on Friday last, May 5, and will run until Monday, May 22. Many of the works exhibited are for sale, and 25 per cent. of the proceeds will be given to the Architects' Unemployment Fund. A critique of the exhibition is printed on the preceding page.

OF SKETCHES AND PAINTINGS



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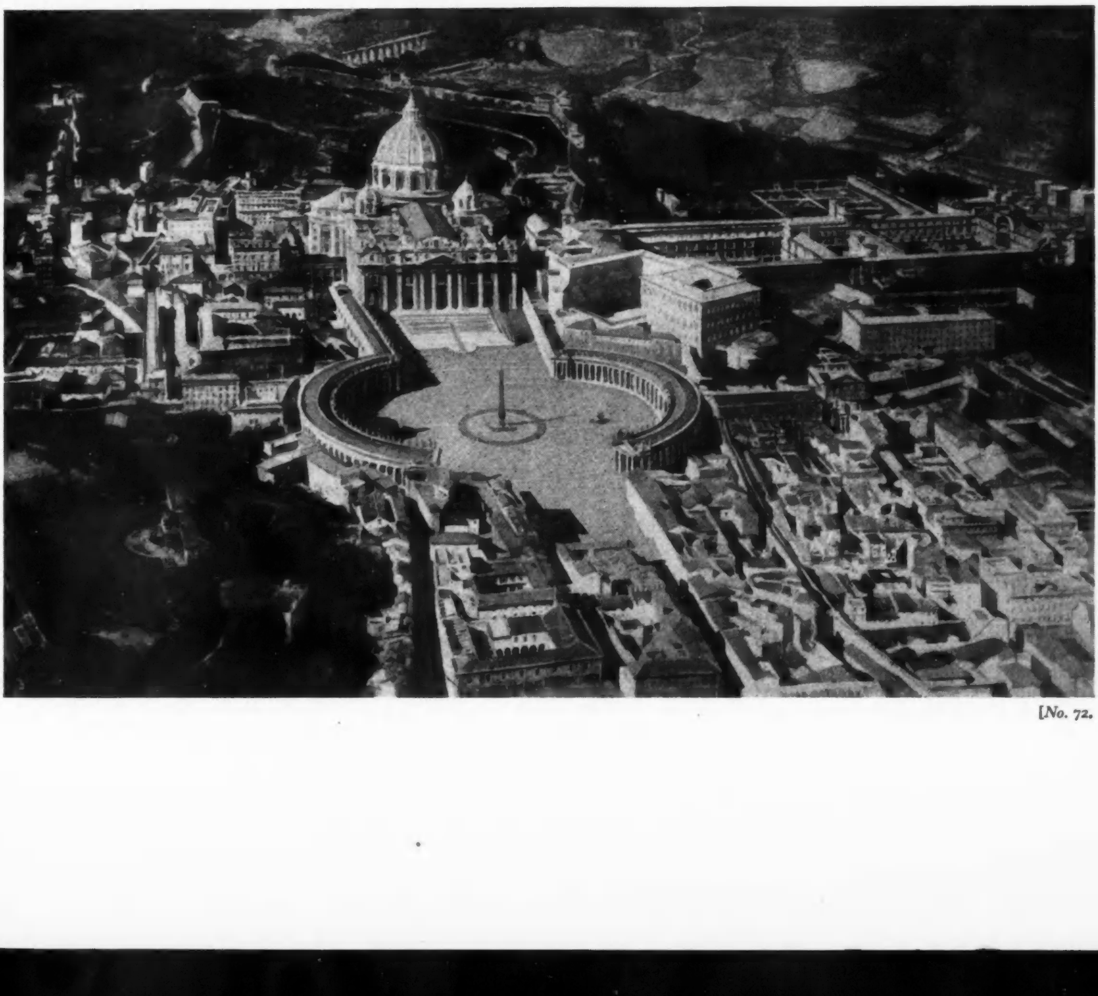

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[*No.* 72.

LITERATURE

ACOUSTICS

Introduction to the Acoustics of Buildings. By E. G. Richardson, B.A., PH.D., D.SC., with a foreword by Professor A. E. Richardson, F.R.I.B.A. London: Edward Arnold and Co. Price 3s. 6d. net.

THIS little book, published in a handy pocket size, and on sale at the small sum of three and sixpence, should prove of great value to the practising architect and the student. The author, a lecturer in acoustics to students of architecture at University College, University of London, and Armstrong College, University of Durham, touches upon almost every aspect of the subject touching architecture.

Professor A. E. Richardson, in his foreword, rightly states that "the data provided in this work should enable the architect to design auditoria that will be efficient places in which to hear both the human voice and music. The merit of this book inheres in its brevity no less than in explicit statement. I can say that a work of this type has long been needed, and that in so far as the University of London Bartlett School of Architecture is concerned, this book admirably fills a gap."

The book is divided into five sections, namely, 1: Reverberation; 2: Distribution of Sound; 3: Absorbent Materials; 4: Insulation of Sound; 5: Hints on Acoustic Design.

Discussing the distribution of sound, the author says:

There are certain places in a concert hall where a curved reflecting surface is advantageous. The surface of revolution whose section is a parabola has the property that if the source is placed at one particular point, the focus, all the rays after reflection are parallel (Figure 1). Consequently, if such a shape be placed behind the speaker or soloist at the focus, a plane beam of sound will be sent down the hall, and good distribution as well as reinforcement of the direct sound will be secured. This is the function of a sound-board over a pulpit, but it must be large to be effective. Such a device cannot be used with an orchestra, but a shell-shaped cavity or even a plane wall close behind the orchestra will ensure reinforcement of the direct sound. The surface of such reinforcing walls must be *hard* and non-absorbent, marble, say, or plaster on stone. This principle has been carried even farther in a bold experiment by M. Lyon at the Pleyel Hall in Paris, where the whole ceiling has been given a parabolic section, in the hope that the rays will pass along the arena and to the balconies in a parallel beam (cf. dotted lines on Figure 2). Another place where a hard surface is advantageous is on the sloping ceiling above a gallery, where the sound reflected from the ceiling following hard on the heels of the direct sound improves hearing for the auditors at the back of the gallery (Figure 3).

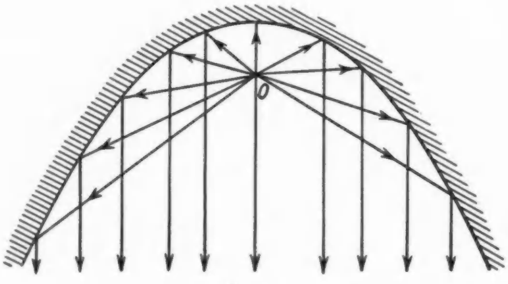


Figure 1

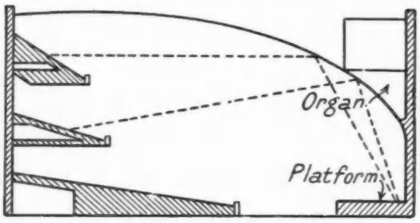


Figure 2

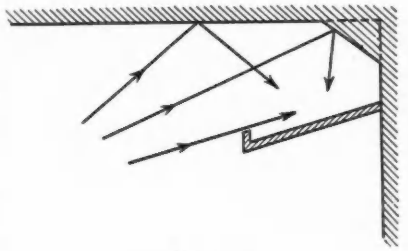


Figure 3

The following extracts are taken from the chapter on "Hints on Acoustic Design."

THEATRE.—As this is essentially a type of auditorium which is planned vertically rather than horizontally, it will usually have a high ceiling, which must be broken up in some way, either by a canopy, a large chandelier or a turret. As the surfaces in a theatre are usually good absorbers, there is no danger of excessive reverberation in the auditorium; rather is it liable to be too dead for music. It is best to keep the stage as reverberant as possible. This can be done only if large quantities of canvas are not allowed to remain on the flies.

CINEMA.—The general acoustic design will be similar to that of the theatre. Loud-speakers should be grouped so that they direct their sound into absorbent material, i.e., blocks of seats and sections of the audience. The seating accommodation should be such as can be covered by an angle of 90 deg. horizontally, and 30 deg. vertically. This will lead to a comparatively low ceiling. The organ should be above the screen, rather than divided into two halves on either side of it. If a small stage is provided behind the screen, it should be made reverberant.

GEORGIAN BATH

Sketches of Georgian Bath. By J. Raymond Little. With a preface by T. Sturge Cotterell. Bristol: J. W. Arrowsmith, Ltd. Price 10s. net.

THE author, in his short introduction, explains that this book is not an illustrated guide; nor does it pretend to be an exhaustive catalogue of the interesting buildings of Bath or an outline history of Bath architecture. He disclaims any design of insinuating into the reader's unsuspecting hands a commercial puff of the attractions of the Spa. All these things, he states, have been done already. Why then has he made and published these drawings?

First, I have made them for the fun of drawing things that one is interested in and admires. Secondly, it is my way of saying: "Look, how beautiful, how interesting this is; admire it with me!" Thirdly, because I am sure it is a fact, odd though it may seem, that people often look at things without seeing them. Lastly, because Father Time, who can invest ancient buildings with such a charm, has a nasty way of snatching them from us if we do not enough value them. Several of the scenes I have drawn are even now threatened with destruction. Some such changes are inevitable; but they are none the less deplored by such as happen to be drawn to Bath by æsthetic rather than by medical reasons.

The twenty-eight pencil sketches are extremely well executed and have been supplemented with brief particulars of the subjects depicted, such as Beaufort Square, Trim Bridge, Bath Street, the Circus, the Royal Crescent, etc.

LAW REPORTS

TOWN PLANNING ACT

Barnes v. Hett.—King's Bench Division. Before Mr. Justice Swift.

This was an action by Mrs. R. G. Barnes, of Kingsgate-on-Sea, Kent, against Mr. H. F. Hett, of Pembroke Avenue, Margate, claiming £250 damages for breach of covenant and, in the alternative, a like sum for breach of warranty.

Mr. Van den Berg, K.C., for plaintiff, said his client was a widow, and she claimed to recover damages arising out of the sale by the defendant to her of a plot of land in Pembroke Avenue. The parties had been on friendly terms, and in August, 1928, a conveyance was executed between the parties, pursuant to a contract made just before, under which the plaintiff agreed to pay £300 for this plot of land, and the land was conveyed to her. Plaintiff did not know that this plot of land, which was of considerable value if it could be used for building purposes and of little value if it were not available for building land, had been registered under the Town

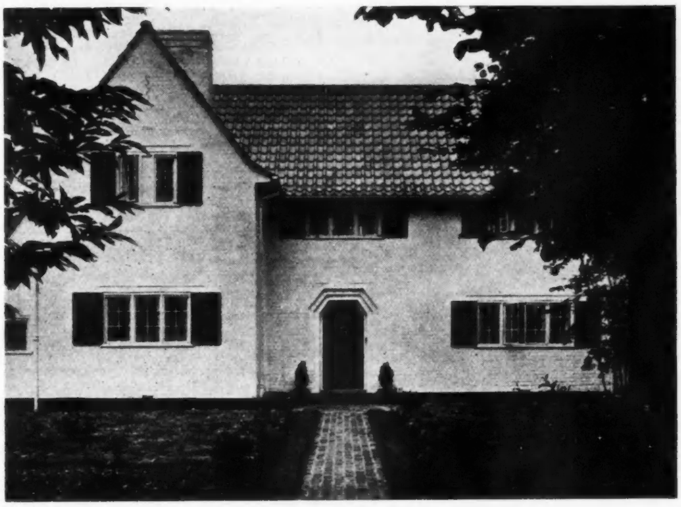
Planning Act and the Land Charges Act, 1925, and that there was a Town Planning Scheme, the effect of which was that the land, having a shortage in frontage of 2 ft., prevented it being built upon. After the purchase plaintiff was offered £300 for the land, and then it was discovered that there was this restriction and that the land could not be built upon. The land could now only be used for a garden and was not worth more than £50. Plaintiff now sought to recover the difference between the £50 and the £300. The plot of land had only a 30 ft. frontage, whereas the Town Planning Scheme stipulated for a 32 ft. frontage. When plaintiff asked for an additional 2 ft. from the defendant, he refused to sell, saying it would spoil his tennis court and make it useless for the game of tennis. Counsel's contention was that as the land was sold as building land his client was entitled to recover.

Mr. Evershed, K.C., for the defendant, said at the time the land was purchased the plaintiff's husband was alive, and they lived in a house adjoining defendant's. Defendant understood that Mr. Barnes had no intention of building on the land, and that he desired to acquire it solely for the purpose of extending his property and providing a back entrance. His client denied the plaintiff's allegations, and said that plaintiff's husband knew that the land could not be used for building purposes. The Town Planning Scheme had been duly registered, and that must be deemed to be notice to the plaintiff of the scheme. Counsel pointed out that the plaintiff could have added the 2 ft. she wanted to the land from her own property before she sold it.

On the law, counsel submitted that there was no implied warranty of title expressed and no warranty had been established. He pointed out that the plaintiff made no complaint to the defendant till March, 1932, when the Margate Corporation refused to allow a house to be built on the land. He submitted that the plaintiff had neither the law nor the merits on her side.

His lordship, after hearing the evidence and legal arguments, said the strip of land in question was 30 ft. wide and 118 ft. long. Neither party at the time of the conveyance knew that there was then in operation in that neighbourhood a town planning scheme, and that that scheme of 1927 would have the effect of rendering that piece of land, which defendant had sold plaintiff, unavailable for building purposes, being too narrow by 2 ft. Defendant had stood on his legal rights. His lordship could see no evidence at all of any warranty here. Plaintiff had given no evidence to prove warranty or, in fact, to show anything collateral to the deed by which this land was purchased. He was quite satisfied that there was no warranty given in this case. With regard to the question of an implied covenant, he did not think that in the circumstances of this case there was an implied covenant that the plaintiff should be entitled to build. The defendant had no control over the covenant restricting building. The trouble arose when the solicitor who acted for both of them in the sale and purchase of the land failed to search the register and find out that there was a scheme, and how it affected this property. He could not say that there was an implied covenant here as alleged. The action failed, and he dismissed it with costs.

HOUSE AT KINGSWOOD

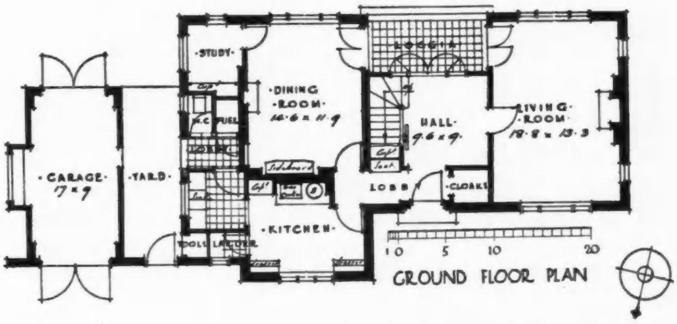


DESIGNED BY BERTRAM LAST

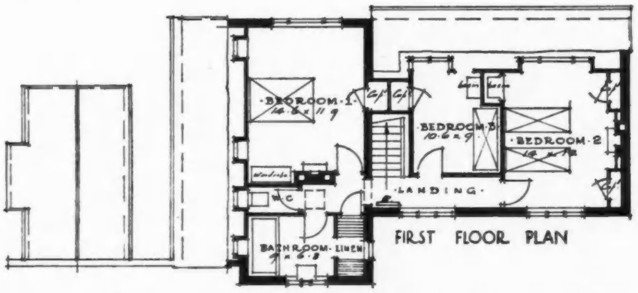
This house at Kingswood, Surrey, was planned to be on the south side of the road on a site of ample frontage. The walls are built of 11-inch cavity and limewhited; and the roof is covered with apple green glazed pantiles. Green shutters are used as a decorative feature and the whole effect is enhanced by a woodland setting.

The chief feature of the plan is a central loggia leading off the hall, which gives an air of spaciousness and light directly the house is entered, and an excellent view of the garden and woods beyond.

The interior is executed in as simple a manner as possible, walls and ceilings being finished with a rough plaster face and distempered to match.



GROUND FLOOR PLAN



FIRST FLOOR PLAN

SUBSIDENCE

Whittle and Cook v. *Russ and Murphy.—Chancery Division. Before Mr. Justice Farwell.*

IN this case the freeholder of Nos. 22 and 24 Highfield Road, Northwood, Middlesex, Mr. J. Whittle, and the second plaintiff, Mr. R. G. Cook, his tenant, of No. 24, brought an action against the defendants, Mr. and Mrs. Emil Russ and Mr. E. M. Murphy, for an injunction restraining them from excavating or digging on their property, The Chalet, adjoining plaintiff's property, so as to cause subsidence of plaintiff's land.

It appeared that the plaintiff's houses stood at the top of a bank which sloped down some 22 ft. to the defendants' premises. The defendants' land was formerly on the site of a sand and gravel pit, and plaintiff alleged that in order to level the ground for a lawn the defendants had cut away the toe of the slope. The result was that a portion of the top of the bank, including some of the garden of Mr. Cook, had subsided, and plaintiff alleged that any further subsidences would be a danger to the foundations of his houses, which were not far distant.

For the defence it was contended

that the bank was an artificial one, and that owing to the heavy rains it became waterlogged and subsided.

Mr. Topham, K.C., and Mr. J. B. Nesbitt appeared for the plaintiffs and Mr. W. Hart for the defendants.

His lordship, after hearing the evidence, said he came to the conclusion that the subsidence was the result of cutting by the defendant, Mr. Murphy, at the bottom of the slope. As far as he could see, there was no evidence that the other defendants, Mr. and Mrs. Russ, took any part in what was done, and he dismissed the action as against them, with costs. In the case of Mr. Murphy, he granted an injunction against him, with an inquiry as to damage, and ordered him to pay the plaintiffs' costs.

BUILDING
FACTS AND FIGURES

2. Building Plans Approved

[*By* L. J. GOLLOP]
B.Sc. (Econ.) F.S.S.

THE Ministry of Labour collects regularly from 146 towns in Great Britain particulars of the estimated cost of buildings for which plans submitted under the local building regulations were passed. Detailed figures are published every quarter in *The Ministry of Labour Gazette*. These figures are thus not comprehensive, and are not a measure of the absolute quantity of building work for which plans were passed at any particular time, since they do not cover the whole country and, in particular, exclude the London (L.C.C.) area. Nevertheless, covering 146 towns with a population at the 1931 census of 17,570,000 persons, they form a useful indication of the relative movement of proposed building activity.

The figures form no exact basis for an estimate of the amount of building work actually going on at any particular time. In the first place, there is a varying time-lag between the date of passing the plans and the date of the commencement of the work. Even if this time-lag were known or could be estimated, some of the schemes require more preparatory work than others, and there is no way of estimating this factor.

Secondly, the fact that plans are passed is no guarantee that the works will be put in hand. This is particularly the case with regard to the figures of the Local Authorities' own schemes, which are included in the figures. These are subject to the strict scrutiny of the Ministry of Health, and further sanction is also necessary in the case of works to be financed by loan. As experience has shown, much work may be held up at this stage.

These figures, however, are the only indication of building activity we have, except the unemployment figures and the Census of Production. They may, therefore, be used, *faute de mieux*, but their limitations should be kept in mind—in particular the limitation of scope and the fact that the schemes of the Local Authorities themselves are not given separately —a blemish, by the way, which the Ministry of Labour could remove.

In *The Gazette* for April, figures for 1932 are given, as well as figures for the first quarter of 1933, and the former are even more interesting than the latter. The figures for 1932 compared with the two previous years are given in the following table.

Building Plans Approved in 146 Towns of Great Britain (including London).

	1930	1931	1932
	£	£	£
Dwelling houses ..	46,764,000	40,492,000	46,888,000
Factories and workshops	4,581,000	2,734,000	3,072,000
Shops, offices, warehouses and other business premises	5,475,000	5,214,000	4,748,000
Churches, schools and public buildings ..	8,402,000	7,198,000	4,668,000
Other buildings; and additions and alterations to existing buildings ..	9,383,000	7,372,000	6,878,000
Total	74,605,000	63,010,000	66,254,000

The total value of work for which plans were approved thus suffered a considerable decline in 1931 and recovered somewhat in 1932. The figure for 1931 is 84, and 88 for 1932 compared with 100 for 1930. But the most interesting feature of the table is the increase under the heading "dwelling houses," which rather more than recovered the 1930 level after a moderate decline in 1931. It is to be regretted that the housing schemes of Local Authorities are not shown separately, but it is probably safe to say that the increase in this item between 1931 and 1932 was chiefly due to an increase in plans prepared by private enterprise. The stimulus of low interest rates and low costs would appear to be taking effect.

The table also gives an indication of the changes in demand from various sections of the community. In the following table, the previous table is recast, and figures are inserted comparing the items with 1930 as 100.

Plans Approved	1930	1931	1932
Total ..	£74,605,000	63,010,000	66,254,000
1930=100 ..	100	84	88
Total excl. houses	£27,841,000	22,518,000	19,366,000
1930=100 ..	100	81	70
Business premises (*a*)	£10,056,000	7,948,000	7,820,000
1930=100 ..	100	79	78
Public buildings (*b*)	£8,402,000	7,198,000	4,668,000
1930=100 ..	100	86	55
Dwelling houses	£46,764,000	40,492,000	46,888,000
1930=100 ..	100	86	100

(*a*) *Factories and workshops; shops, offices, warehouses and other business premises.*
(*b*) *Churches, schools and public buildings.*

The relative movement of the items is now apparent. The value of plans approved for dwelling houses contracted sharply in 1931, but recovered their former level in 1932. The value of public buildings contracted sharply in 1931 and even more sharply in 1932, falling almost to half the 1930 level. This clearly shows the effect of the economy campaign. The demand for buildings from the business community suffered a very sharp decline in 1931—the sharpest recorded—but remained stable at its depressed level in 1932.

The table would appear to indicate that housing, under the stimulus of low costs and interest rates, may be expected to go ahead during 1933. With regard to the industrial community it would appear that their demand has been cut to the lowest possible figure, and that there is an increasing amount of "slack" which will be taken up when industrial and commercial prospects improve. We may, therefore, expect a continuance of the present low figures in this category with no further substantial reductions, and a considerable spurt when conditions for industry generally become more favourable, and perhaps some extension before then on necessary work postponed. With regard to public buildings, it is impossible to forecast. If, however, a "normal" building programme is envisaged for the year, it would appear that, in addition to the "normal" 1933 programme, half the 1932 programme remains to be completed. The future of this item depends very largely on the view taken in Whitehall with regard to the "economies" in building work, which have proved so uneconomical.

The figures for the first quarter of 1933 are relatively less interesting owing to their limitations. It is the policy of the Ministry of Labour to publish the quarterly figures as soon as possible, without waiting for returns from all the 146 authorities. The returns received, usually numbering between 140 and 146, are compared with the returns from the same authorities for the same quarter of the year before. These figures are thus even more incomplete than the annual figures, and can only be compared with the same quarter of the year before.

The following table shows particulars for 141 towns from which returns had been received.

Building Plans Approved in 141 Towns of Great Britain (excluding London).

	First Quarter of 1932	First Quarter of 1933
	£	£
Dwelling houses	9,585,400	13,346,200
Factories and workshops ..	543,000	917,300
Shops, offices, warehouses and other business premises	1,019,900	1,022,800
Churches, schools and public buildings ..	1,236,500	2,232,100
Other buildings; and additions and alterations to existing buildings ..	1,656,000	1,499,400
Total	14,040,800	19,017,800

It will be seen that the chief feature of 1932—the increase under the heading "dwelling houses"—continued into 1933. It would appear, however, that the movement of the figures in the category "churches, schools and public buildings" between 1931 and 1932 is now being reversed in 1933. Local Authorities, after the intensive economy campaign and its disastrous results, are clearly "thinking twice" about economy and are submitting plans. Whether this will result in an increase in activity on public buildings and schools remains to be seen. It is possible, of course, for the Ministry of Health to continue the economy campaign after it has ceased to be acceptable to the Local Authorities. There was also an increase in plans passed for the business community, probably indicating that some of the "slack" mentioned above is being taken up.

The total result of these movements is an increase in the estimated cost of buildings, of which plans were approved in the 141 towns, of £4,927,000 or 35 per cent. over the first quarter of 1932. Whether this will result in a corresponding increase in building activity remains to be seen. It would, however, seem probable that the unemployment figures for the building (not public works) industry will this year show at least their normal seasonal decline.

Architects and Posters

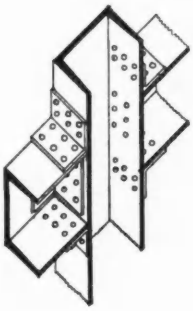
Mr. George Mansell, addressing the Publicity Club of Glasgow last month, said:

Architects ought to have the legal right of action against anyone disfiguring their handiwork by sign or poster erection, and a perpetual injunction granted them against such disfigurement in the future.

Scottish Architects

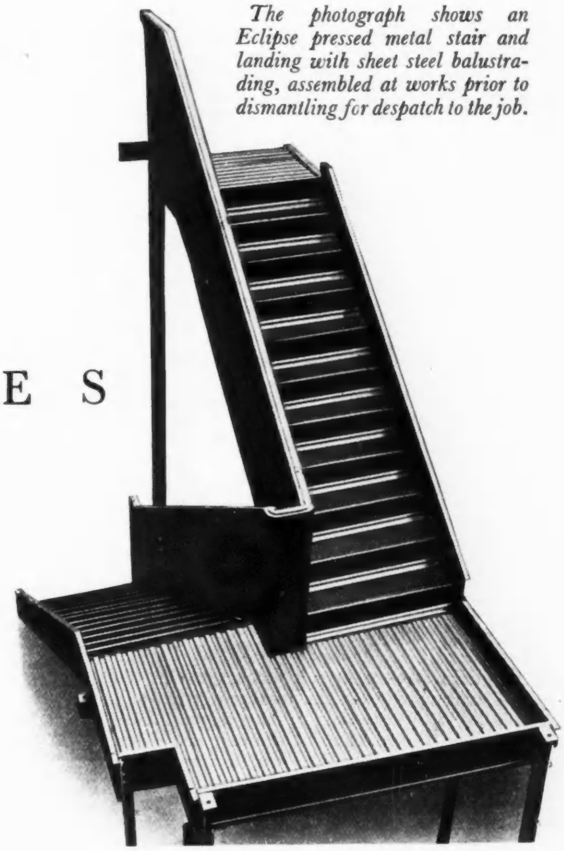
At the last meeting of the Council of the Royal Incorporation of Architects in Scotland, Mr. John Begg, F.R.I.B.A., president, in the chair, it was decided to institute a Lorimer Memorial Prize of £10 per annum in books for sketch-book work. The following were elected members:

As Associates: Messrs. D. D. S. Stokes, Basil Spence and A. F. Wallace. As Students: Messrs. H. E. Scott, J. R. Beaton, James Brown, I. F. Cameron, W. J. C. Irvine, J. R. Findlay, F. R. Stevenson, John Ogilvie, Alex. Graham, jun., W. P. Johnstone and George Annand.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.



The photograph shows an Eclipse pressed metal stair and landing with sheet steel balustrading, assembled at works prior to dismantling for despatch to the job.

Pressed Steel Stairs

PRESSED steel stairs are becoming more widely used in this country, but I believe their advantages are not as fully appreciated here as they are abroad.

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Tread and riser are usually pressed as a single unit, and it is quite likely that in the near future complete flights in standard heights and widths will be made in a single pressing. Such stairs are cheap, strong and rigid.

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A steel stair, constructed in light pressed metal that can be erected with the structural frame and does not rely for support upon the walls, has been made for several years by Frederick Braby. Where such a stair is incorporated in a building scheme temporary ladders and gangways are eliminated, the finished filling of treads and landings, which may be cement, terrazzo, marble or wood, being laid only when the building is nearing completion.

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Because the stair is independent of the walls non-supporting partitions may be more freely employed.

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The stair can be made to any width between stringers and with any size of tread and riser. The landings are formed from dovetail steel sheets, which provide a rigid platform and a good key for any composition filling.

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Each flight is assembled at the works, dismantled, and the members marked to facilitate easy erection on the site. The underside of the stair is fitted with steel clips to take expanded metal or dovetailed sheet for plastering.

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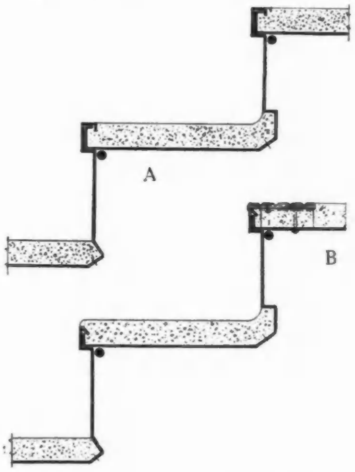
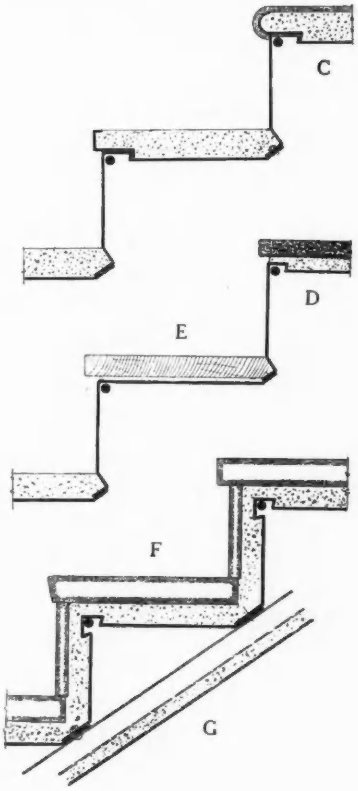
Balustrades in sheet steel, or of dovetail sheeting designed to take a cement backing for tiles, marble, terrazzo and so on, are supplied as an integral part of the stair.

The diagrams illustrate the manufacturers' standard sectional details for the treads of pressed steel stairs.

- *(A) Right-angled and coved corners.*
- *(B) Safety nosing*
- *(C) Rubber covering.*
- *(D) Stone tread.*
- *(E) Wood tread on felt.*
- *(F) Marble and terrazzo tread.*
- *(G) Dovetail metal sheeting fixed to the underside of the stair and plastered.*





The manufacturers ask that the following particulars accompany enquiries: sketch plan showing position of walls and stair, height from floor to floor, width between stringers, type of step required.

A Corrugated Roofing Material

I have received a new reference catalogue that gives sizes, gauges, weights, and fixing and flashing details of Cellactite roofing material; a compound of asbestos and asphalt, consolidated and sealed by pressure over a steel core, and die-pressed in the form of standard corrugated sheets.

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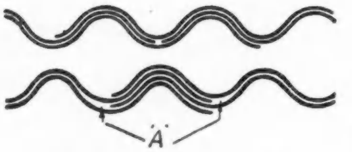
In the process of manufacture the steel core is cleaned and dried and immersed in a bath of chemically inert molten bitumen which is acid- and weather-resistant, and, having a very high melting point, is unaffected by sun heat.

A covering of asbestos asphalt felt is then applied under a pressure of 3,000 tons, and is held firmly to the sheet by the adhesive bitumen.



The upper illustration shows the close and solid nesting afforded by Cellactite corrugated roofing, with no opening to the weather; the lower, unsatisfactory openings at A left by other methods, without mitreing.

Initial water-tightness in a corrugated roof depends chiefly on the weathering of the laps. With materials of any appreciable thickness the junction at the end and side laps presents difficulties which appear to have been overcome by the Cellactite method (see diagram).

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The material is made with 28, 24, 22 and 20 gauge cores; the four types being made to suit varying purlin spacings. For normal slopes the following spacing is recommended as a maximum:

28 gauge, 5 ft. 6 ins. centre to centre.
24 „ 6 ft. 6 ins. „ „
22 „ 7 ft. 0 ins. „ „
20 „ 7 ft. 6 ins. „ „

Sheets are 2 ft. 3 ins. wide overall, having nine 3 ins. corrugations and covering 2 ft. if laid with a single corrugation side lap, or 1 ft. 9 ins. if laid with a side lap of two corrugations.

Lengths are ordinarily available from 1 ft., increasing by increments of 6 ins. up to 10 ft. Sheets between 10 ft. and 12 ft. long are made to special order in all but 28 gauge core. The average thickness of Cellactite is $\frac{5}{32}$ in. and the depth of the corrugations $\frac{3}{4}$ in.

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The natural black sheeting, 28 gauge, laid with a 6-ins. end and side lap, and including necessary fastenings for normal work, weighs 270 lb. per 100 square ft. The 20 gauge sheeting, laid in a similar manner, weighs 375 lb. per 100 square ft.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Tenements

SIR Francis Fremantle asked the Minister of Health whether, and to what extent, tenements of equally good design were dearer than cottages per square foot of floor area; what was the reason for the difference; and whether he would issue model plans and specifications to local authorities of urban areas.

Sir Hilton Young said that working-class tenements of from three to five stories cost ordinarily from 12s. to 15s. per square foot of floor area. The comparable figures for cottages of one or two stories were from 7s. 6d. to 9s. The difference was due largely to the greater cost of foundations and heavier construction of buildings of more than two stories, and also to the comparatively small demand for tenements, resulting in less specialization in this class of work. Many model plans of cottages and tenement buildings and a model specification for cottages had been issued, and further plans were at present under consideration.

Working-class Houses

Commander Cochrane asked the Secretary of State for Scotland whether he was in a position to announce the terms of reference and composition of the departmental committee which he proposed to set up regarding the reconditioning of working-class houses and other matters.

Sir Godfrey Collins said that the terms of reference to the Committee which had now been appointed were as follows:—

"To consider and report:

(*a*) What, if any, further steps are necessary or desirable to secure the maintenance of a proper standard of fitness for human habitation in working-class houses which are neither situate in an area suitable for clearance under Part I of the Housing (Scotland) Act, 1930, nor suitable for demolition under Section 16 of that Act; and

(*b*) What, if any, further steps are necessary or desirable to promote the supply of houses for the working-classes, without public charge, through the agency of public utility societies or other bodies subject to similar limitations, operating in particular areas or otherwise."

Sir Thomas Whitson, ex-Lord Provost of the City of Edinburgh, had consented to act as chairman of the committee and the other members would be: Mr. J. G. Burnett, M.P., Mr. L. Foot, M.P., Col. Kerr, M.P., Mr. Maclay, M.P., Mr. J. S. C. Reid, M.P., Councillor A. S. McKinlay, Mrs. Shaw, M.P., Baillie Mrs. Somerville, and Mr. Train, M.P.

THE BUILDINGS ILLUSTRATED

Following are names of the specialists, general contractors, and some of the sub-contractors and suppliers for the buildings illustrated in this issue:

St. Nicholas Church, Burnage, Manchester (pages 617–622). General contractors, G. Macfarlane and Sons, Ltd. Sub-contractors: Ragusa Asphalte Paving Co., Ltd., asphalt; Stuart's Granolithic Co., Ltd., granolithic; Williamson Cliff, Ltd., bricks; Roberts Adlard, Ltd., slating; Eric Munday, Ltd., iron screens and electric light fittings; Hollis Bros. & Co, Ltd., wood block flooring; Williams, Gamon & Co. (Kaleyards), Ltd., metal casements; Pilkington Bros., Ltd., glass; F. A. Norris & Co., Ltd., iron staircases; Callow Rock Lime Co., Ltd., Calime for all plastering work; A. and S. Wallace, Ltd., plastering; London Pipeless Heating, Ltd., heating; Pharaohs (Wallboards) Ltd., ceiling; Gillett and Johnston, Ltd., bells; Henry Willis and Sons and Lewis & Co., Ltd., organ; Cecil Cooper & Co. (London), Ltd., electrical installation; John Faulkner and Sons, Ltd., lightning conductor.

St. Katherine's Training College, Tottenham, N. (pages 626-627). General contractors, Y. J. Lovell and Son. Consulting engineer: Dr. Oscar Faber, O.B.E. Quantity surveyor: H. H. Connybeare. Sub-contractors: Jas. Slater and Co., (Engineers) Ltd, heating, hot water and boiler plant; Dent and Hellyer Ld., plumbing, drainage and sanitary fittings; Girdlestone & Co., electric light and fittings; J. P. White and Son, doors; Matthew Pollock, Ltd., furniture; Carter & Co., internal tiling; Acme Flooring and Paving Co. (1904), Ltd., oak flooring in common room and other wood block floors; Ames and Finnis, roof tiles; General Asphalte Co., Ltd., asphalt; George Wright, (London) Ltd., external staircase and rainwater heads; Stuart's Granolithic Co., Ltd., staircase; Aldous and Campbell, Ltd., passenger lift; Nettlefold and Sons, Ltd., door furniture; Aspinall Enamel, Ltd., paint.

House at Kingswood, Surrey (page 633). General contractors: Head Bros. Sub-contractors: Louis Dernier and Hamlyn, Neolux fittings.

Trade Items

Messrs. Bryce, White and Co., Ltd., are again exhibiting at Brighton's third Modern House and Building Exhibition, which is now open at the Dome and Corn Exchange, Brighton, until May 13. The firm are showing their well-known Brycite products, which include doors and gates of all kinds, an enormous range of mouldings, dressers, kitchen cabinets, joinery and turnery. The central feature of the exhibition is the Model House, which is fitted with a Brycite dresser. The doors on the ground floor and the whole of the mouldings used throughout this house are also supplied by Bryce White.

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The stand of Messrs. London Brick Co., and Forders, Ltd., at the Brighton Exhibition shows examples of the company's products, which are now being used to the extent of 1,200,000,000 every year. The well known Phorpres (four times pressed) common brick, which is now the standard building brick, does not lend itself, of course, to elaborate display upon an exhibition stand; nevertheless, samples of the very many standard special shapes that are always stocked are exhibited. There are also shown Phorpres rustic bricks, and Phorpres white facing bricks. An interesting example of the results of the application of scientific research to an age-old industry is seen in the small sections of wall built with the patent Phorpres cellular brick. These sections are cut away in order to show the honeycomb form of construction given to a wall by the use of these bricks, which were produced, first, to remedy a defect of most building materials—excessive weight in relation to their strength—and, secondly, to provide improved insulation against heat and cold, sound and moisture. Some photographs are also displayed which give some conception of the machinery and resources required to produce over four million bricks per working day.

Obituary

We regret to record the death of Mr. William Stewart Morton, managing director of Scott Morton and Tynecastle Co., Ltd., Edinburgh, in his 65th year. He was the eldest son of the late William Scott Morton, founder of the business, and became managing director on the death of his father in 1903. Mr. Morton, who was a J.P. for Edinburgh, was also on the boards of The College of Art, Edinburgh Savings Bank, Chamber of Commerce, Fettes College and St. George's School for Girls.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The BERMONDSEY B.C. is to erect 36 flats on the Amos estate at a cost of £17,573, and 49 flats on the Bethel Place estate, at a cost of £26,110.

Plans passed by the ENFIELD U.D.C.: Two houses, Bazile Road, for Mr. S. E. Hooton; four houses, Churchbury Lane, for Messrs. Bowyer and Bowyer; nine houses, Halifax Road, for Mr. Albert Tracey; two houses, The Chine, for Mr. W. E. Silk.

Plans passed by the FINCHLEY U.D.C.: Four houses, Bancroft Avenue, for Messrs. Smerdon Bros.; two houses, Ingram Avenue, for Messrs. R. Hart and Sons; alterations and additions, 4 Broadway, for Messrs. J. Salmon and Sons, Ltd.; eight houses, Widecombe Way, for Mr. A. Reast. Plans submitted: 12 flats, Chandos Road, for Mr. E. Sage.

Plans passed by the SOUTHGATE U.D.C.: Workshop, Highfield Road, for Mr. W. G. Kearsey; eight shops, flats and hall, rear Winchmore Hill Road, for Mr. C. W. Dennis; six houses, Waterfall Road, for Mr. F. Bate; workroom, rear 12 The Parade, Green Lanes, for Mr. J. A. C. Foster; 26 houses, Tewkesbury Terrace, Lower Maidstone Road, for Mr. A. L. Farman; shop, Tottenhall Road, for Mr. W. F. Harris; 12 houses, Firs Lane, for Messrs. George Reed and Sons, Ltd.; new road, Chase Way, for Messrs. Swannell and Sly; four houses, Myddleton Gardens, for New River Co., Ltd.; alterations, building, Russell Road, for Mr. C. S. Brown.

SOUTHERN COUNTIES

The Ministry of Health is to hold an enquiry into the scheme of the BEXHILL Corporation for new sewerage works, at a cost of £27,300.

Plans passed by the BEXHILL Corporation: House and shop, Buckhurst Drive, additions, Golf Club House, Brookfield Road, additions, Cooden Beach Hotel, and eight houses, West Down Road, for Mr. E. Bunce; six bungalows, Turkey Road, and four bungalows, Peartree Lane, for Mr. J. E. Maynard; five houses, Lessingham Gardens, for Messrs. Tubbs and Messer; house and shop, Turkey Road, and six houses off Cranston Avenue, for Messrs. Jeffery and Bowcock; two houses, Cranston Avenue, for Mr. R. W. Moore; seven shops, Marina, for Mr. O. H. Collins; four houses, St. Andrews Road, for Mr. J. H. Lye; 28 houses, St. George's Road, for Messrs. Thorpe & Co.; flats, Brookfield Road, for Messrs. W. R. Hindmarsh & Co.

The Aquarium Committee of the BRIGHTON Corporation has considered a report with regard to the construction of a Concert Hall and an indoor bowling green on the front, and reports in favour of the scheme, at an estimated cost of £9,000.

Plans passed by the BRIGHTON Corporation: Shopfront, 154-5 Edward Street, for Messrs. G. Virgo and Sons; alterations, 34-5 Western Road, and 42-3 Clarence Square, for Messrs. Halford, Ltd.; nursery school, Sussex Street, for Brighton and Hove Nursery Schools' Association; conversion into flats, 154 and 108 Coombe Road, for Mr. A. T. Arnett; alterations, 17 York Place, for Mr. H. Ogden; hospital, Eastern Road, for the Governors of the Sussex Eye Hospital; six bungalows, Warren Rise, for Mr. R. C. Spendlove; street, Sandyhils Avenue, Patcham, for Messrs. G. Ferguson and Son; four houses, Graham Avenue, Patcham, for Mr. E. H. Rowe; three houses, Sea View Road, Rottingdean, for Mr. J. Bassett; 42 houses, Graham Avenue, Patcham, for Mr. T. G. Thompson; two houses, Crescent Drive, Rottingdean, for Mr. F. A. Coats; house, four semi-bungalows, two bungalows, Braeside Avenue and Barrhill Avenue, Patcham, for Messrs. G. Ferguson and Son; eight houses, Valley Close, Patcham, for Mr. T. R. Braybon; streets, Carden Avenue, Patcham, for Messrs. Braybons, Ltd.; alterations, 3-4 Regency Mews, for Mr. H. A. Kimberley; alterations, rear 31 Loder Road, for Mr. T. A. Poole; conversion to store, 11-12 Ivory Buildings, for Mr. J. Ashdown; alterations, 135 Preston Road, for Mr. G. F. Poole; conversion into three flats, 42 Preston Park Avenue, for Mrs. L. Brooker; shop, 3 Rose Hill Terrace, for Mr. J. Cutts; two houses, Hollingdean Terrace, for Mr. J. Morley; shop, 138 Beaconsfield Villas, for Mr. G. H. Simpson; shop-front, 5 Camelford Street, for Mr. W. Morgan; 16 bungalows, Farm Hill, Rottingdean, for Coastal Estates, Ltd.

EASTERN COUNTIES

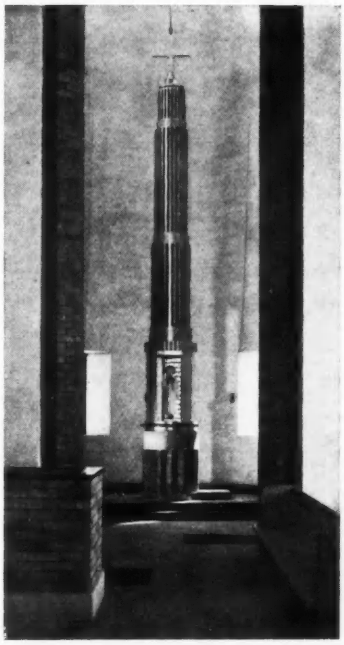
Plans passed by the YARMOUTH Corporation: Six houses, Anson Road, for Mr. L. Flaxman; four houses, Burgh Road, for Messrs. H. Bedwell and Son; five shops, Lowestoft Road, for Mr. D. C. Thomas.

MIDLAND COUNTIES

Plans passed by the KIDDERMINSTER Corporation: Three houses, Batham Street, for Mr. W. Lindley; eight houses, Franche Road, for Mr. P. Hall; two houses, Park Street, for Mr. E. W. Perks; eight houses, Highfield Road, for Miss A. Spilsbury.

Plans passed by the MANSFIELD Corporation: Two houses, Century Avenue, for Mr. A. Mason; stores, Rosemary Street, for Mansfield Co-operative Society, Ltd.; three houses, Beckett Avenue, for Mr. J. Jeffery; 13 houses, Bedford Avenue, for Mr. J. P. Smith; operating and X-ray rooms, Mansfield Hospital, West Hill Drive, for Governors; 12 houses, Balmoral Drive, for Messrs. T. Smith and Son; four houses, Kate Moody Lane, for Messrs. H. Blythe and Son; six houses, Nottingham Road, for Messrs. H. Baggaley, Ltd. Plans submitted: 44 houses, Chesterfield Road, for Mr. A. Farnsworth.

Plans passed at SUTTON COLDFIELD: Conversion of Vesey houses, High Street, for Mr. J. Cohen; additions to cottage, Holland Street, for the City of Birmingham Gas Department; shop, King's Road, for Mr. F. H. Wheelock; 10 houses, Kingstanding Road, for Mr. D. James; two houses, Oakwood Road, for Mr. G. Foster; 24 houses, Whitehouse Common Road, for Mrs. E. E. Wright; billiard hall, Highbridge Road, for Mr. E. Pickard.



In St. Nicholas Church, Burnage, Manchester. By Welch, Cachemaille-Day and Lander. The font is built of the same silver-grey Stamford bricks as the rest of the church, and the bowl is of stone. The life-sized figure of the Child Christ, carved in wood by Donald Hastings, is painted in natural colours, and stands inside the cover, which is made up of oak slats, gilded on the outside and painted vermilion on the inside. For the gilding, white metal leaf, lacquered, was used. The cost of the font was about £25, and the cover, including the figure, cost about a hundred pounds.

NORTHERN COUNTIES

Plans passed by the BOLTON Corporation: Two houses, Albert Road, for Messrs. G. H. Pearse and Son; two houses, New Church Road, for Mr. H. Latham; 40 houses, off Crompton Road, for Messrs. Leigh Bros., Ltd.; 28 houses, Lever Hall Road, for Mr. J. Markland; six houses, Almond Street, and four houses, Carisbrooke Drive, for Mr. W. E. Yates; six houses, Southgrove Avenue, for Messrs. Price and Groves; tennis pavilion, Chorley New Road, for Independent Methodist Church trustees; alterations, 400-402 Derby Street, for Bolton Savings Bank; extensions, Sunnyside Mills, for Messrs. Tootal Broadhurst, Lee & Co., Ltd.; 43 houses, Gibbon Street, for Corporation Housing Committee; two houses, Green Lane, for Messrs. R. G. Hirst and Son; two houses, Lakeside Avenue, for Mr. A. Bottomley; two houses, Lakeside Avenue, for Mr. Wm. H. Jones; 20 houses, Salford Road, for Mr. Maurice Welch; three houses, Morris Green Street, for Mr. James Marsden.

The SHEFFIELD Corporation is to erect 45 houses on the Woodthorpe estate, for rehousing persons to be displaced by slum clearances.

The SHEFFIELD Corporation Tramways Committee has approved plans for extensions at the Queen's Road depôt, at an estimated cost of £26,500, and tenders for the work are to be obtained.

Plans passed by the YORK Corporation; Three houses, and house and shop, Albemarle Road, for Mr. J. Hetherton; eight houses, Swinnerton Avenue, for Messrs. W. West, Ltd.; development, Mount Vale and White House Estate, for Messrs. R. J. Pulleyn and Sons; institute extensions, Bootham Crescent, for Burton Lane Club Committee; two shops and houses, Haleys Terrace, for Mr. Oglesby; six houses, Huntington Road, for Messrs. Culliford and Tindall; two houses, Millfield Lane, for Mr. J. N. Dunn; 16 houses, Irwin Avenue, and eight houses, Lilac Avenue, for Mr. H. Williamson; six houses, Burton Stone Lane, for Mr. A. Temple; two houses, Hempland Lane, for Mr. H. C. De Burgh; two houses, Millfield Lane, for Messrs. Eyeington and Dunkley; two houses, Abbey Street, for Mr. D. Thorpe; additions, Esplanade Boat House, for St. Peter's School Governors; six houses, Holgate Lodge Estate, for Mr. F. Shepherd; house and dairy, Main Avenue, for Mr. W. Scoby; additions, The Crescent, for Church of English Martyrs; two houses, Green Dykes Lane, for Mr. H. Fisher; 20 houses, Burnholme Estate, for Mr. J. N. Dunn; new brewery premises and two houses, Huntington New Lane, for York and District Club's Brewery, Ltd.; two houses, Copmanthorpe, for Mr. L. Birch; estate development, Tang Hall Lane, for Messrs. Cowling and Swift.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_2	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	1¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	$\frac{3}{16}$"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9¼	1 1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2⅞
,, ,, 26 oz. ,, ,, ,,	,,			3¾
Arctic glass, white	,,			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,			6½
⅛" Hartley's rough rolled	,,			7
¼" ,, wired cast	,,			10
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†7½	to	‡1 0
,, ,, 2	,,	†10	,,	‡1 3½
,, ,, 3	,,	†1 4½	,,	‡1 10
,, ,, 4	,,	†1 11	,,	‡2 4
,, ,, 6	,,	†2 3	,,	‡2 7½
,, ,, 8	,,	†2 5	,,	‡3 0½
,, ,, 12	,,	†2 10	,,	‡3 3½
,, ,, 20	,,	†3 3½	,,	‡3 9
,, ,, 45	,,	†3 6½	,,	‡4 0½
,, ,, 65	,,	†3 11½	,,	‡4 4
,, ,, 90	,,	†4 4	,,	‡4 9
,, ,, 100	,,	†4 6	,,	‡4 11
Vita glass, sheet n/e 1 ft.	,,			1 0
,, ,, ,, ,, 2	,,			1 3
,, ,, ,, over 2	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2	,,			3 0
,, ,, ,, 5	,,			4 0
,, ,, ,, 7	,,			5 0
,, ,, ,, 15	,,			6 0
,, ,, ,, over 15	,,			7 6
Putty, linseed oil	lb.			3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5′ 0" deep and cart away	Y.C.		9	0
,, to form basement n/e 5′ 0" deep and cart away	,,		9	6
,, ,, 10′ 0" deep and cart away	,,		10	0
,, ,, 15′ 0" deep and cart away	,,		10	6
If in stiff clay	add ,,		3	0
If in underpinning	,, ,,		5	0
Digging, return, fill and ram	,, ,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	15	6
1" ,, ,, ,, ,,	,,	1	19	6
1¼" ,, ,, ,, ,,	,,	2	5	0
¾" × 2" fir battening for Countess slating	,,		10	6
Do. for 4" gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9" joists	F.R.		1	0
1" deal gutter boards and bearers	F.S.		1	4
1¼" ,, ,, ,, ,, ,,	,,		1	8
2" deal wrought rounded roll	F.R.			9
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼" do.	,,	3	2	0
1½" do.	,,	3	11	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼" do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s	d.
1½" deal moulded sashes of average size	F.S.	2	3
2" ,, ,,	,,	2	6
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2" ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½" deal four-panel square, both sides, door	F.S.	2	6
2" ,, ,, ,,	,,	3	0
1½" ,, but moulded both sides	,,	3	0
2" ,, ,,	,,	3	6
4" × 3" deal, rebated and moulded frames	F.R.	1	6
4½" × 3½" ,, ,,	,,	2	0
1½" deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½" deal moulded wall strings	,,	2	6
1½" ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3" × 2" deal moulded handrail	F.R.	1	6
1" × 1" deal balusters and housing each end	Each	2	6
1½" × 1½" ,, ,,	,,	3	3
3" × 3" deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

			s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	0	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			2
1" granolithic pavings	Y.S.		4	6
1½" ,,	,,		6	0
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		18	0
9" × 3" ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

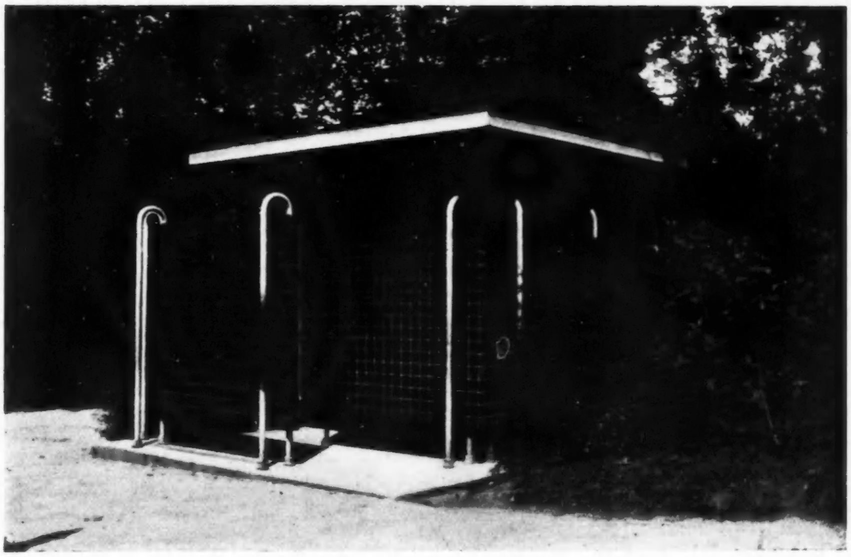
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . . . from	,,	2	9

A URINAL IN PRAGUE

DESIGNED IN REINFORCED CONCRETE AND TILES

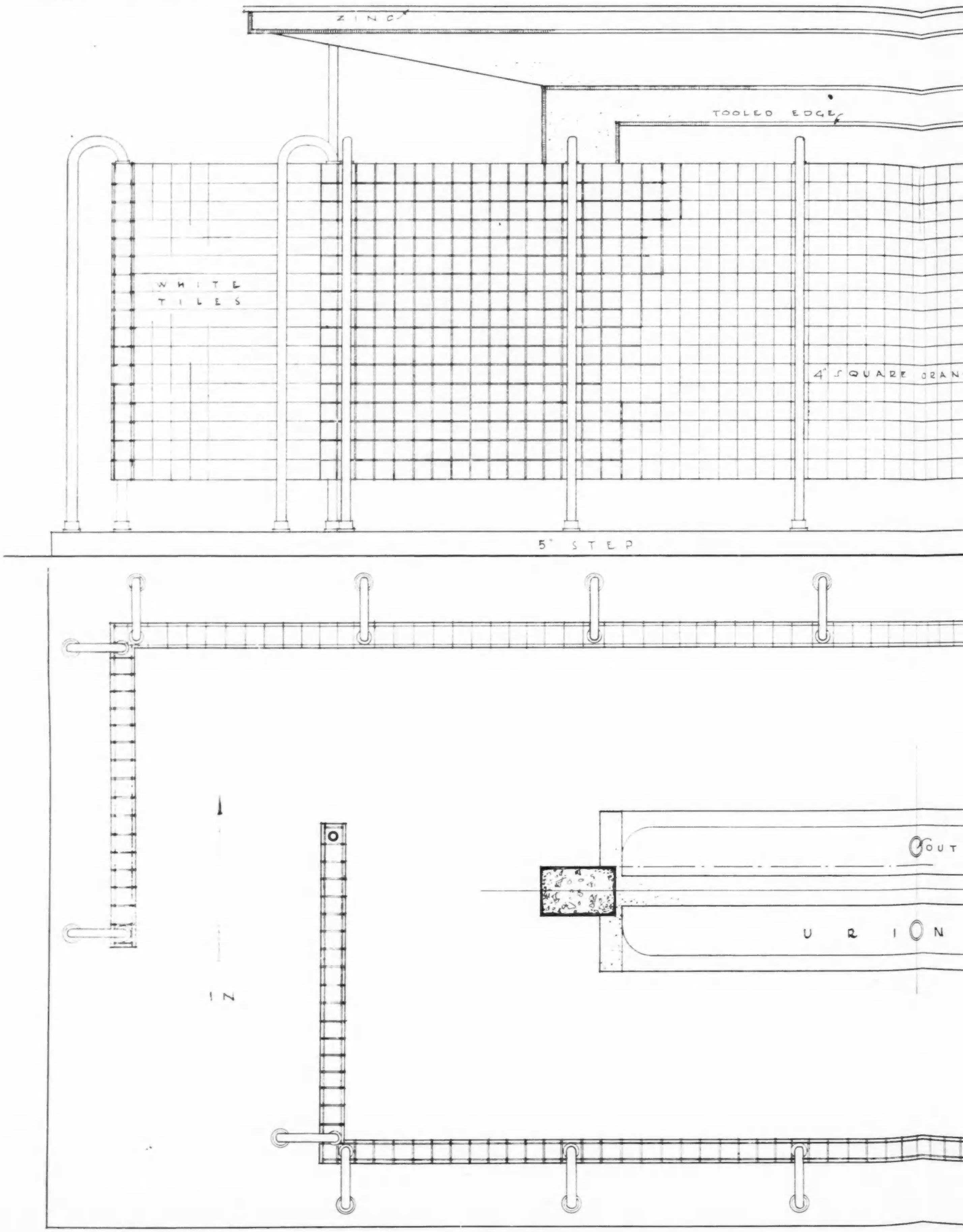


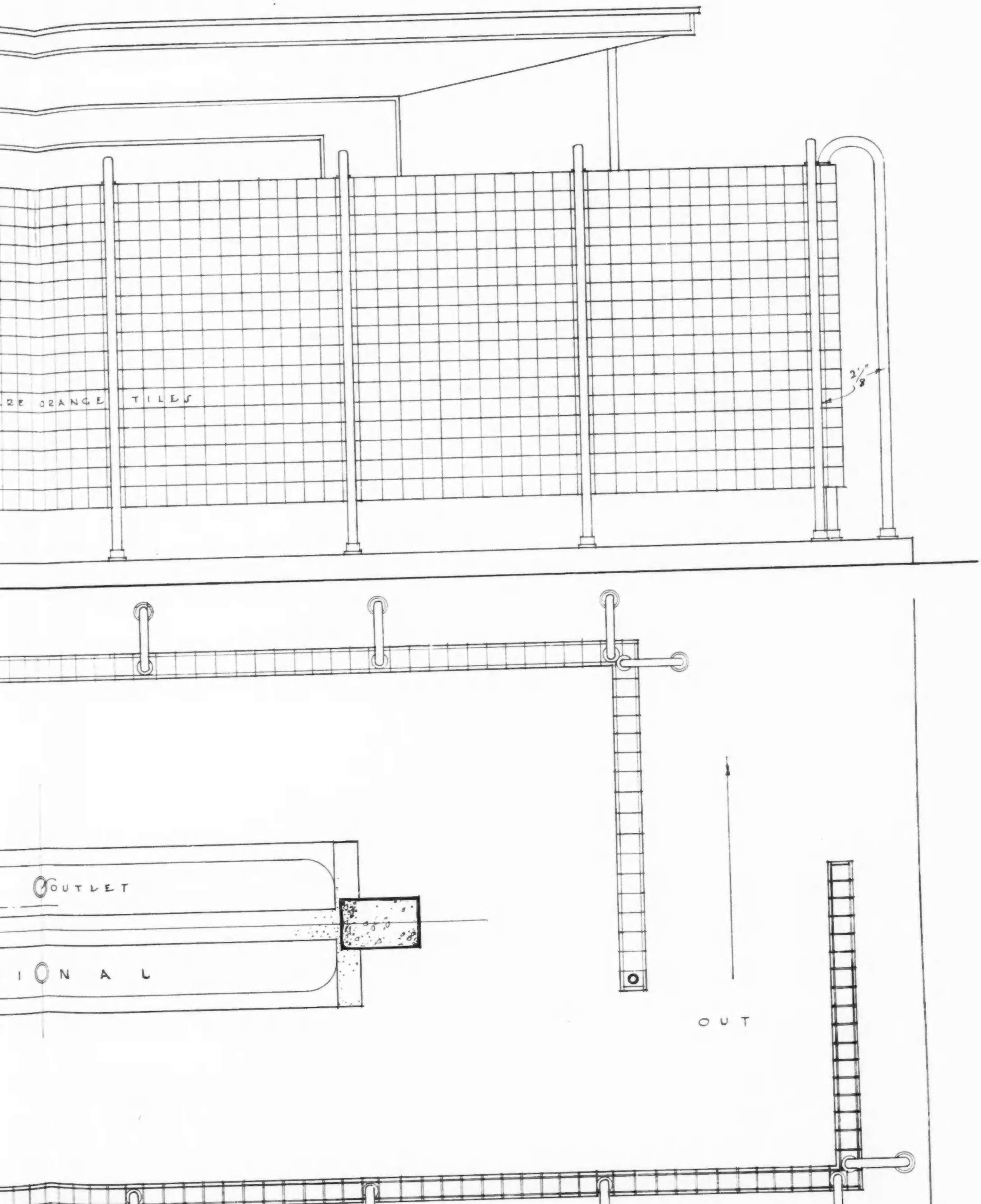
AN END VIEW, SHOWING THE SCREENED ENTRANCE

THE urinal, of which large-scale drawings appear within, reproduced to a scale of 1 foot = ½ in., is situated in public gardens near the Wilson Station in Prague.

The reinforced concrete canopy is supported by a pair of reinforced concrete piers, between which are arranged the stalls of a two-sided urinal. The concrete has a fine surface aggregate of hard grey stone, hammered generally, and tooled at the edges.

The 4¾ ins. thick screen, which has a core of concrete, suspended on inverted U-shape tubular metal rods, spaced at about 4 ft. centres, is tiled externally with 4 ins. square orange-red tiles, and internally with 4 ins. square white glazed tiles. The bottom of the screen is raised 11 ins. above the tiled floor of the urinal.


ZINC
TOOLED EDGE
WHITE TILES
4" SQUARE GRAN
5" STEP
OUT
URIN
IN



RE ORANGE TILES
2 1/8"
OUTLET
IONAL
OUT

SCALE ½" TO 1 FOOT.

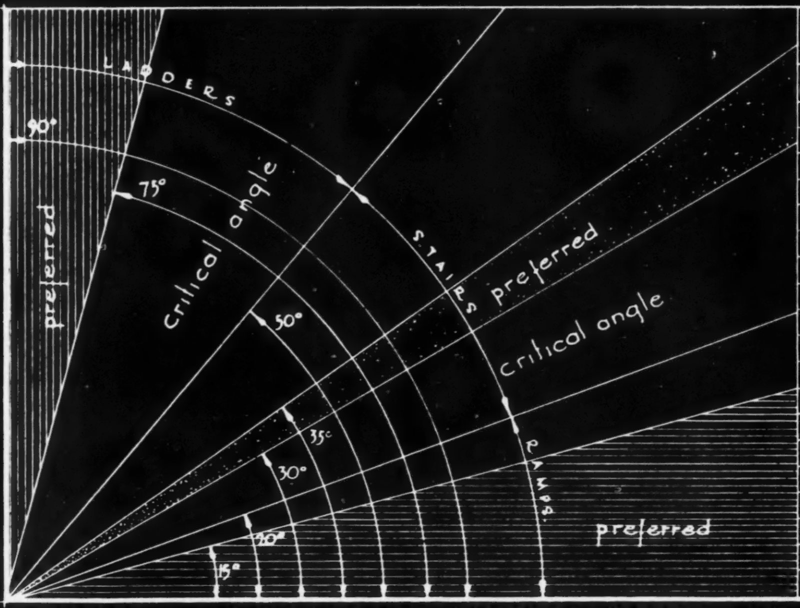

LADDERS
90°
75°
preferred
critical angle
50°
STAIRS
preferred
critical angle
35°
30°
20°
15°
RAMPS
preferred

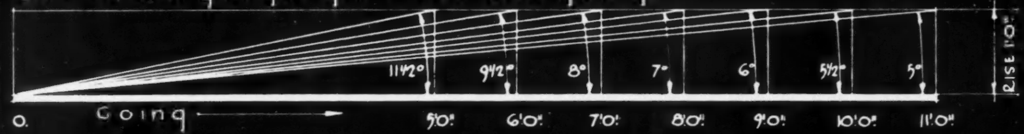
TABLE OF RISERS & TREADS FOR STAIRS

ANGLE WITH HORIZONTAL	RISE IN INCHES	TREAD IN INCHES
22° 00'	5	12½
23° 14'	5¼	12¼
24° 38'	5½	12
26° 00'	5¾	11¾
27° 33'	6	11½
29° 03'	6¼	11¼
30° 35'	6½	11
32° 08'	6¾	10¾
33° 41'	7	10½
35° 16'	7¼	10¼
36° 52'	7½	10
38° 29'	7¾	9¾
40° 08'	8	9½
41° 44'	8¼	9¼
43° 22'	8½	9
45° 00'	8¾	8¾
46° 38'	9	8½
48° 16'	9¼	8¼
49° 54'	9½	8

DIAGRAM OF PITCHES FOR LADDERS STAIRS AND RAMPS.

diagram from Workmens Compensation Service Bureau standards U.S.A.

RAMPS. angles for given rise and going


11½°
9½°
8°
7°
6°
5½°
5°
RISE 1'0"
0.
Going
5'0"
6'0"
7'0"
8'0"
9'0"
10'0"
11'0"

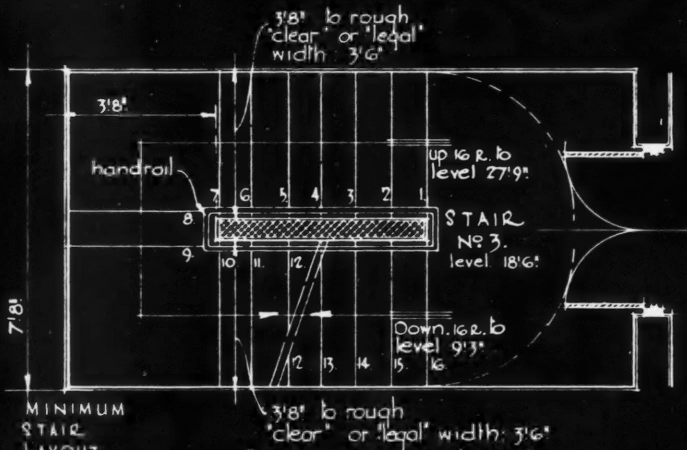
RULES for relative sizes of treads and risers.

① Tread + twice riser = 23"

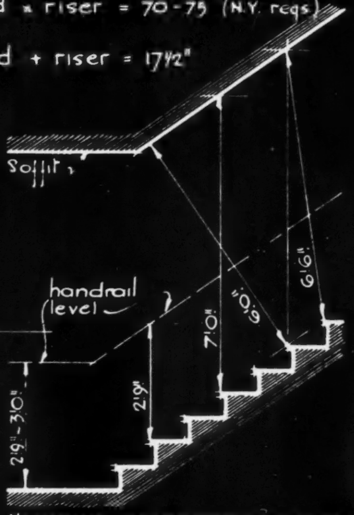
② Tread x riser = 66

③ Tread x riser = 70-75 (N.Y. regs)

④ Tread + riser = 17½"


3'8" to rough "clear" or "legal" width 3'6"
3'8"
handrail
up 16 R. to level 27'9"
7
6
5
4
3
2
1
8
9
STAIR No. 3. level 18'6"
10
11
12
Down. 16 R. to level 9'3"
7'8"
12
13
14
15
16
3'8" to rough "clear" or "legal" width: 3'6"

MINIMUM STAIR LAYOUT.


Soffit
handrail level
7'0"
6'0"
6'6"
2'9"
2'9"-3'0"

MINIMUM HEADROOM DIMENSIONS.

POPULATION to be expected in different types of buildings

A - from the 1931-32 Report of Advisory Council to the Building Industry (Lond.)

B. - from the New York Building Code.

floor area per person (approx.).

A.	B.
10 sq. ft.	10 sq. ft. in dancehalls, lodgerooms & places of assembly.
25 sq. ft.	15 sq. ft. in court rooms, restaurants & school classrooms.
75 sq. ft.	25 sq. ft. in stores, markets, lodging houses & reading rooms.
..	32 sq. ft. in workrooms.
..	50 sq. ft. in offices & showrooms.
100 sq. ft.	100 sq. ft. in hospitals, hotels, asylums, & other residential blgs.
150 sq. ft.	150 sq. ft. in warehouses & garages.
..	3½ sq. ft. in stairs.

INFORMATION SHEET: GENERAL DIAGRAMS AND NOTES ON STAIRS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

Supplement to THE ARCHITECTS' JOURNAL for May 10, 1933

INFORMATION SHEETS

• 17 •

STAIRWAY DIAGRAMS

•

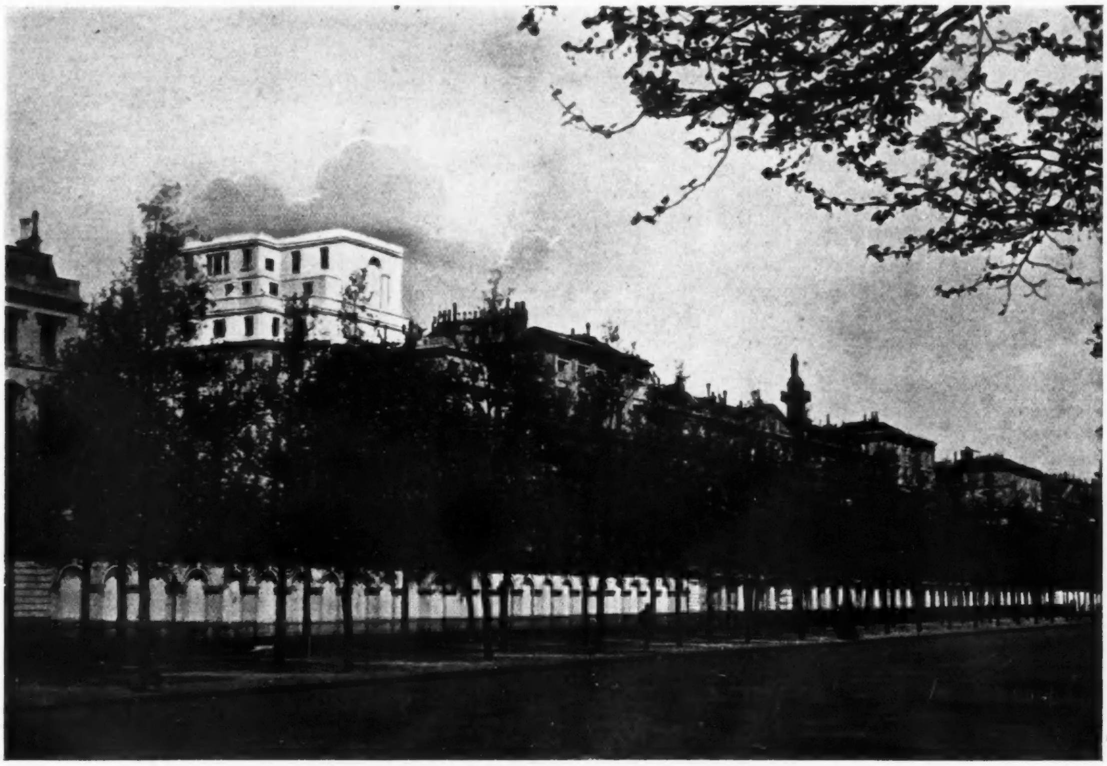
THIS week's Sheet, which gives general information essential to the economical planning of ladders, stairs and ramps, is the first of a series of nine dealing in detail with the layout and construction of staircases. A table of risers that will appear next week will be followed by details dealing with stairs for places of public entertainment, with roughing in dimensions for stairs of general buildings, with reinforced concrete stair construction and with interlocking pressed steel stair construction. A note on the last subject appears on page 635 of this issue.

The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes

THE EXCRESCENCE ON CARLTON HOUSE TERRACE

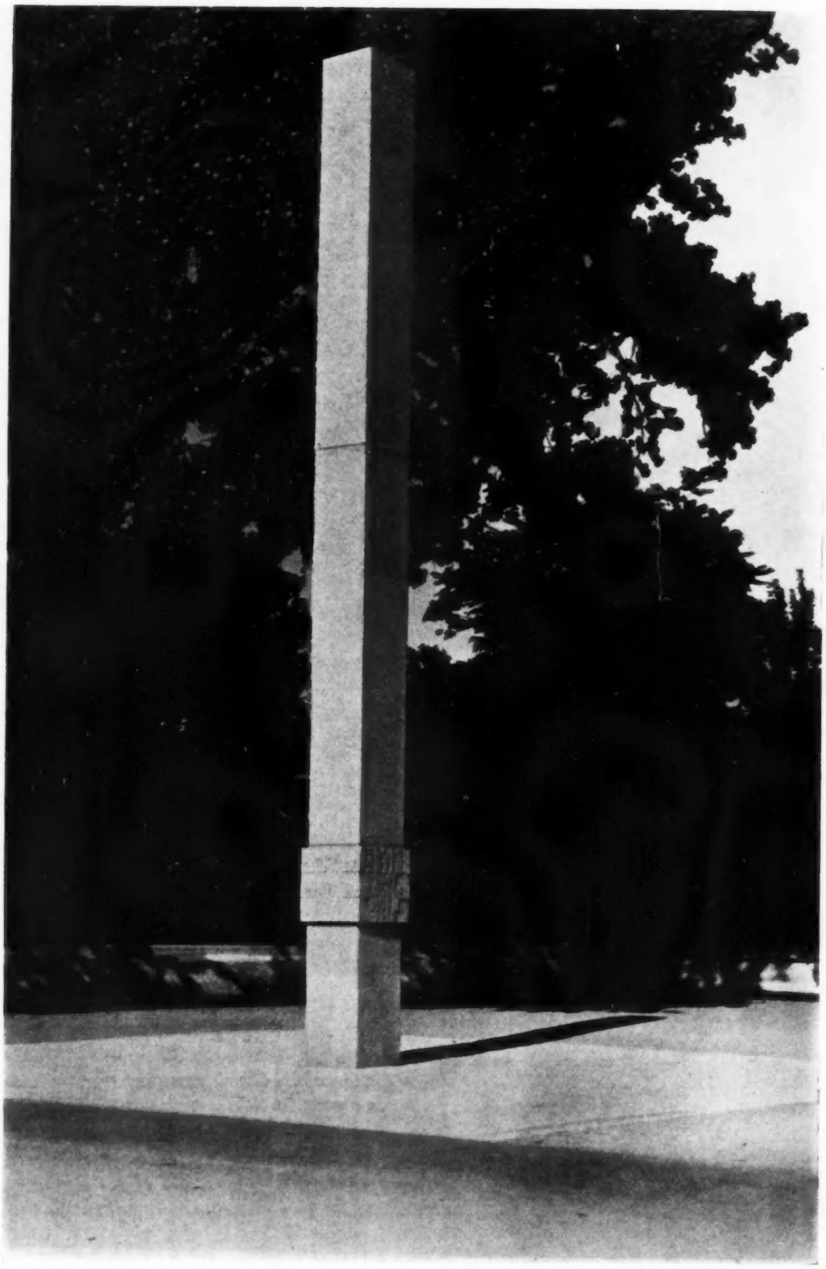
THE NEW BUILDING SEEN FROM THE MALL



CARLTON HOUSE TERRACE as it is today, showing the new building for No. 4 Carlton Gardens, nearing completion. It would need a dozen photographs, taken from various positions in St. James's Park, to show pictorially the full extent to which this building breaks the skyline of the Mall. But for the intervention of the Carlton House Terrace Defence Committee other parts of the Terrace would now no doubt be receiving the attentions of the housebreaker.

No reasonable person objects to tall buildings qua *tall buildings ; indeed, by American standards, No. 4 is little more than a mole heap ; what is objectionable, and what we, in common with most of the Press, the public, and the architectural profession, have protested strongly against is the lack of a sense of town-planning which is revealed in our Government departments.*

Within recent months, the Government—which is simply a national planning board—has twice shown the most cynical contempt for its own principles of ordered planning—once in Carlton House Terrace and once again in the telephone exchange, Faraday House. The latter (illustrated last week) succeeds in obstructing St. Paul's Cathedral by the simple expedient of ignoring the regulations as to the height of buildings laid down by the Government of London.



MEMORIAL TO AN ARCHITECT

> *" With unbiased consistency, he magnificently re-established the profession of the architect. Wagner's greatest achievement was that he has given us a firm, clear and new conception of architecture; a conception that was, and still remains as inspiring as imposing. His teaching embraced the entire field of architecture, including simple, yet boldly conceived, bases for the laying out of whole towns and groups of buildings."*
> —BRUNO TAUT, IN " MODERN ARCHITECTURE."

This austerely simple grey granite stele, which stands in one of the principal public squares of Vienna, is unique among memorials. In it one great architect's genius is the vehicle by which a nation's homage is paid to another—and all the more fittingly since the still living commemorator, Josef Hoffmann, was first pupil and then partner of Otto Wagner, the commemorated dead. The moral would seem to be that in those small countries ignorant and vulgar-minded politicians dismiss as " living on their past," famous architects are duly honoured—and honoured, not by the moribund convention of a servile reproduction, but by giving the freest scope to the creative spirit of the national tradition of which they have become a living part. Like the sovereign, architecture never dies; but styles, having their mortal span, succeed each other as do kings and dynasties upon the same throne. Had another great creative architect—a Scot, not an Austrian: Charles Rennie Mackintosh—been accorded a little honour in his lifetime he might have become a greater than Wagner. Where has Glasgow or Britain raised the meanest stone to witness they were aware he ever lived?

Otto Wagner (1841-1918) may be called the real Precursor of Modern Structural Architecture, just as Josef Hoffmann was the most notable of its earliest pioneers. His best-known buildings, which were built in the last decade of the nineteenth century, are all in Vienna; the Post Office Savings-Bank Headquarters, the huge complex of the Steinhof Asylum, a very " functional " block of flats in the Neustiftgasse, and the pressed-steel stations of the " Stadtbahn." It would be hard to overestimate Wagner's influence on men of the (then) younger generation like Peter Behrens, Josef Olbrich, Adolf Loos, Hans Poelzig, Van de Velde, Berlage and even Mackintosh.

If the decorative art nouveau *side of this logical planner's work is " of no importance to architectural history," it cannot invalidate the epoch-making place he occupies in it by virtue of his " flat, neat treatment of material, and pure, unshrouded presentation of construction."*

A PUBLIC RELATIONS COMMITTEE FOR THE R.I.B.A.

ARCHITECTS have consistently modelled their guild on the doctors'. Resolutions of the B.M.A. are the R.I.B.A.'s precedents for doing this or not doing that—a pertinent example being its code of professional conduct, which refuses to tolerate any form of individual or collective advertising.

A hundred years ago, though architects were largely gentlemen's gentlemen, surgeons still ranked as barbers, and the status of doctors was almost menial. As a result they were only sent for by those *in extremis*, or driven frantic with gout. Yet today the medical profession commands universal respect. Its corporate pronouncements are assured of the gravest attention, and its recommendations are carried out by private individuals and public authorities alike.

We have grown accustomed to seeking the advice of doctors for prophylactic reasons—quite as much to prevent disease as to cure it. This profoundly significant sociological change is not due to accidental causes; it has been brought about by persevering, and very intelligently directed, enlightenment of the public in regard to the practical value of medical science and its triumphant progress. But it has undoubtedly been accelerated by popular appreciation of the self-sacrificing spirit of eminent specialists in giving their services gratis in the big hospitals. Though its public services cannot be estimated in terms of money, the medical profession has a very "good press."

Doctors have been called "the guardians of the uprising generation, and of those as yet unborn," a title of honour which can be claimed by architects with equal justice. For, in so far as their much more limited opportunities allow, they constitute *the nation's one and only planning board*. Great as are the public services of doctors, they are not unparalleled. Architects, *qua* architects, render inestimable, though largely unrecognized, social and economic services, the beneficial effects of which would be infinitely greater and more far-reaching if (as in most civilized countries) the State allotted them wider instead of jealously restricted planning powers. In England (once again unlike most civilized countries) the architectural profession does not enjoy anything like the esteem, authority or influence of the medical. The result is an England still "minus a little (but very necessary) something" many other nations have already got. Ordinary citizens do not consult qualified architects in regard to houses, either prospectively or prophylactically. Because their homes are run up by self-architecting speculators, eked out by borough surveyors and engineers, few of the great public have ever met one. To the man in the street the architect is either an unpractical sort of fellow, with the same extravagant "arty" ideas as other "artists" or else one of a select little band of titled academicians who sit on vaguely official committees in virtue of the fact that they design (much as painters "compose") the façades of those buildings "which have to be impressive looking." He does not believe that the architect is useful, far less necessary, to himself, and so the nation.

Where the medical profession has succeeded in doing what it deliberately sets out to do—to impress the public with its value to the community—the architectural profession has so far signally failed. True, in the immediate sense of sickness *v.* health, architects are not actually as "indispensable" as doctors. But there are higher necessities for a nation than vaccines to fight epidemics; preventive medicine begins when the architect draws a plan.

The R.I.B.A. has shown a full sense of its responsibilities and commendable initiative in spreading the Gospel of the Necessity of Architecture. So, too, have various societies; though they are mostly preaching to the already converted. But all these efforts have been entirely unco-ordinated. If the mass of the population is to be reached and persuaded, co-ordination of all educative activities is a prerequisite of success. The economic crisis has brought British architects to the parting of the ways. As Theodore Roosevelt said of the British Empire, our profession must "get on or get out." *It must reorganize* its propaganda resources—and on the broadest possible basis—*or disintegrate*. Architects need a common rallying-point, or what Soviet ideology would call "a front," from which to launch an "offensive defensive" on the several octopuses of disorder, squalor, ugliness, reactionary obstructionism and that *laissez-faire* individualism we have allowed to run riot. Though only just set up, the Public Relations Committee of the Building Industry is already rendering that industry a great service. The R.I.B.A. is a cultural, not a commercial, body. We do not want an R.I.B.A. Publicity Committee to advertise architects, but we do need one to co-ordinate, and give direction to, every agency within and without the profession that is striving to make Mr. and Mrs. Everyman understand what sort of an England would be theirs without the architect to save her from herself.

Stanley Hamp, F.R.I.B.A., the new president of the Berks., Bucks. and Oxon Architectural Association. (See page 666.)

NOTES & TOPICS

BRIGHTER POST OFFICES

HOWEVER well entitled we are to jest about the anomalies and absurdities which distinguish our Telephone Service, there is no doubt that, from the point of view of design, we owe much to H.M. Post Office.

*

It is some years since Birmingham (through the efforts of its Civic Society) was allowed to have a really good cover for its telephone directory. Pillar boxes and Sir Gilbert Scott's telephone kiosk (as distinct from the other standardized atrocity) must command our respect and admiration. The lettering on mail vans is good; so is the new design of telephone instrument.

*

I attended last week the official opening of Dagenham Post Office, designed by the Office of Works, under Mr. F. A. Llewellyn's special care, to be district office for the Becontree L.C.C. Estate. Anyone who has seen the inside of an old type of sorting office would do well to have a look at this one—bright and airy and cheerful, and entirely unlike the dungeons which make one wonder how the addresses are read at all.

*

From the point of view of external design the building is an admirable combination of traditional Essex vernacular with an intelligent solution of the planning problem and expression of the present day. Every detail has been well thought out, even down to combining lightness with coolness and care of the employees' eyes, which has been achieved by the use of a special glass for roofing.

*

The Post Office, like other institutions, must go carefully if not slowly. Now that Dagenham has proved a success we can hope that it will be regarded as a model for future occasions.

FOUR-INCH WALLS—AND SEVENTEEN FEET

How refreshing it is to read about the crypt of Westminster Abbey. Because I like Abbeys? Partly; but when I think of how much of my time is given up to talking of 4-inch walls and plate-glass windows, then the thought of the seventeen or more feet of masonry that surround the little crypt is as a pillow to my tossing brain.

*

Once upon a time the walls were a fragile 12 feet or more. Then another 5 feet were added for security. The London Building Act came somewhat later, but was built on the same sturdy lines.

*

OLD SMETHWICK HALL—LAST WEEK'S BIG CHANCE

Last week I gave my readers a big chance. Half a corona had to be won in an easy competition with no entrance fee and no annoying conditions. Competitors simply had to write down on a piece of paper the whereabouts of Smethwick Old Hall.

*

Well, the prize has been won—by a competitor entering under the pseudonym of *Arthur*.

*

"Smethwick Old Hall (writes *Arthur*) and the stables, and the village pub., and also, I believe, the village, are none other than the works of Chance Bros., the glass kings of Birmingham."

*

Arthur is right. What was once a tiny hamlet outside Birmingham is now a centre of the glass industry, vast, impressive and rather terrifying! I went down to it in one of those select little architectural "cricket parties" which Mr. M. L. Anderson arranges with the discretion of a manager of the M.C.C.

*

If you, reader, get such a chance, I advise you to take it. You will spend one of the most dramatic—and dangerous—afternoons of your life.

*

My memory is of a tongue—the most articulate and mobile tongue I ever remember to have seen. It belonged to the enormous artist who spun the Crown glass, and it darted and shone in the light of the furnace like the head of an angry snake, while the sweat poured down the artist's face. A vivid commentary on the miracle that was being worked.

*

Arthur, by the way, accuses me of being disingenuous. My method of describing the site, he says, was legitimate, until I got to the cows. "Cows in Smethwick!" cries *Arthur*; "Really, Astragal, that *is* going a bit too far."

THE ARCHITECTS' JOURNAL THURSDAY

TO BE PUBLISHING DAY

AS from the beginning of June THE ARCHITECTS' JOURNAL *will be published on the Thursday of each week instead of on the Wednesday, as at present. Next week's issue will appear on Wednesday as usual; but the issue of the following week, which would normally be published on Wednesday, May 31, will be dated Thursday, June 1.*

I'm sorry to disillusion *Arthur*, but it's only going as far as the Recreation Ground.

*

YET ANOTHER BIG CHANCE

And here is yet another big chance. For the midland reader.

Sepoc
eniw
egdol
yksihw
nig
mur

operative word : nainurfluw.

*

Not a hundred miles from Birmingham. Where have I been ? Prize : half a bottle of yksihw.

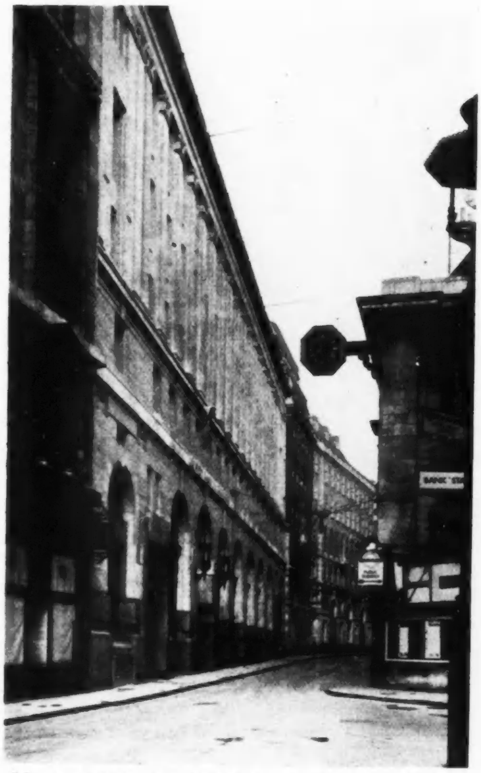
*

THE A.A. RECEPTION

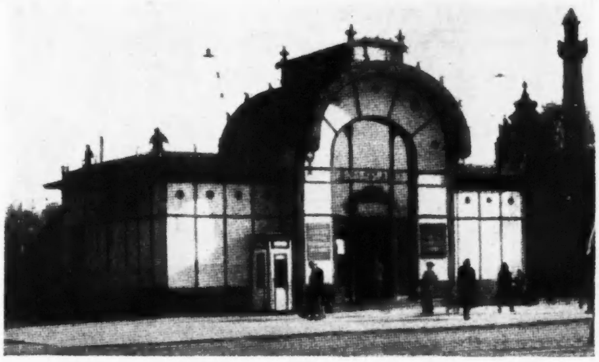
Passing to and fro in the Library of the A.A.—where, on Thursday, the President and Mrs. Knapp-Fisher shook hands with more than a thousand guests—in the Members' Rooms, anon in the Dining Rooms ; penetrating, not without effort, into the very Ching's Head itself, I received a sort of composite mental photograph of architectural physiognomy.

*

You tell a sailor by his eyes. An architect, too, I fancy. The men in whose minds lies the plastic future of England have eyes not so very different—less keen, perhaps, but more introspective, and with a touch of the visionary, looking out on other worlds than this with some amazement. But mouths and chins are for the most part severely practical. And, if lines go for anything, not devoid of humour.



Nominated for the R.I.B.A. London Architecture Medal : Lloyds Bank, Lombard Street elevation, by Sir John Burnet and Partners, with Campbell Jones, Sons and Smithers (see note on page 646).



Designed in pressed steel by Otto Wagner in 1898 : Karlplatz, one of the Stations on Vienna's "Stadtbahn" (see also frontispiece of this issue).

*

There was reason for amazement when Vanda and Vladimir at last appeared to entertain the serried ranks of visitors in the Lecture Hall with their exhibition dances. The factor of safety must have been perilously low. After which, one was lost in the thronged mazes of the dance. A night, in fact, of A.A.-maze-ment (O, Ching !).

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, May 17

R.I.B.A., 9 Conduit Street, W.1. Exhibition of architects' sketches, etchings, oil and water-colour paintings. Until May 22. 10 a.m. to 8 p.m. (Saturday, May 20, 5 p.m.). 10 *a.m.*

ROYAL ACADEMY, Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.1.* Exhibition of photographs, etc., depicting the progress of air travel. Until May 25. 10 a.m. to 10 p.m. 10 *a.m.*

MUNICIPAL SCHOOLS OF ARTS AND CRAFTS, Birmingham. At the Museum and Art Gallery. Exhibition of students' work. Until May 24. 10 a.m. to 5 p.m. (8 p.m. on Wednesdays). 10 *a.m.*

SOCIETY OF CHEMICAL INDUSTRY. At the Science Museum, South Kensington, S.W. "Plastics—Their Use in the Paint Industry." By Dr. L. A. Jordan. 4.30 *p.m.*

Thursday, May 18

INSTITUTE OF BRITISH DECORATORS, Painters' Hall, E.C. "The Brangwyn Panels." By Frank Rutter. 8 *p.m.*

Glass Convention. At Buxton. Until Saturday, May 20.

Saturday, May 20

Sunrise 5.2 a.m. Sunset 8.52 p.m.

HANTS. AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION. In the Isle of Wight. Annual General Meeting. Also, excursion to the works of the Cement Marketing Co., Ltd.

LONDON AND MIDDLESEX ARCHÆOLOGICAL SOCIETY. Visit to Leyton Parish Church. *Meet at the Church* at 3 p.m. 3 *p.m.*

Monday, May 22

R.I.B.A., 9 Conduit Street, W.1. "The Architectural Antecedents of Sir Christopher Wren." By Geoffrey Webb, M.A., Cantab. 8 *p.m.*

Tuesday, May 23

LONDON SOCIETY. Visit to the works of the *Gas Light and Coke Co., Sands End, Fulham, S.W.* (Including the old Sandford Manor.) 2.45 *p.m.*

SOUTH-EASTERN SOCIETY OF ARCHITECTS. (Croydon and District Chapter.) *At the Public Halls, Croydon.* Annual General Meeting : 7 p.m. Presentation of prizes won by students during the past session : 7.30 p.m. "When Building, Behave Yourself." By T. Graham Crump, L.R.I.B.A. : 7.45 p.m. 7 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

Preventive medicine begins when the architect draws a plan 643

Astragal's little competitions continued 644

" No ! Of course we couldn't possibly afford an arshetekt ! " 654

Suppose a small builder has £100 with which to speculate. How does he set about it ? 663

How joints in fibrous plaster work can be prevented from opening and showing dark cracks 666

An alternative to lead where the lead-work in the roof is defective 666

A cure for house measles 666

●

COUNCIL OFFICES FOR BRISTOL

The Bristol City Council decided last week to prepare a town planning scheme which will provide for the erection of new municipal buildings on the College Green site. The scheme, when prepared, will be submitted to the Council for approval.

WOLVERHAMPTON'S SECOND OLDEST CHURCH

Wolverhampton is in danger of losing its second oldest ecclesiastical building.

Parts of St. John's Church, which has been surveyed by Mr. Bertram Butler, are said to be in an extremely dangerous condition, and must, if it is to be saved, be repaired at once.

When the church, which is in the Italian style, was built in 1758, the architect used freestone from the Wrottesley estate at Perton. This proved too soft to withstand the joint action of rain and acid fumes from neighbouring galvanizing works—since removed—and has for long shown signs of decay.

In some places the stone has been worn away to such an extent that rain has carried fragments down in solution and stalactites have been formed.

Now, nearly 170 years after it was built, the structure shows urgent need of repair. The vicar is appealing for financial support to save the building. Here, citizens of Wolverhampton, is an opportunity to preserve the finest church you have. *It must be saved.*

Recent statistics indicate an increase in building activity which might well be somewhat more than seasonal. This small but welcome improvement, undoubtedly due in part to the efforts of the Special Committee for Public Relations of the Building Industries National Council, must be fostered. The greatest improvement has taken place in the smaller types of dwelling-houses. The lesson of low costs and low interest rates must be placed before those responsible for larger projects. In the interests of the industry this Committee must continue to be fully supported.

Subscriptions to the fund should be addressed to Mr. Oswald Healing, at 5, Duke Street, Adelphi, W.C.2.

AUCTIONEERS AND ESTATE AGENTS AT DINNER

The annual dinner of the Auctioneers' and Estate Agents' Institute was held in London on Thursday last. Those present included Sir Raymond Unwin, P.R.I.B.A., and Sir Edwin Lutyens, R.A., P.I.A.A.S. Mr. Stewart Bevan, M.P., said that the home of the Institute in Lincoln's Inn Fields was, in his opinion, one of the most beautiful buildings that had been erected in London during the past few years.

THE UNEMPLOYMENT FIGURES

The seasonal improvement in employment, it is pointed out in the *New Statesman* for May 13, is a good deal more marked this spring than it was last year, thanks mainly to a substantial revival of activity in the building trades.

There is, unfortunately, no corresponding sign of revival in other industries. There the improvement is no more than the expected seasonal rise. We may, of course, rejoice that we are not going downhill so fast as a good many other countries, and that the mere check to the decline is having some stimulating effect. But we must not rejoice too much. We have to bear in mind that the new factor of world currency instability arising from the depreciation of the dollar has not yet had time to produce any effect ; and accordingly we cannot afford to place too much reliance on a relatively small upward turn in employment which is mainly seasonal, concentrated largely on one industry, and may prove to be merely temporary. All we can say is that building is beginning to rally from the knock-down blow it received after the crisis of 1931, and that this is a good sign of the readiness of industry to respond if the right stimulus can be supplied. It remains as true as ever that this stimulus can come from only two sources—a recovery in world conditions and an active policy of expansion through public expenditure on capital services.

Percival C. Blow, A.R.I.B.A., the new president of the Essex, Cambridge and Herts. Society of Architects. He will be a vice-president of the R.I.B.A. Conference, to be held at Cambridge from June 21-24.

NEW BUILDINGS IN PARLIAMENT SQUARE

The Town Planning Committee of the L.C.C. referred last Saturday to their recent report on a proposal to erect a block of offices on a site facing Parliament Square. The committee, in their report, which was discussed at a meeting of the L.C.C. last night, stated :—

> We have informed the applicants that the Council are not prepared to approve the proposals submitted, but would give consideration to a further application, accompanied by plans, for permission to erect a building conforming to the spirit of the requirements as to height intimated during the discussions.

R. I. B. A.

THE NEXT MEETING

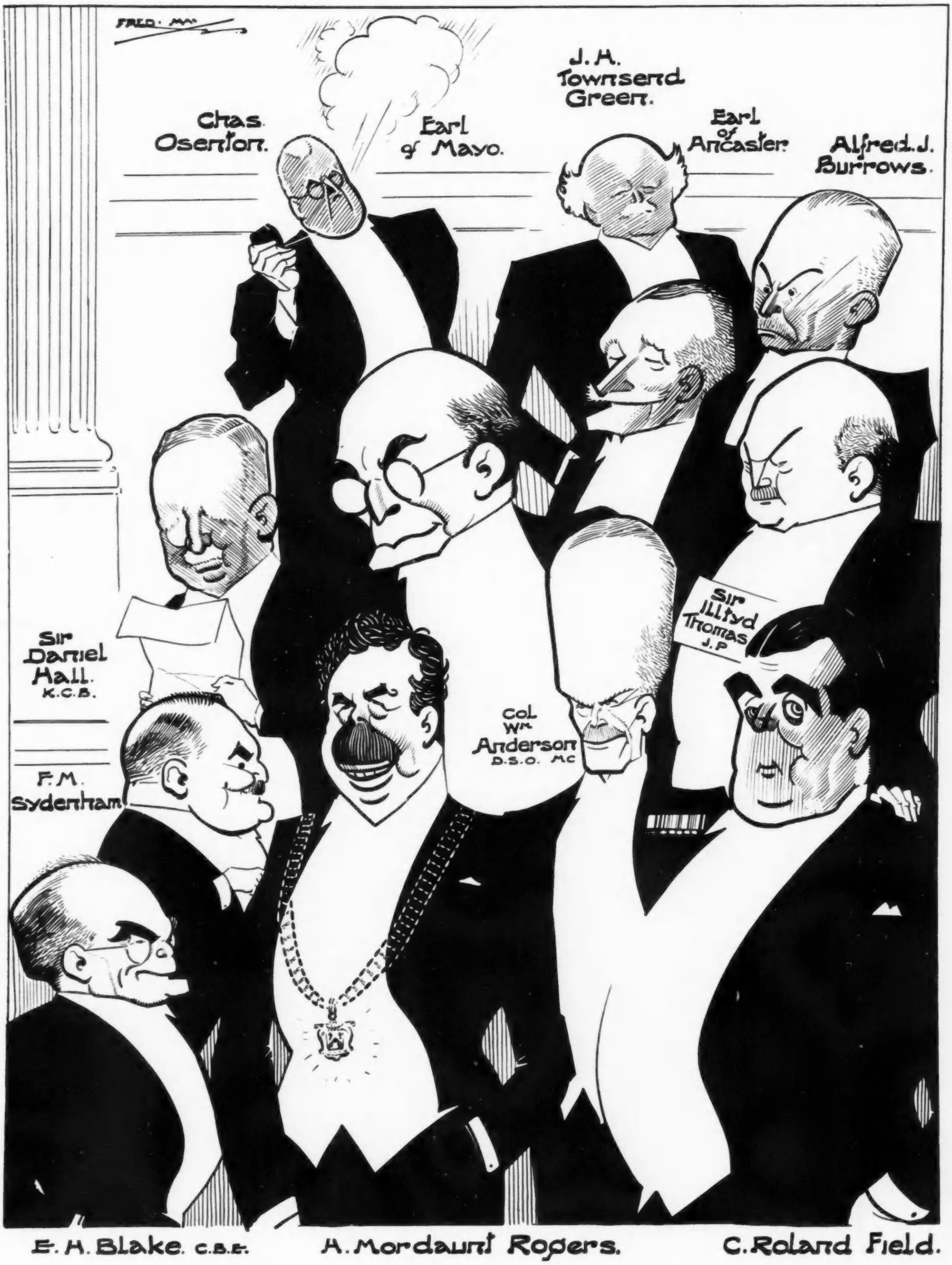
A paper entitled " The Architectural Antecedents of Sir Christopher Wren" will be read by Mr. Geoffrey Webb, F.R.I.B.A., M.A., Cantab., at the Institute on Monday next at 8 p.m.

LONDON ARCHITECTURE MEDAL 1932

The Jury entrusted by the R.I.B.A. with the Award of the London Architecture Medal have announced their award for the year 1932.

After careful examination of drawings and photographs of all the buildings which were nominated for the honour, the Jury have given their Award in favour of Lloyds Bank Headquarters, Lombard Street Elevation, designed by

AT THE ANNUAL DINNER OF THE A.E.A.I.


FRED. MAY
Chas. Osenton.
Earl of Mayo.
J. H. Townsend Green.
Earl of Ancaster
Alfred. J. Burrows.
Sir Daniel Hall. K.C.B.
Sir Illtyd Thomas J.P
Col. Wm. Anderson D.S.O. MC
F. M. Sydenham
E. H. Blake. C.B.E.
A. Mordaunt Rogers.
C. Roland Field.

Some of the personalities present at the annual dinner of the Auctioneers' and Estate Agents' Institute, held at the Connaught Rooms, London, on Thursday of last week. The sketches are by Fred May. See note on facing page.

Sir John Burnet and Partners, with Messrs. Campbell Jones, Sons and Smithers.

The R.I.B.A. London Architecture Medal is awarded annually to the architect who has designed a building of merit completed during the three preceding years within the County of London.

EXAMINATIONS

At the R.I.B.A. Statutory Examination for the Office of District Surveyor in London, held on May 3, 4 and 5, six candidates presented themselves, and the following were successful in the examination: Messrs. Ernest P. Featherstone and Ian D. Walker.

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities, also held on May 3, 4 and 5, four candidates presented themselves, and the following were successful in the examination: Messrs. Thomas P. Chester and Regent Robson.

ELECTION OF MEMBERS

At a recent meeting of the Council of the Institute, the following members were elected :—

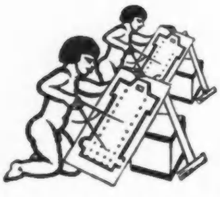
As Hon. Corresponding Member (1): Mr. M. Lalewicz.

As Fellows (11): Messrs. J. C. C. Bruce, G. W. Knight, B. A. Miller, C. R. Pinsent, D. C. Rae, A. L. Iredale, R. M. Mauchlen, J. Morris, W. J. Davis, T. H. Johnson, C. Saunders.

As Associates (17): Messrs. C. W. Brown, G. B. Drury, E. R. Horsburgh, G. Kenyon, P. Lingwood, (Miss) L. M. McLay, (Miss) M. I. Mayo, A. V. Montague, D. W. Naylor, H. T. Rees, E. M. Rice, L. F. Richards, L. V. Sathe, C. P. Saurin, R. G. Simpson, (Miss) C. S. Stammers and A. F. Wallace.

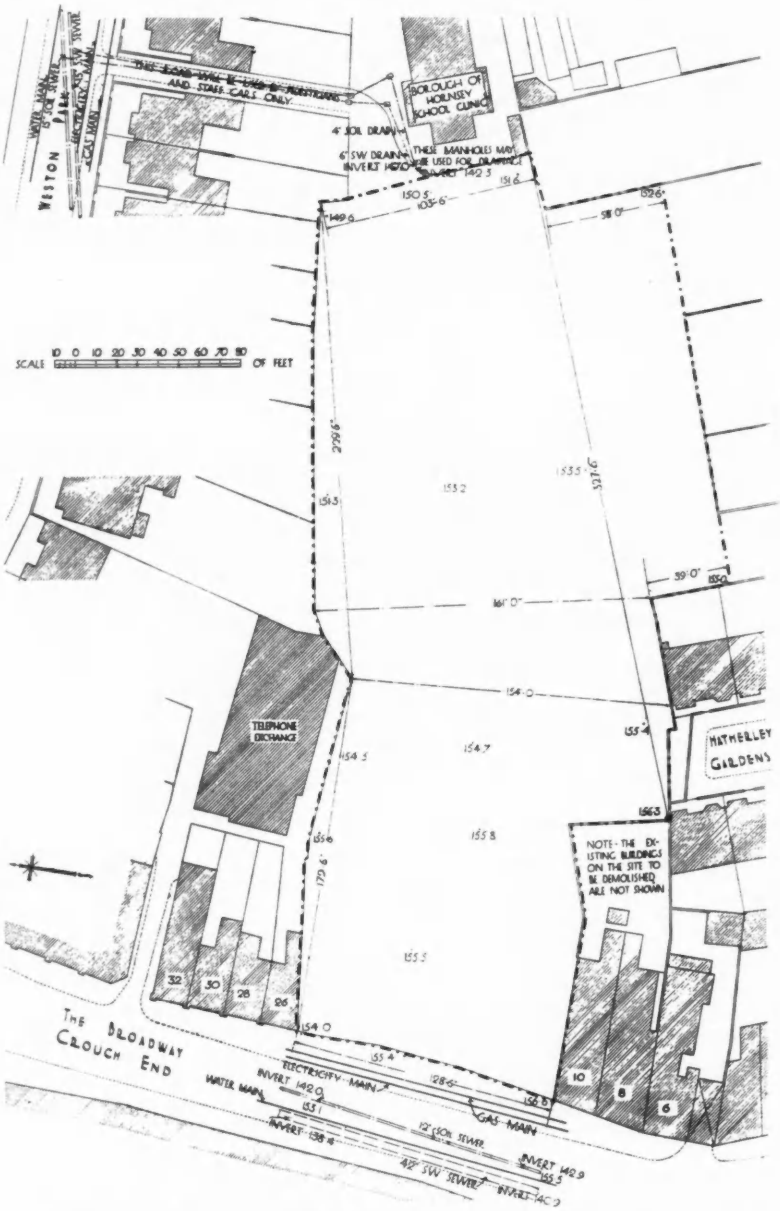
As Licentiates (11): Messrs. R. J. Begley, J. B. S. Comper, J. W. Corney, S. Gregson, J. McNab, J. W. Mayhew, L. Pugh, C. E. Thomas-Medhurst, G. Tuxford, Lt.-Col. G. Westcott, and A. W. Wheatley.

COMPETITION



NEWS

BOROUGH OF HORNSEY


WESTON PARK
WATER MAIN
15" SOIL SEWER
ELECTRICITY MAIN
GAS MAIN
AND STAFF CARS ONLY
BOROUGH OF HORNSEY SCHOOL CLINIC
4" SOIL DRAIN
6" SW DRAIN INVERT 147.0
THESE MANHOLES MAY BE USED FOR DRAINAGE INVERT 142.5
150.5
105'-6"
151.6
149.6
152.6
58'0"
SCALE 10 0 10 20 30 40 50 60 70 80 OF FEET
299'6"
151.3
155.2
155.5
327'6"
39'0"
155.0
161'0"
154.0
TELEPHONE EXCHANGE
154.5
154.7
155.4
HATHERLEY GARDENS
156.3
155.6
155.8
179'6"
NOTE - THE EXISTING BUILDINGS ON THE SITE TO BE DEMOLISHED ARE NOT SHOWN
155.5
32
30
28
26
154.0
THE BROADWAY CROUCH END
155.4
ELECTRICITY MAIN
128'6"
INVERT 142.0
WATER MAIN
155.1
156.8
GAS MAIN
INVERT 138.4
12" SOIL SEWER
INVERT 142.9
155.5
42" SW SEWER
INVERT 140.9
10
8
6

Plan of site, which comprises the whole of the area contained in the chain lines. Existing buildings to be removed are not shown. The scale has been added so that competitors may use this plan for preliminary small-scale sketches.

THE HORNSEY COMPETITION

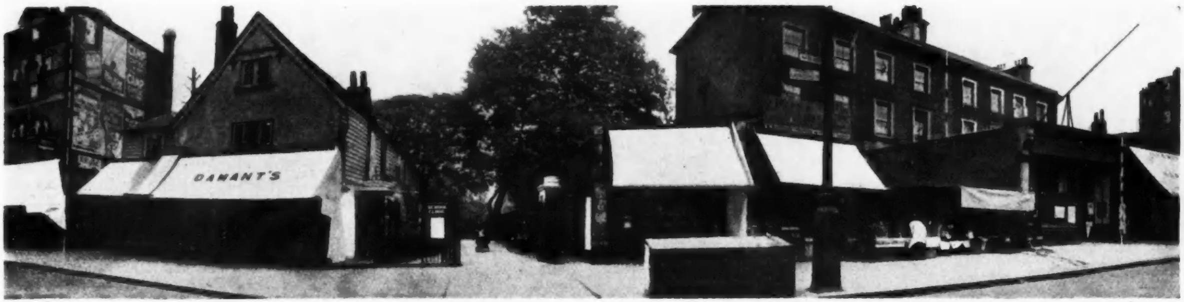
Borough of Hornsey; Competition for new Municipal Buildings. Assessor: C. Cowles-Voysey, F.R.I.B.A. Premiums: £350, £250 and £150. Last day for questions: May 30, 1933. Sending-in day: September 23, 1933. Conditions from Town Clerk, Town Hall, Highgate, N.6. Deposit one guinea.

I. A visit to the Site and First Analysis

By "Iodos"

THE Hornsey Corporation are to be congratulated on being the first, after a considerable interval, to announce a major competition for municipal buildings, and thus giving a lead to revived activity in an increasingly important sphere of constructional work. They are further to be congratulated on obtaining as their assessor Mr. Cowles-Voysey, whose post-war record in this field is outstanding. It is doubtful, however, whether they should be congratulated on their choice of a site, which at a first inspection seems to give little chance of a really successful civic centre from the point of view of either convenience or dignity and beauty: but this is only to congratulate them somewhat grimly on setting the many scores of architects who may be expected to compete an unusually difficult set of problems. Difficulties and limitations of site are the stuff that have made concrete many fine architectural dreams and given them edge and individuality: they may here again stimulate a daring and vigorous solution: but it is hard to see how the merits of any building could

TOWN HALL COMPETITION REVIEWED



The curvature produced photographically is false, the frontage being approximately straight, as shown on the plan of the site. The limits of the frontage are indicated by chain-dotted lines; the buildings between them are to be pulled down.

FRONTAGE OF SITE TO BROADWAY, CROUCH END

show themselves on so enclosed a site unless its uniformly mean and disorderly neighbours were swept away.

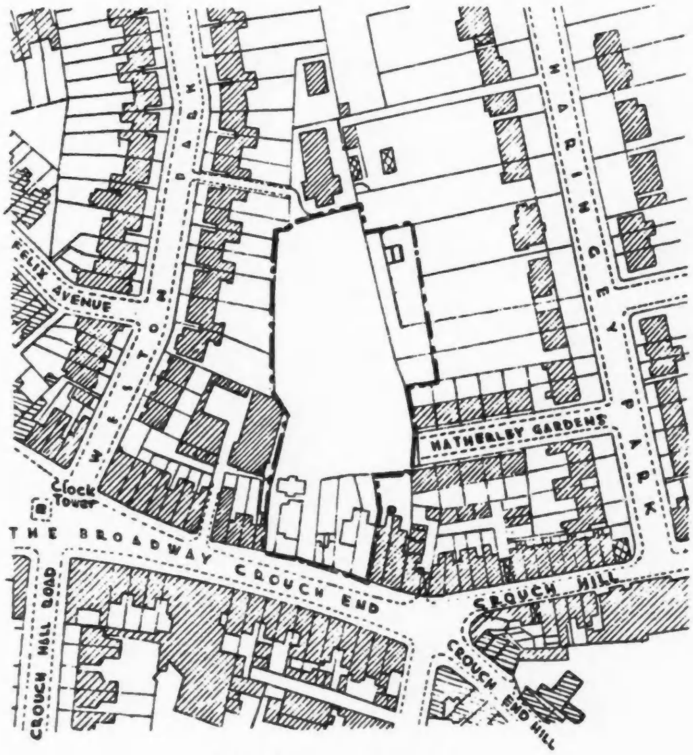
A VISIT TO THE SITE

The conditions recommend that competitors should visit the site. The clause might well have been supplemented by a suggestion that the visit should be made as early as possible, so that any depressing effects should have time to wear off before designing work had to be started. Such information as is given in the conditions is a colourless understatement. The following notes from a personal visit may help to complete the picture :—

Approaches : "The Broadway is the main approach. It is congested and cannot be used for parking cars." The Broadway (which opposite the site is far from broad) is in fact a *very* congested bottle-neck from which main traffic routes radiate in all directions ; it is also a busy shopping centre and has no buildings of any architectural merit (which at least gives the competitor a completely free hand in elevational treatment). The Broadway is too short and irregular to have any marked street frontage and the conditions wisely insist that the buildings, however arranged, "must be set back so as to form a forecourt that can be used for parking cars, and so as to leave a through way for vehicles from the Broadway into Hatherley Gardens." But Hatherley Gardens is a narrow cul-de-sac of small and mediocre terrace-houses, quite unsuitable for more than a convenient reserve exit.

The Site : The conditions leave the site plan (which is conveniently provided to the same scale as the required drawings, 16 feet to 1 inch) to speak for itself, noting only that "the Corporation have no rights of light over adjoining properties." The main mass of ground available is an open space, at present used—and heavily used—as a children's playground : it is to be hoped that a new playground will be provided in its place, though it could scarcely be so conveniently related to the clinic. Though the schedule of accommodation includes a car park "as large as can be provided on the site," competitors may perhaps be able to retain a portion of the playground at the clinic end. The site is level and seems satisfactorily served with electricity, gas, water and sewers, but the conditions do not mention that almost the whole area, except the parts occupied by buildings to be pulled down, is fairly thickly covered by trees, some large, some small, but all in good condition. The majority of these will inevitably have to go to provide space and light for the new building ; but the retention of others as a setting and to screen the ugly back sides of adjoining property will be a nice problem

View of school clinic from east end of site. Trees of this frequency and type cover most of the site.



The site and its surroundings.

for the successful architect, to which competitors might well give some preliminary thought.

ADJOINING BUILDINGS : There is no question that the site—an irregular rectangle about 400 ft. east to west by 150 feet average north to south—is sufficient for the required accommodation. But any close approximation to the general arrangement that has become increasingly standardized in recent years, to a considerable extent through Mr. Cowles-Voysey's influence, would seem to be ruled out through the long narrow shape and the compulsory setting-back from the very restricted frontage. Of adjoining buildings only the Telephone Exchange would appear likely to interfere materially through rights of light ; it occurs unfortunately opposite a re-entrant angle at the other side of the site, and the two restrictions may together force the main blocks of new building still further back from the main road. The Telephone Exchange—dating from before the days when the Office of Works took such matters properly in hand—is a very ugly red-brick building, with which no self-respecting scheme could attempt to harmonize. The School Clinic at the eastern end is a much more respectable affair in symmetrical pseudo-Georgian style—a heavy single-story treatment in red brick with artificial stone dressings and sash windows. The pros and cons of some attempt to harmonize with the clinic would seem closely balanced ; but to follow its marked axis very far is likely to lead the designer into further difficulties, and the independent-minded may be glad to leave the clinic alone behind a screen of preserved trees.

THE ACCOMMODATION REQUIRED

Compared with the restrictions imposed by the abnormalities of the site, experienced competitors will find the limits set by the very normal schedule of accommodation relatively easy. Not the make-up of the several units, but their piecing together in the available space, constitutes the main problem. Realizing this, the assessor has given more freedom than usual in the disposition of the various departments on the several floors. The requirements may be summarized as follows (areas are round-figure approximations, exclusive of corridors, etc.) :—

(*A*) *Council Suite :* about 6,000 sq. ft. (including Council Chamber, 1,750), " suitably on the First Floor."

(*B*) *Town Clerk's Department :* about 1,600 sq. ft., " on Ground or First Floor."

(*C*) *Borough Engineer's Department :* about 4,000 sq. ft. " on Ground or First Floor or both."

(*D*) *Borough Treasurer's Department :* about 4,000 sq. ft. (including public Rates Office, 720), " on Ground Floor."

(*E*) *Medical Officer's Department :* about 1,600 sq. ft., no floor suggested, but " should be easily accessible from Clinic " and from Enquiry Office at Main Entrance.

(*F*) *Education Department :* about 2,300 sq. ft., no floor suggested.

(*G*) *Miscellaneous :* the various staff, plant and store rooms, etc. ; it seems to be indicated that the greater part of such accommodation might suitably be placed in a Basement, which would be not less than 6,000 sq. ft. (including a Garage of 1,500).

(*H*) *Caretaker's Quarters :* probably about 800 sq. ft., no floor suggested.

(*J*) *Public Assembly Hall :* for an audience of 800—1,000 " and a gallery " of unspecified size " in addition." The hall is of the multi-purpose type requiring suitable arrangement and ancillary accommodation for public meetings, lectures, concerts, amateur theatricals, cinema performances, dancing and banquets.

Competitors will probably find that the accommodation settles down into two blocks—Municipal Offices (*A* to *F*) and Assembly Hall (*J*), with *G* and *H* allocated between them as convenient. But, though there should be " a car approach to the principal entrance " of the Hall, there should also be a " direct and dignified approach from the Council Suite for use when the Hall is used for municipal functions "—presumably under cover. The Corporation, rather optimistically " have in mind the expenditure of approximately £100,000 " for the whole of the work, exclusive only of furniture, movable fittings and fees.

SOME QUESTIONS

Having got his conditions and studied them, and having visited the site, the wise competitor will frame such questions as he wishes to ask, and then allow himself a breathing space for general reflection and the collection of any relevant examples, including especially the assessor's own works (a short list of references to back numbers of THE ARCHITECTS' JOURNAL is added below). There will be time enough for the working-out of schemes after the answers to questions have been received.

My own list of questions would include the following :—

(1) Is it desired to retain any portion of the site as a children's playground in connection with the clinic ?

(2) Is it desired to retain the trees wherever possible, provided light and traffic circulation are not interfered with ?

(3) For what number of people (above the 800—1,000 mentioned) is the gallery in the Hall to be designed ?

(4) Should the approach from the Council Suite to the Hall be fully enclosed, or merely under cover ?

(5) Will banquets take place in the Hall itself or should a separate refreshment room be provided ?

(6) The conditions provide that the Borough Engineer will " act as a consultant with the successful architect in the carrrying out of the work." Does this mean that he will perform in full the functions of a consulting engineer ? if so, for what—the structure ? heating ? ventilating ? lighting ? what responsibility will he take ? and is he to be paid by the Corporation or by the architect out of his fees ?

LIST OF REFERENCES TO BACK NUMBERS OF THIS JOURNAL

Municipal buildings at :

Beckenham : competition (Lanchester, Lucas and Lodge, winners), November 9, 1927.

Bognor : competition (C. Cowles-Voysey, winner), July 27, 1927 ; as executed, March 11, 1931.

Bridgeton : competition (C. Cowles-Voysey, winner), September 3, 1924 ; as executed, May 27, 1931.

Coulsdon and Purley : competition (W. B. Nicholls and B. Hughes, winners ; C. Cowles-Voysey, second), November 3, 1926.

High Wycombe : as executed (C. Cowles-Voysey, consulting architect), November 30, 1932.

Peterborough : competition (E. Berry Webber, winner), March 21, 1928.

Southampton : competition (E. Berry Webber, winner), September 19, 1928.

Southwark : competition (C. Cowles-Voysey, winner), November 9, 1932.

Swansea : competition (Ivor Jones and Percy Thomas, winners), February 26, 1930.

Walthamstow : competition (P. D. Hepworth, winner ; C. Cowles-Voysey, second), April 27, 1932.

Wimbledon : competition (Bradshaw, Gass and Hope, winners), January 18, 1928.

Worthing : competition (C. Cowles-Voysey, winner), August 6, 1930.

[" *Iodos* " *will continue his review of the above competition in our next issue, which will also contain photographs and plans of Worthing Town Hall, to be opened on Monday next, May 22.*—ED., *A.J.*]

SOUTHWARK TOWN HALL

The scheme to erect a new Town Hall and Central Library in Walworth Road, Southwark, the outcome of a limited competition, has been postponed indefinitely. Modified proposals are now suggested.

Two years ago (states the *South London Press*) a proposal to scrap the existing buildings was postponed until April. Conferences have since taken place and it has been found that local public opinion is against a large expenditure on the project.

The special Town Hall Improvements Committee has resumed consideration of the scheme and has paid attention to the possibility of carrying out part of the original proposal. The Chairman of the Committee explained the new suggestions at a meeting of the Borough Council on Wednesday last.

The Town Clerk, he said, had been directed to inquire of both the architect (C. Cowles-Voysey), whose design for a new Town Hall was placed first by the Assessor, and the architects whose scheme was more favourably received by the Council, whether they were prepared to give their views on the proposed partial development.

It had been made clear that the committee had no authority to offer them any reward for their advice.

" Our sole object is to secure further information upon which we may report to the Council," said the Chairman. The report was received without comment.

Competitions Open

May 30.—Sending-in Day. Royal Society of Arts Competitions for Industrial Designs. The Secretary of the Society, John Street, Adelphi, W.C.

May 31.—Sending-in Day. Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.

June 3.—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums : £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

September 21.—Proposed Town Hall for the Borough of Hornsey. See page 648.

No Date.—Proposed Town Hall for the Portstewart U.D.C., Co. Londonderry. Open to architects practising in Northern Ireland. Assessor : R. H. Gibson, F.R.I.B.A., President of the Royal Society of Ulster Architects. Premium 50 guineas. Conditions of the competition may be obtained on application to Mr. F. Martin, Town Clerk, Portstewart. Deposit £1 1s.

THIS ARSHETECTURE

(*With acknowledgments to the* Week-end Review)

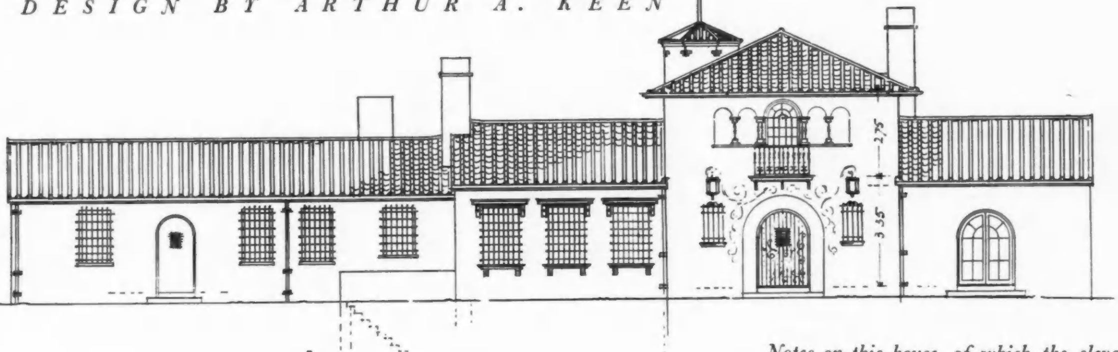
Mr. J. W. Green, City Surveyor of Durham, granted honorarium of £150, for work in connection with the new baths. Councillor J. W. Pattinson (deputy Mayor and Chairman of Baths Committee) stated that the actual saving to the council, so far as architect's fees were concerned, was £1,890. *This particular work was of a specialist type and had been done by the C.S. outside office hours.*—

THE NATIONAL BUILDER

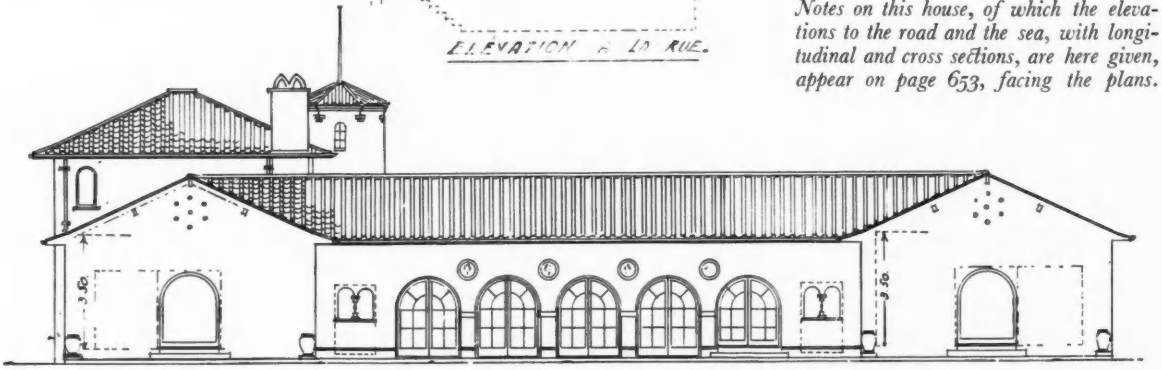
THE SPANISH MISSION IDIOM

A DESIGN BY ARTHUR A. KEEN

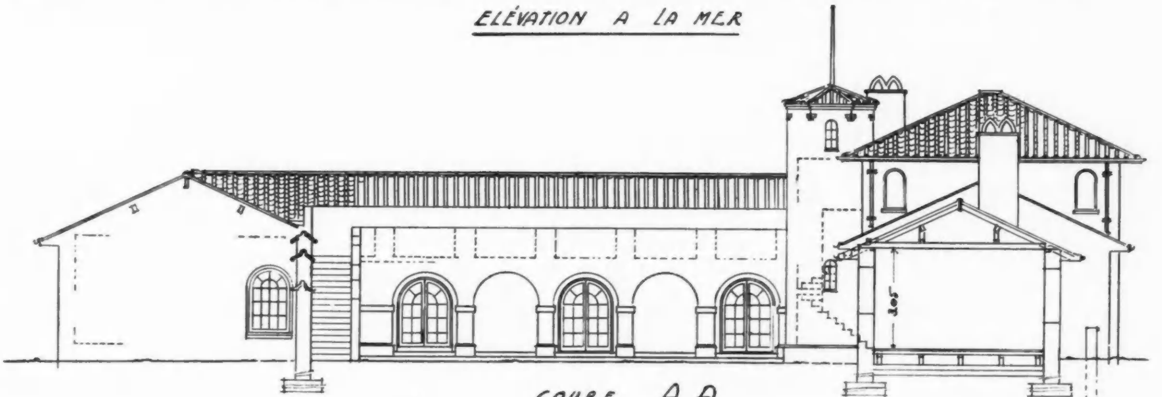
Notes on this house, of which the elevations to the road and the sea, with longitudinal and cross sections, are here given, appear on page 653, facing the plans.



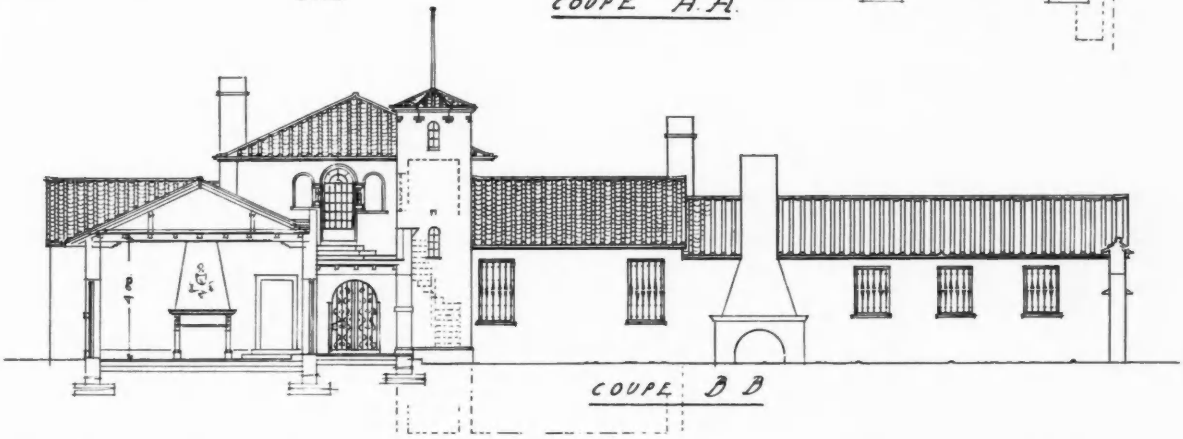
ELEVATION A LA RUE.



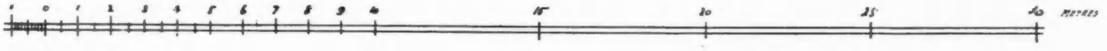
ELÉVATION A LA MER



COUPE A.A



COUPE B B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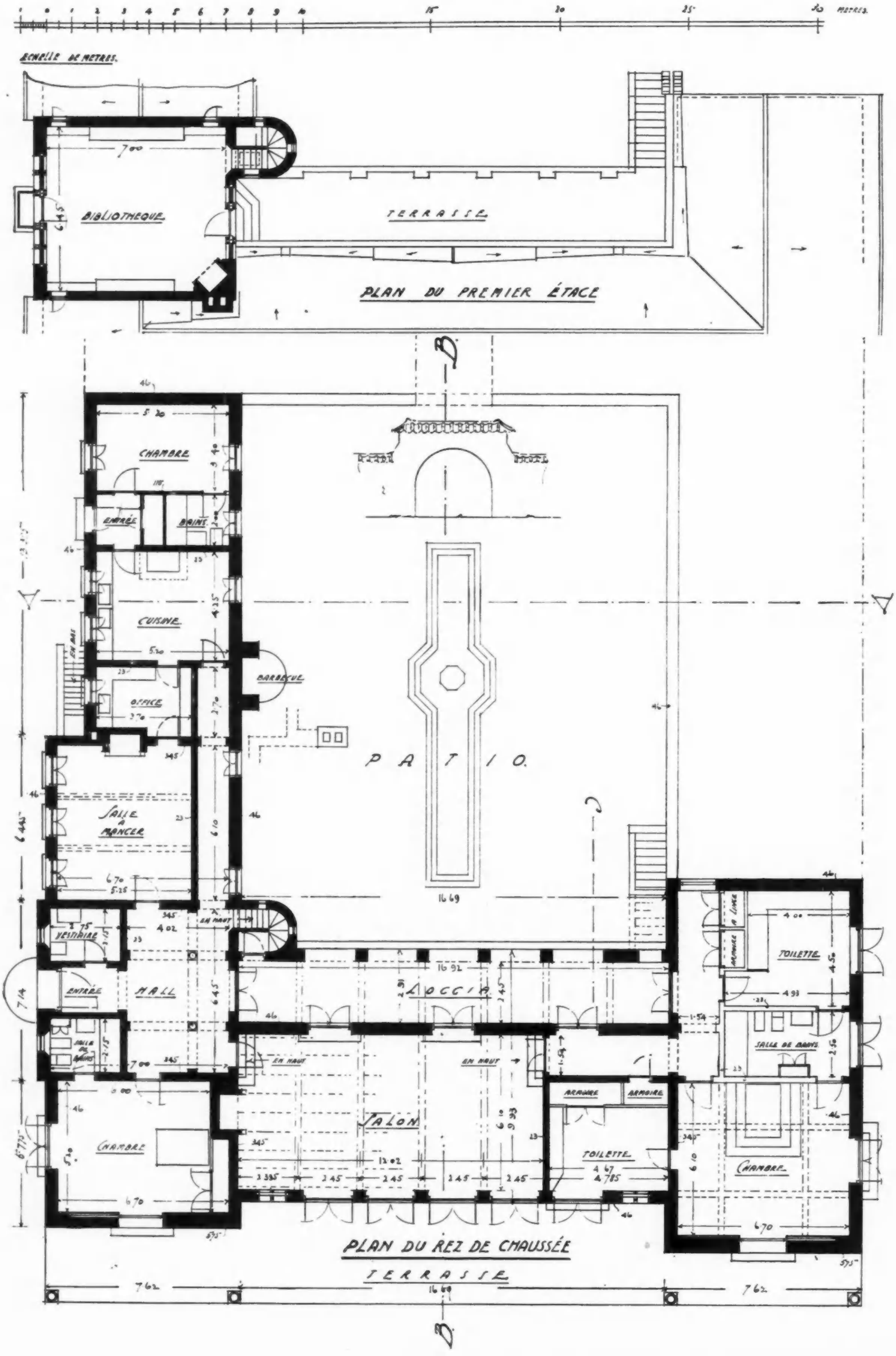
ECHELLE DE METRES.

THE SPANISH MISSION IDIOM: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TERRASSE
PLAN DU PREMIER ÉTAGE
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SALLE DE BAINS
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TOILETTE
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ARMOIRE A LINGE
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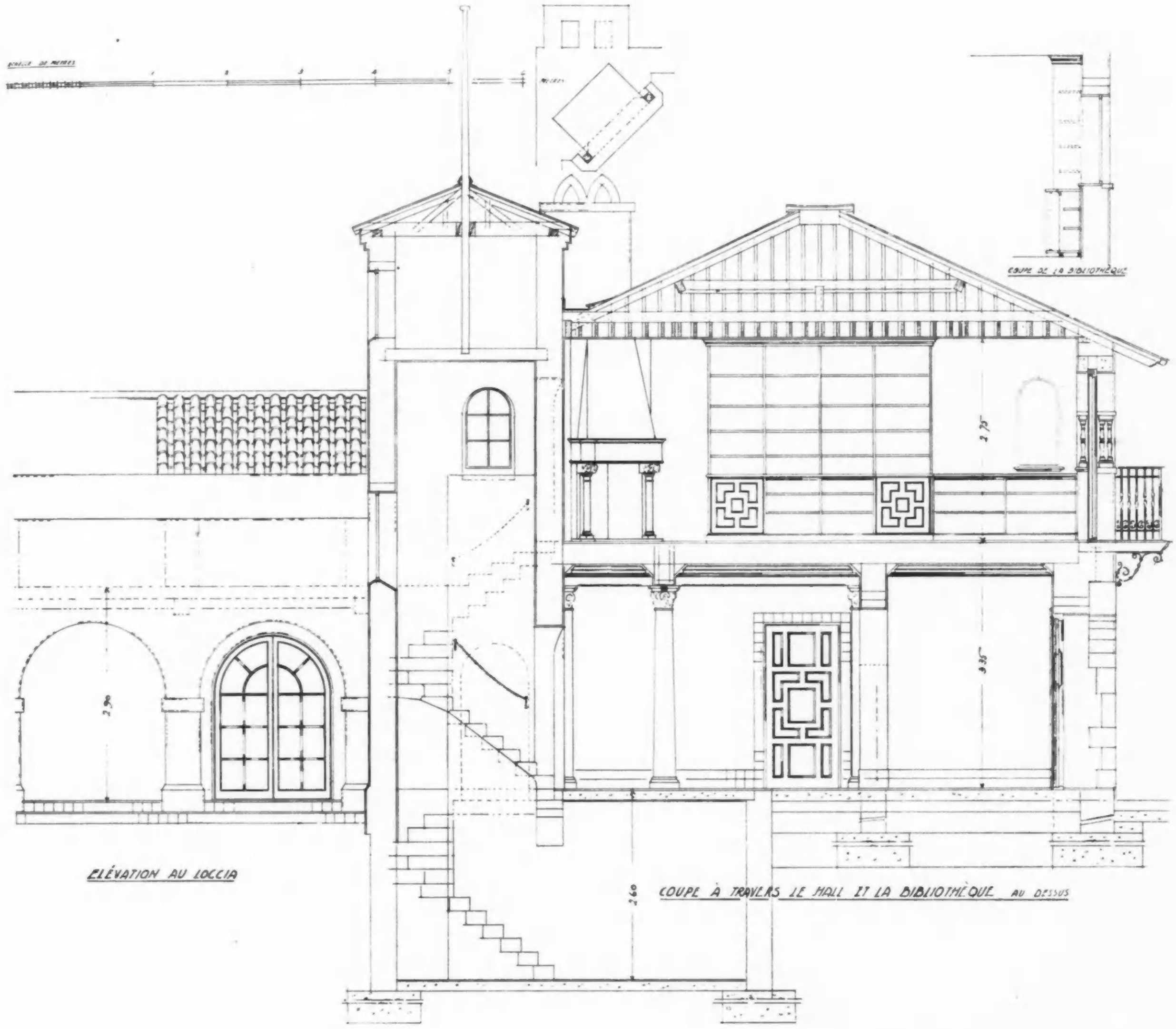
SALLE DE BAINS
CHAMBRE
PLAN DU REZ DE CHAUSSÉE
TERRASSE
B

A DESIGN BY ARTHUR A. KEEN



This house, for an estate of over 300 acres, including a private racecourse and polo field, near Mandelieu, Alpes-Maritimes, France, was expressly designed, by the owner's wishes, in the old Spanish mission type of architecture common in certain districts of California. Stone for the rubble walls was found on the site, and these were finished, externally and internally, with white cement, with specially selected sand for colour. A very rough, but not fantastic, finish to the plaster was enjoined to aid the casting of shadows by their uneven surfaces. For the roofs, deeply eaved, again to cast shadows, Spanish tiles of a warm colour were chosen.

All the rooms are on one floor except the library, which has a door opening on to a roof terrace. Every bedroom has its own bath and dressing-room, and the two bedroom windows opening on to the terrace each has one large pane, not to obstruct the view, and slide into the thickness of the wall, while fine-mesh fly-screens can be slid into their places. The two Moorish windows overlooking the terrace also slide, this time downwards, into the wall. The front door is designed in oak slabs, fixed vertically on the outer face and horizontally on the inner face, set in an architrave of red local stone. In the patio, paved with large rough stone slabs, is a barbecue for the roasting of whole hogs. The builders' estimate for the work shown was about £4,000.

British Steelwork Association

A deputation of members of the British Steelwork Association and others interested in bridge-building was introduced to the Minister of Transport last week by Mr. C. U. Peat, M.P.

Their memorandum stated that "money spent on bridge building as opposed to pure 'amenity' development, would satisfy any criterion of economic benefit and would be immediately reflected in a large number of skilled trades with considerable relief to national and local funds in the way of unemployment relief." The Minister of Transport said that he was now in a position to assist certain approved schemes.

While due weight would be attached to their employment value the Department's duty was to regard all schemes from the standpoint of traffic value.

LETTERS FROM READERS

LAY-READER
SURVEYOR
SUBURBAN
R. P. VERREY
GEOFFREY L. PRICE, A.R.I.B.A.
R. GARDNER MEDWIN

The Poor Architect

SIR,—It is with pleasure I read Astragal's brighter notes for architects every week. I am not a member of the architectural profession, but unluckily for me, a member of my household is; thus, in these days of economic stress, it is impossible for me to obtain any more frivolous or expensive periodicals. My reading is therefore confined to the somewhat gloomy architectural press. However, I am writing to point out that I find great joy in Astragal's notes and criticisms.

I am constantly meeting architects, and I do feel very sorry for them. In fact they arouse great pathos, as their hopes are more blighted than those of any other professionals. Their skill, in my opinion, is very seldom recognized, and by all clients they are *very* grudgingly employed.

The architect is a nice man—but the general public thinks he is a villain.

I suggest a remedy :

The architects are showing courage—rather late in the day—in forming themselves into a protected body. This alone will not cut much ice with the uneducated general public, for I have met people, capable of buying a £1,000 house, who do not even know how to pronounce the designation—and have been told—" No ! Of course we couldn't possibly afford an arshetekt ! "

Well, why do not the R.I.B.A.'s have a competition, not among themselves, but for the benefit of the public ?

I suggest that the A.R.I.B.A.'s should produce 12 sheets of drawings and plans of, say, a £1,000 house, with the slogan *a £1,000 house for 6d.* Judge them in the correct order !

The designs should be the work of competent architects and each should be accompanied by a brief specification giving the materials used, so that the public are induced to take an interest and become knowledgeable about bricks and tiles, etc. Also, a given sum should be set aside for purchase of a site.

I do not quite know how these competitions are run, but I think the procedure is fairly simple.

To induce people to enter would not be difficult, if the competition were on sale at such an exhibition as *The Ideal Homes*, or every architect were given the sale of copies.

Perhaps a competition on the lines suggested above is not feasible. But, in my opinion, it would be of value in bringing the architect to the fore and introducing him as a necessary adjunct to the house - buying or building purchaser.

My personal opinion is that the new R.I.B.A. building will look like a huge and stately sarcophagus and should have the letters R.I.P.-A. over the door.

May this not come true ! England is a fair country, marred by vulgarity, and I should hate to live in it if I had to attend the funeral of the whole architectural profession—which, unfortunately, does at the moment seem almost possible.

LAY-READER

[*Astragal writes :* I suspect that this letter is the work of a lady. Anyhow, a reader who isn't an architect but who finds my notes bright has my sincere sympathy. I return the compliment by saying that her suggestions for architectural competitions are in my opinion brilliant, and shall be placed before all the editors of daily papers I can command. As for the new R.I.B.A. building, its architect has a noble and patient nature, but let critics beware ! There are times when even a Wornum will tornum.]

What Is To Be Done About This?

SIR,—The letter signed " Practical Politician " is as ill-advised as the writer is ill-informed, and is calculated to do an infinite amount of harm, not to the building societies, who are well capable of looking after themselves, or to the speculative builder, who is fulfilling a practical requirement, but to the architect, whose cause he apparently desires to further.

Your correspondent is so confused and contradictory in his statements that it is a little difficult to know quite where to start, but I presume, with your permission, to deal with him point by point.

He begins by saying : *We have on the one hand the financial octopus of the building societies, who have developed from quite good and proper thrift societies into huge financial usury agencies.* The building society rates have always been a shade higher than those obtainable in the open market, for the reason that anybody who goes to a building society is protected for a long term : in other words, the mortgage cannot be called in unless it is paid off, and for this protection he pays a little more than if he went to a bank or a solicitor. Is that what " Practical Politician " means by usury ?

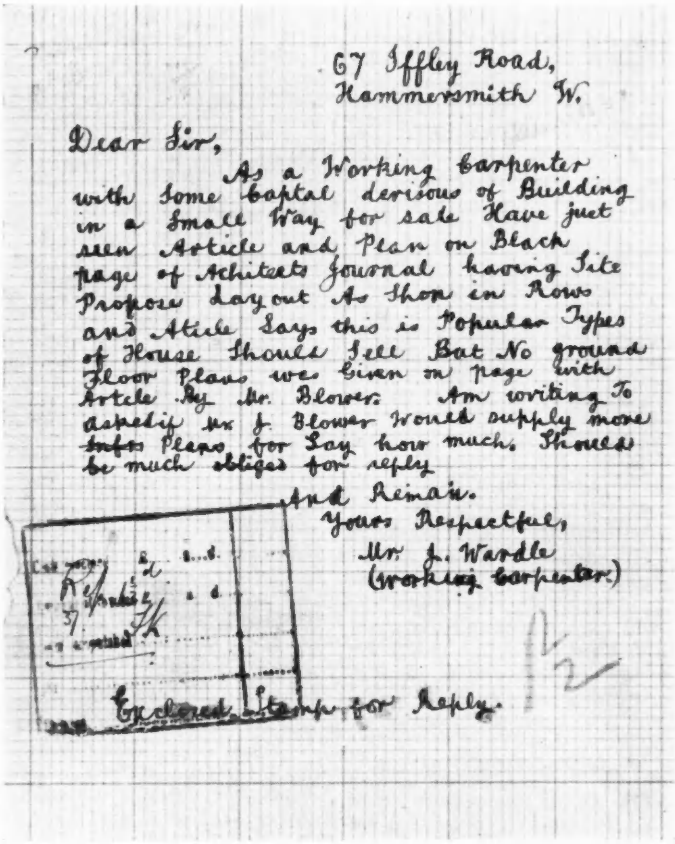
Again, the relative rates are the same now as they have always been, therefore what is it that has made them develop from " good and proper thrift societies " into " huge financial usury agencies "—except possibly their success !

He goes on to say that *they have decided for very obvious reasons to throw in their lot with the speculative builder, the person which the history of housing (through our industrial period) shows to have been, in effect, our greatest social bane, and the producer of our most costly social ill—slums :* but surely some of the worst slums are the best buildings, as far as both structure and architecture goes. To quote two instances : There was the Royal Mile at Edinburgh, consisting of some of the most splendid houses of the old nobility, which for years was the plague spot in Edinburgh ; and are not some of the worst slums in London beautiful old Georgian buildings ?

Is not the worst form of slum the building that is not adapted to its purpose ? If " Practical Politician " means the pre-bye-law type of house, then I am prepared to agree with him that some of these have developed into very bad slums, but was not this rather a result of the social condition of the times than the particular vice of the speculative builder ? Does " Practical Politician " condemn, in his sweeping assertion of speculative builders who are responsible for slums, such people as the late Mr. Willett and the late Mr. Hart of Hampstead, who have produced some excellently-designed and well-built houses ? Does not " Practical Politician " require to be a little more clear in his definitions ? Is not he confusing building society practice, as it was and has been since the war, with what he imagines it will be under the Housing Bill ?

It is a little difficult to follow what it is he exactly objects to on the part of the speculative builder. If it is the kind of construction, surely there are the bye-laws and the building inspectors of the local authorities ! If it is simply a question of æsthetics, why should the building societies demand a higher standard of æsthetics than the local authorities, who are the proper guardians of the public weal ?

Nevertheless, when he comes to æsthetics, I think he is on sounder ground and I am inclined to agree with him. Undoubtedly many of the speculative builders' houses are of a deplorably low standard of taste, but is not this the standard of taste of their purchasers ? " Practical Politician " says that *if, for example, in truth and effect, the*



67 Iffley Road,
Hammersmith W.

Dear Sir,

As a Working Carpenter with Some Captal derisous of Building in a Small Way for sale Have just seen Article and Plan on Black page of Achitects Journal having Site Propose Layout As Shon in Rows and Aticle Says this is Popular Types of House Shoule Sell But No ground Floor Plans wes Given on page with Artcle By Mr. Blower. Am writing To ask if Mr J. Blower Would supply more ~~Infos~~ Plans for Say how much. Should be much obliged for reply

And Remain.
Yours Respectful,
Mr. J. Wardle
(working Carpenter)

Enclosed Stamp for Reply.

architecturally-built house has marketable and social advantages over the speculatively-planned house, then the Architectural Building Society (sic!) *should be in a position to grant considerably more by way of mortgage than could the building societies dependent upon the more promiscuous market of the speculative house.* But is not that a very big "if"? Where there is a public demanding an architect-built house, as, for instance, in Hampstead Garden Suburb, and in Welwyn, or in any of the better-class residential areas, then any of the building societies who did not take architectural character into consideration would be very foolish, and certainly the more reputable building societies would take the architectural character into consideration; but can they, where there is no demand for such a house, insist that this is the only type of house that they will lend money on? Have the directors of any building society any mandate from their subscribers to make adventurous essays in æsthetics; and if they did, would not they have a very short shift?

I have been up to now referring to the ordinary building society practice, in which advances have been made to speculative builders to provide middle-class houses. If "Practical Politician" is talking about working-class houses, then I suggest that very few working-class houses have been built by the speculative builder since the war—in fact, was not this the whole gravamen of Sir Raymond Unwin's argument, that houses for the working classes have not been provided in anything like sufficient quantities by any agency?

I think that "Practical Politician" is on much safer ground when he attacks the situation created by the present Housing Bill. Here it is true that the building societies approached the Government with an offer to help them: i.e., the Government to provide finance for working-class houses to let.

Without going into the merits of whether an organization such as a building society, which has been formed and grown to prosperity through its main purpose of financing the man who wishes to purchase his own house, can be successfully used for an entirely different purpose, I do agree that if the building societies and the Government, together with the local council and the speculative builder, are to provide houses for working classes to rent, the building societies cannot escape the implication that they have a responsibility to the community for the houses so provided, the case, as I see it, being entirely different to that of the middle-class man, who is a free agent and who could certainly have an architect-designed house provided by the speculative builder, if he demanded it. The remedy is in his own hands, and it is not for the building society, or any other agency, to dictate to him. But the working-class man has no choice, and, moreover, the scheme is being launched under the ægis of the Government and the local authorities, so that people can point and say, "This is the class of houses the Government guarantees": "This is the sort of building the Government pleads for: and "This is the sort of architecture the Government blesses."

Here I am heart and soul with "Practical Politician"; but here, surely, the remedy is obvious, and is outlined in number two of his proposals.

SURVEYOR

Competition for Small Houses

SIR,—It is probably not overstating the case to say that the whole architectural profession deplores, and has for years past derided the multitudes of mean little houses which arise yearly in the neighbourhood of every live town. The amount of useful help which the profession has offered to the improvement of standards within the legitimate requirements of intending house owners is, however, negligible. The leaders of the profession no doubt move in a rarified atmosphere where the existence of the needs which are now only adequately met by the speculative builder can be ignored, while at the other end of the scale the enthusiastic aspirant nourishes his spirit on visions of new legislative buildings for the Republic of Eldorado and similar heartening subjects. Meanwhile the horrid work goes on, and seems likely to go on.

I suggest that you, Sir, should initiate an open competition for the design of houses for people of humble means who are not "cottagers," incorporating in the conditions the following requirements, which are those usually met with in suburbia:—

Site (in 40 ft. road, building line 20 ft. back), a plot of 30 ft. frontage with adequate depth upon which must stand the house, leaving space for a garage and for access to back gardens with a wheelbarrow.

Accommodation.—Two reception rooms, say, 13 ft. by 10 ft., with bow windows, and 14 ft. by 11 ft. Kitchenette about 8 ft. sq., containing coke boiler, gas cooker, sink, dresser, with side or back entrance.

Hall, with stairs, larder, fuel store, etc.

Three bedrooms, the smallest not under 65 sq. ft. Bath, linen closet, and separate w.c.

Special requirements.—All rooms to have flat ceilings at a height not less than 8 ft. All windows to have plain sheets of glass in their lower portions up to eye height.

Big bow windows (additional to given dimensions of rooms) should be provided in front room and bedroom over.

These are the conditions (usually quite inflexible) with which designers of such houses have to cope. Though they contain nothing contrary to common-sense or legitimate desire, they constitute what appears to be æsthetically a wearily insoluble problem, and the man (whether student or leader) who produces a solution which may be acceptable to the intending builder will have made an offering entitling him to the congratulations of the architectural profession and the goodwill of all lovers of England.

SUBURBAN

Suburban Housing

SIR,—Congratulations on your Information Sheets, and especially on the one by Mr. John J. Blower in the May 3 issue. Land developers like me, who are trying to further housing as pressed by by the Ministry of Health, have to put up with a good deal of criticism. Instead of obstructing progress it would be better if all papers like yourself would try to help builders by telling us what to do.

When you have completed the series you should have them bound up for builders, and so further good design, which is just what we want.

R. P. VERREY

Registration

SIR,—With regard to the question of Architects' Registration, I have been wondering why it should not be possible for the R.I.B.A. to register its own members who are eligible *en bloc*. As it is, each member has to fill up forms, and tear his final Certificate from its honoured frame, tie up with red tape and pack them off to London. Surely the Institute knows that an Associate is an Associate without each individual member having to prove it to them. One would think that with such an apparently overpowering representation on the Registration Council, the R.I.B.A. would be able to do the necessary for its members whom they know to be qualified.

GEOFFREY L. PRICE

A Novel Water Softener

SIR,—In a recent issue Mr. Harold Dod enquired about an unconventional water-softening device known as a "Scale Buoy."

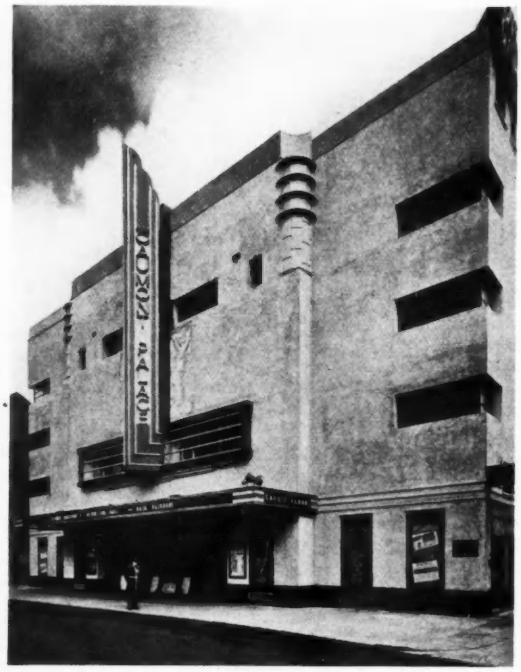
The floating flask he described contains, as well as mercury, an invisible gas. The slightest vibration of the water in the storage tank causes a faint glow to emanate from the flask, and this glow has the power of penetrating the water, causing particles of lime to disintegrate and settle at the bottom of the tank in the form of a soft sludge which can easily be removed every few months.

I know of about twenty houses in North Wales and the Wirral in which this ingenious device has been tested. It has proved thoroughly efficient in all but one, where, owing to perpetual baby-washing, the water apparently flowed too rapidly through the unusually small tank to allow time for the mysterious glow to work its magic.

I do not know the name of the makers, but can put anyone interested in touch with an agent.

R. GARDNER MEDWIN

THE GAUMONT PALACE,



This modern picture palace, with all its apparatus of pleasure, stands where had stood, for 84 years, the Congregational church known as Highbury Chapel, in Winchcombe Street, Cheltenham. The structure is steel-framed and fire-resisting throughout, includes a fully-equipped stage and provides seats for 1,009 on the ground floor and 762 in the balcony (1,771 in all).

In the street front a brightly-coloured sign and canopy are conspicuous features, intended to present a striking appearance after dark. The architect has also given special attention to the design of the interior light fittings, some of which are illustrated on pages 660-1.

In the plans reproduced (all to the same scale) on the following three pages old walls appear in black. Sections appear in the Supplement.

Gas Engineers

The seventieth annual general meeting of the Institution of Gas Engineers will be held at Liverpool from May 30 to June 2 inclusive.

U.S.S.R. Lecture

"Ancient Church Architecture from the White Sea to the Caucasus" is the title of a lecture to be given by Mr. David Roden Buxton at a meeting of the Society for Cultural Relations between the Peoples of the British Commonwealth and the U.S.S.R., to be held at the London School of Hygiene and Tropical Medicine on Thursday, May 25, at 8 p.m. Mr. Buxton will describe little known wooden churches in the North Russian Forests, churches in brick architecture in Central Russia and the Armenian architecture in Transcaucasia.

Royal Society of Arts

The Council of the Royal Society of Arts state that Professor Maiuri is unavoidably detained in Naples, and consequently the lecture on "The Recent Excavations at Herculaneum and Pompeii," which he was to have delivered before the Society today, is indefinitely postponed.

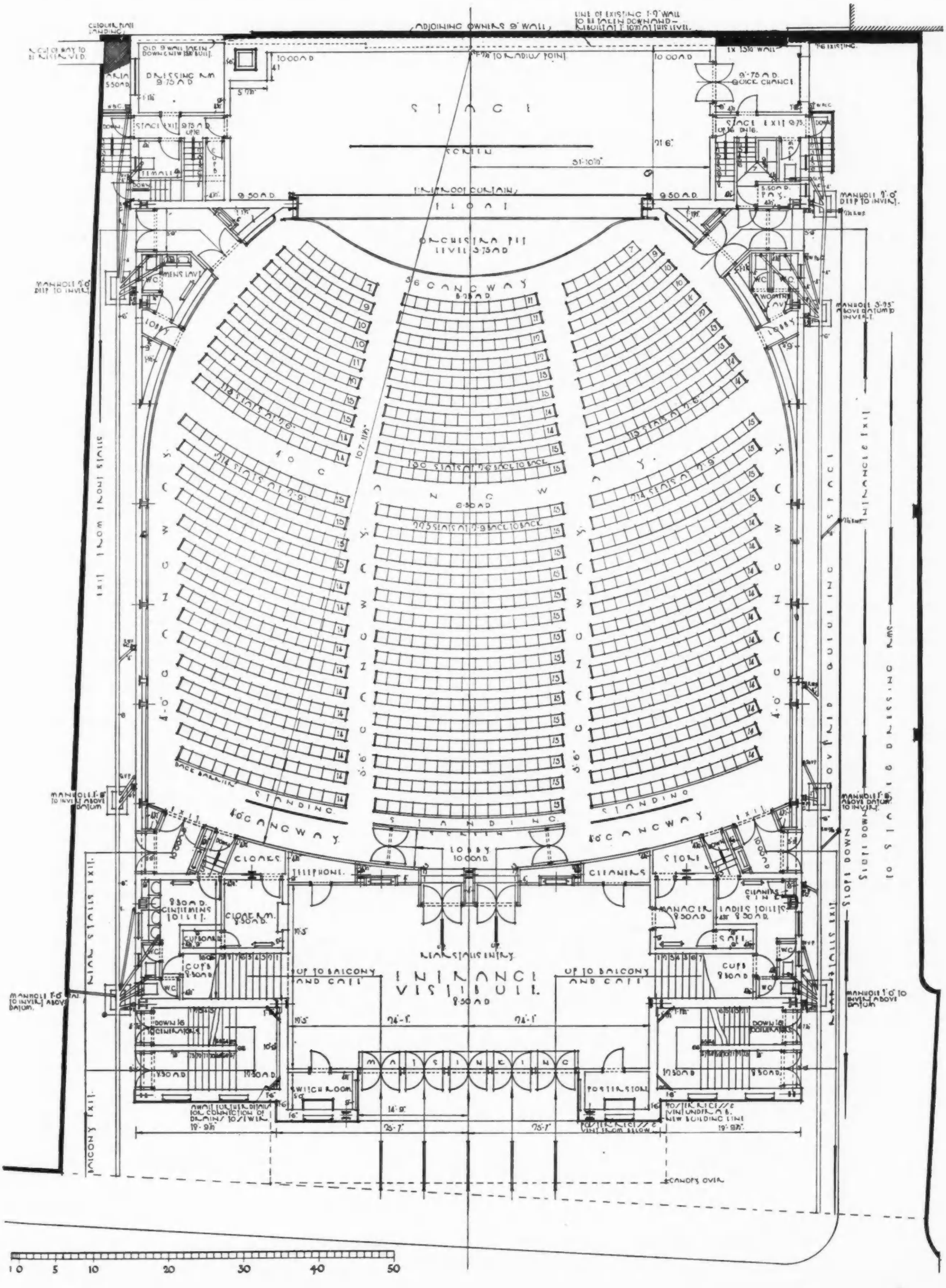
Town Planning in America

"Recent American Town Planning developments and their Bearing on the English Problem under the New Act" is the title of a paper to be read by Mr. C. R. Ashbee, M.A., at a meeting of the Town Planning Institute, to be held at Caxton Hall, Caxton Street, Westminster, S.W., on Friday, May 26, at 6 p.m.

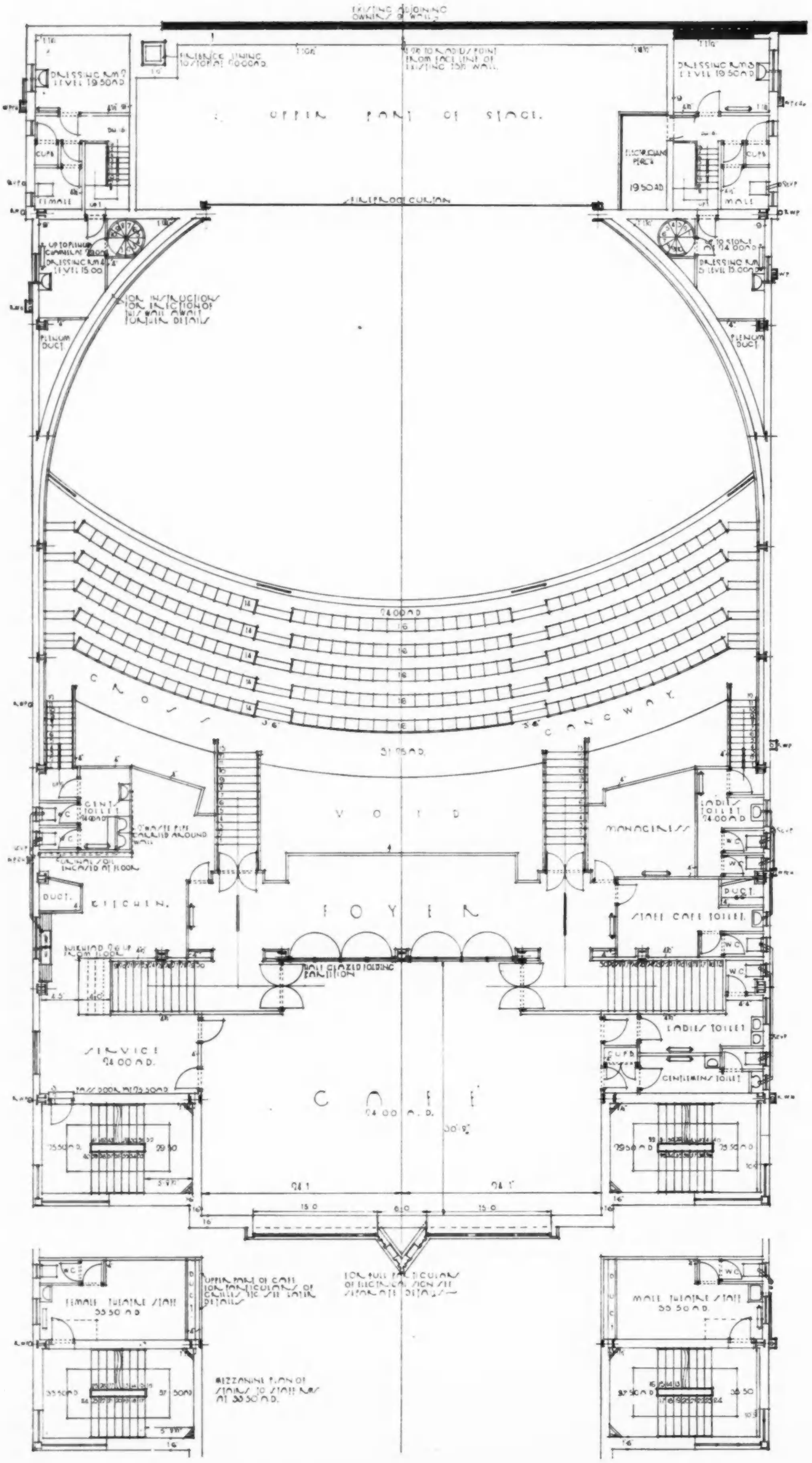
ON THE AIR

On Tuesday next, May 23, the sixth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Messrs. Wells Coates and Geoffrey Boumphrey, who will discuss "dwellings."

CHELTENHAM: BY W. E. TRENT (E. TULLEY, Assistant)

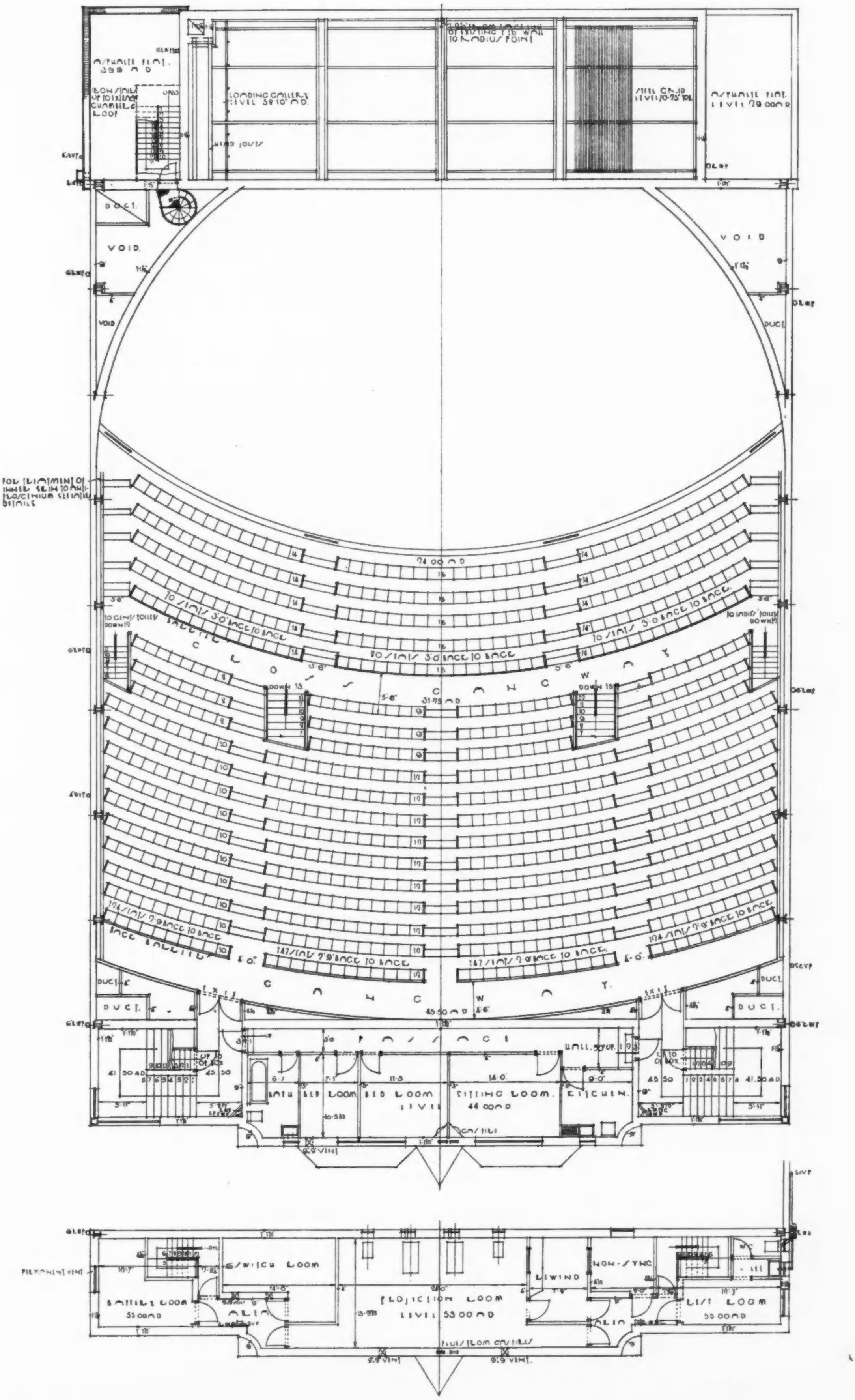

ADJOINING OWNERS 9" WALL
LINE OF EXISTING 1'-9" WALL TO BE TAKEN DOWN AND REBUILT AT 1'-10½" AT THIS LEVEL
CELLULAR FLAT LANDING
RIGHT OF WAY TO BE RESERVED
OLD 9" WALL TAKEN DOWN & NEW 13½" BUILT
AREA 5.50 A.D.
DRESSING RM 9.75 A.D.
10.00 A.D.
TO RADIUS POINT
STAGE
SCREEN
21'6"
31'-10½"
9.50 A.D.
FIREPROOF CURTAIN
FLOAT
STAGE EXIT 9.75 A.D.
FEMALE
DOWN
1X 13½" WALL
1'-6" EXISTING
9'-75 A.D. QUICK CHANGE
STAGE EXIT 9.75
UP 16 DN 16
5.50 A.D. P.A.S.
MANHOLE 2'-0" DEEP TO INVERT
MANHOLE 2'-0" DEEP TO INVERT
ORCHESTRA PIT LEVEL 3.75 A.D.
3'6" GANGWAY 8.25 A.D.
MENS LAV.
W.C.
LOBBY
WOMENS LAV.
LOBBY
MANHOLE 3'-95" ABOVE DATUM TO INVERT
118 SEATS AT 2'6"
113 SEATS AT 2'6"
107'-11½"
4'0" GANGWAY
274 SEATS AT 2'9"
274 SEATS AT 2'9"
130 SEATS AT 2'6" BACK TO BACK
275 SEATS AT 2'9" BACK TO BACK
GANGWAY 8.50 A.D.
3'6" GANGWAY
3'6" GANGWAY
4'-0" GANGWAY
4'-0" GANGWAY
EXIT FROM FRONT STALLS
ENTRANCE EXIT
STAGE
DRESSING RMS
BACK BARRIER
STANDING
STANDING
STANDING
SCREEN
4'0" GANGWAY
4'0" GANGWAY
EXIT
EXIT
LOBBY 10.00 A.D.
MANHOLE 1'-8" TO INVERT ABOVE DATUM
MANHOLE 1'-8" ABOVE DATUM TO INVERT
CLOAKS
TELEPHONE
CLEANERS
STORE
10.00 A.D.
8.50 A.D. GENTLEMENS TOILET
CLOAK RM. 8.50 A.D.
CUPBOARD
CUPS 8.50 A.D.
W.C.
MANAGER 8.50 A.D.
LADIES TOILETS 8.50 A.D.
CLEANERS SINK
SAFE
CUPS 8.50 A.D.
REAR STALLS ENTRY
UP 10 BALCONY AND CAFE
UP 10 BALCONY AND CAFE
ENTRANCE VESTIBULE 8.50 A.D.
MANHOLE 1'-6" TO INVERT ABOVE DATUM
MANHOLE 1'-0" TO INVERT ABOVE DATUM
DOWN 16 TO GENERATORS
DOWN 16 TO GENERATORS
19'-5"
10'-6"
24'-1"
24'-1"
9.50 A.D.
11.50 A.D.
11.50 A.D.
8.50 A.D.
MAIN ENTRANCE
SWITCH ROOM
POSTER STORE
AWAIT FURTHER DETAILS FOR CONNECTION OF DRAINS TO SEWER
14'-9"
25'-7"
25'-7"
19'-9½"
19'-9½"
POSTER RECESSE VENT UNDER A.B. NEW BUILDING LINE
POSTER RECESSE VENT FROM BELOW
CANOPY OVER
REAR STALLS EXIT
BALCONY EXIT
REAR STALLS EXIT
SLOPE DOWN
SLOPE DOWN
TO STAGE DRESSING RMS
1 0 5 10 20 30 40 50

THE GAUMONT PALACE, CHELTENHAM:


UPPER PART OF STAGE
DRESSING RMS 2 LEVEL 19.50 A.D.
DRESSING RMS 3 LEVEL 19.50 A.D.
CUPD
FEMALE
MALE
ELECTRICIANS PERCH
19.50 A.D.
DRESSING RM 4 LEVEL 15.00
DRESSING RM 5 LEVEL 15.00 A.D.
PLENUM DUCT
24.00 A.D.
CROSS GANGWAY
31.05 A.D.
VOID
GENTS TOILET 24.00 A.D.
LADIES TOILET 24.00 A.D.
MANAGERESS
KITCHEN
DUCT
FOYER
STAFF CAFE TOILET
W.C.
LADIES TOILET
GENTLEMENS TOILET
CUPD
SERVICE 24.00 A.D.
CAFE
24.00 A.D.
24.1
24.1
15.0
6.0
15.0
FEMALE THEATRE STAFF 33.50 A.D.
MALE THEATRE STAFF 33.50 A.D.
MEZZANINE PLAN OF STAIRS TO STAFF RMS AT 33.50 A.D.
UPPER PART OF CAFE FOR PARTICULARS OF CEILINGS ETC SEE LATER DETAILS
FOR FULL PARTICULARS OF ELECTRICAL SIGNS SEE SEPARATE DETAILS

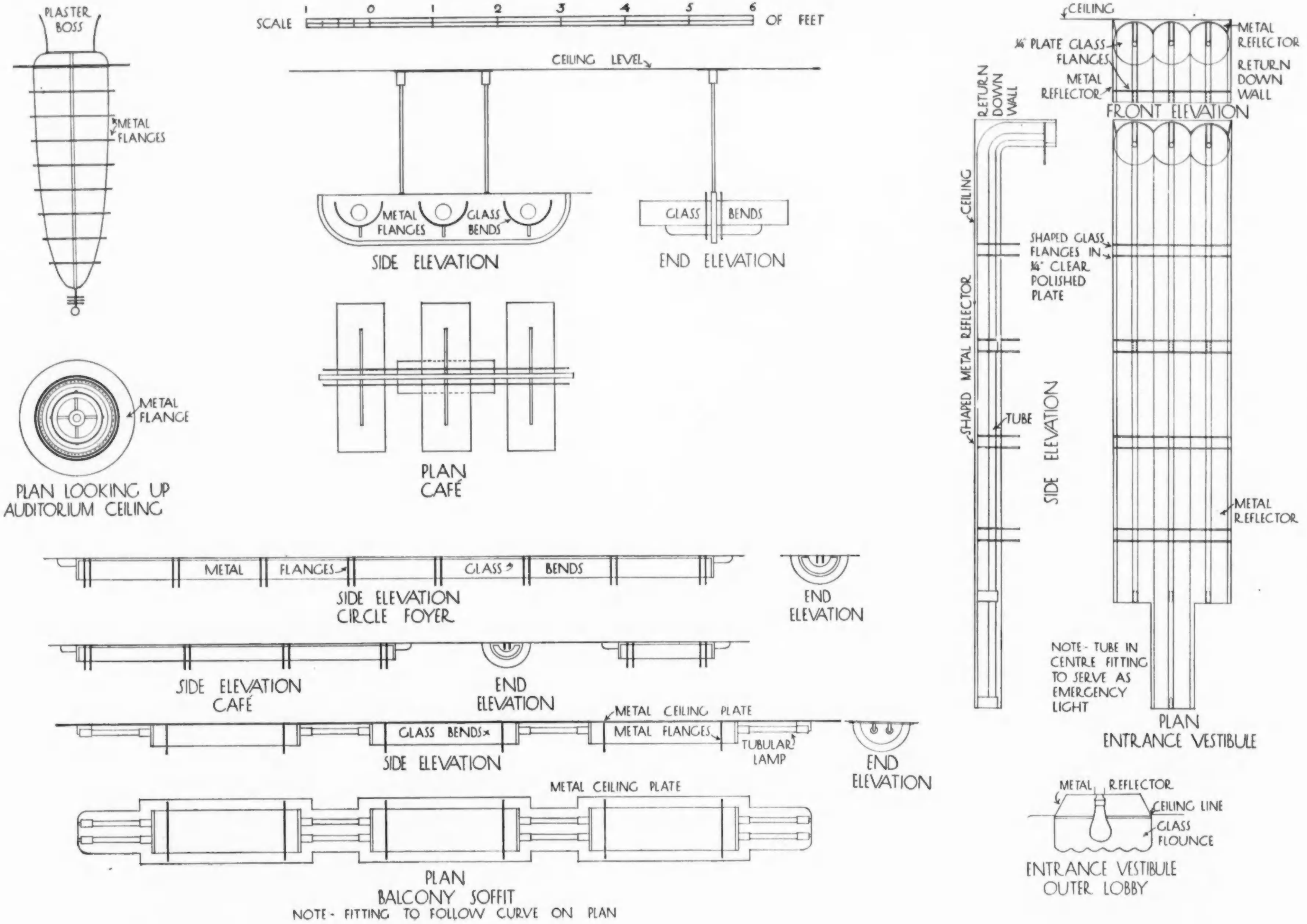
The Mezzanine Plan

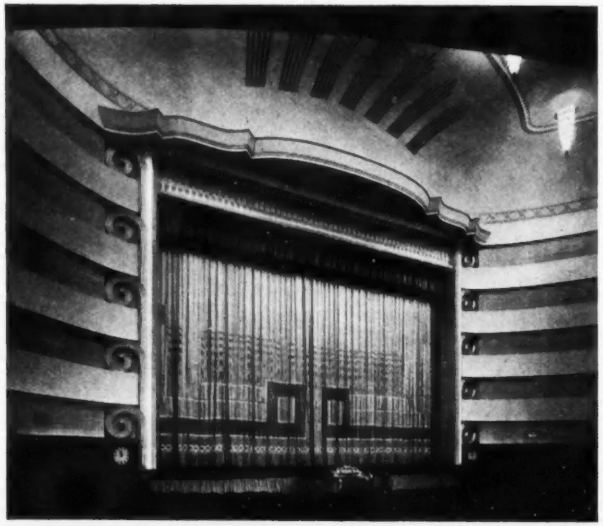
BY W. E. TRENT (E. TULLEY, Assistant)


ASPHALTE FLAT 39.9 A.D.
LOADING GALLERY LEVEL 38.10 A.D.
STEEL GRID LEVEL 70.25 A.D.
ASPHALTE FLAT LEVEL 79.00 A.D.
DUCT.
VOID
CROSS GANGWAY
24.00 A.D.
31.05 A.D.
DOWN 15
10 GENTS TOILETS DOWN 19
10 LADIES TOILETS DOWN 19
PASSAGE
BATH
BED ROOM
SITTING ROOM
KITCHEN
LEVEL 44.00 A.D.
45.50 A.D.
41.50 A.D.
SWITCH ROOM
BATTERY ROOM 53.00 A.D.
PROJECTION ROOM LEVEL 53.00 A.D.
REWIND
NON-SYNC
LIFT ROOM 53.00 A.D.
AREA
W.C.
9.9 VENT.
S.V.P.

The Balcony Plan

GAUMONT PALACE, CHELTENHAM: BY W. E. TRENT (E. TULLEY, Assistant)

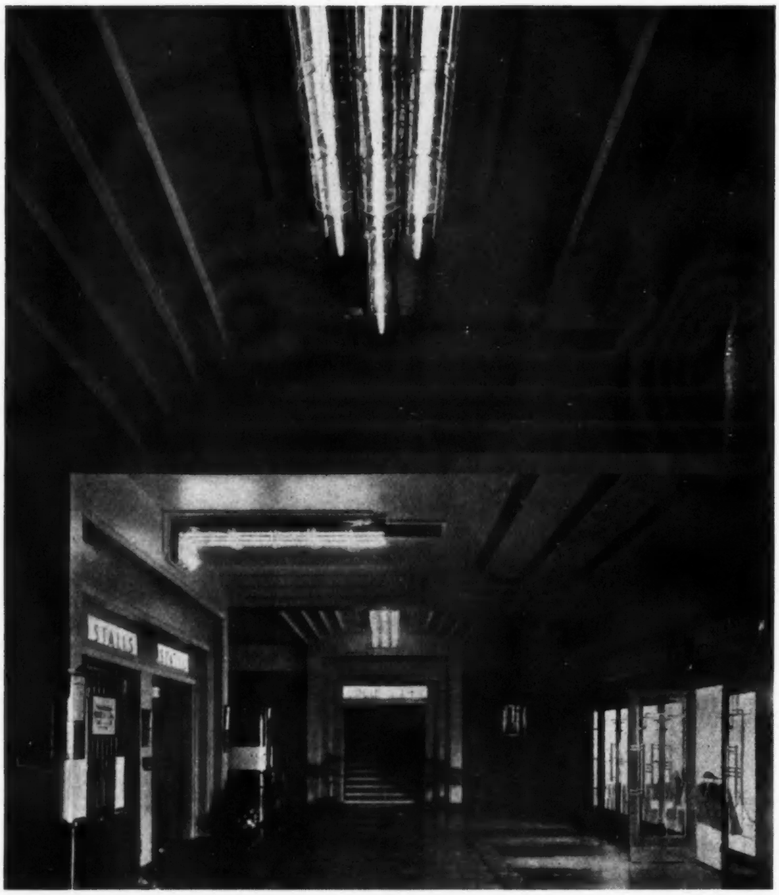

SCALE
1 0 1 2 3 4 5 6 OF FEET
PLASTER BOSS
METAL FLANGES
METAL FLANGE
PLAN LOOKING UP AUDITORIUM CEILING
CEILING LEVEL
METAL FLANGES
GLASS BENDS
SIDE ELEVATION
GLASS BENDS
END ELEVATION
PLAN CAFÉ
METAL FLANGES
GLASS BENDS
SIDE ELEVATION CIRCLE FOYER
END ELEVATION
SIDE ELEVATION CAFÉ
END ELEVATION
METAL CEILING PLATE
GLASS BENDS
METAL FLANGES
TUBULAR LAMP
SIDE ELEVATION
END ELEVATION
METAL CEILING PLATE
PLAN BALCONY SOFFIT
NOTE - FITTING TO FOLLOW CURVE ON PLAN
CEILING
¼" PLATE GLASS FLANGES
METAL REFLECTOR
METAL REFLECTOR
RETURN DOWN WALL
FRONT ELEVATION
RETURN DOWN WALL
CEILING
SHAPED METAL REFLECTOR
TUBE
SIDE ELEVATION
SHAPED GLASS FLANGES IN ¼" CLEAR POLISHED PLATE
METAL REFLECTOR
NOTE - TUBE IN CENTRE FITTING TO SERVE AS EMERGENCY LIGHT
PLAN ENTRANCE VESTIBULE
METAL REFLECTOR
CEILING LINE
GLASS FLOUNCE
ENTRANCE VESTIBULE OUTER LOBBY



The photographs on this page show some of the light fittings of which large-scale drawings appear on the opposite one; others appear elsewhere in this issue. The fittings are of chromium-plated metal, with the edges coloured green and vermilion; the glass everywhere is white flash opal, with the exception of the café, where it is tinted pink. The colour-scheme of the auditorium itself is carried out in shades of warm orange and beige, relieved by bands of pale green touched with silver.

STALLS
STALLS

GAUMONT, CHELTENHAM

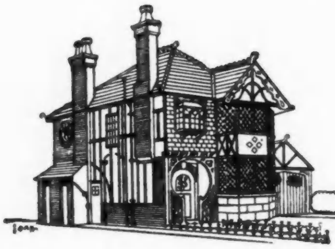


W. E. TRENT, Architect
E. TULLEY, Assistant

The doorways to the stalls, pictured on the preceding page, reappear on the left of the above general view of the entrance vestibule, looking towards one of the staircases to the circle and café, which is reproduced in order to show the variants of the ceiling light fittings. The walls of the vestibule, which contains pay-boxes, telephones, cloakroom and chocolate kiosk, are panelled in walnut.

The lower photograph on this page is of a mirror, with light above, on one of the landings of a circle staircase.

WHAT IS TO BE DONE ABOUT



THIS?

[*The architect does not, as a rule, make use of the Building Societies; in fact, generally speaking, he knows curiously little about them. The article concluded below shows how the small builder uses them. There is every reason why the architect should use them on behalf of his clients. It is hoped that the information now conveyed by an experienced estate developer may help architects, who have had no experience of Building Society procedure, to consider its possible applications in relation to their clients.*

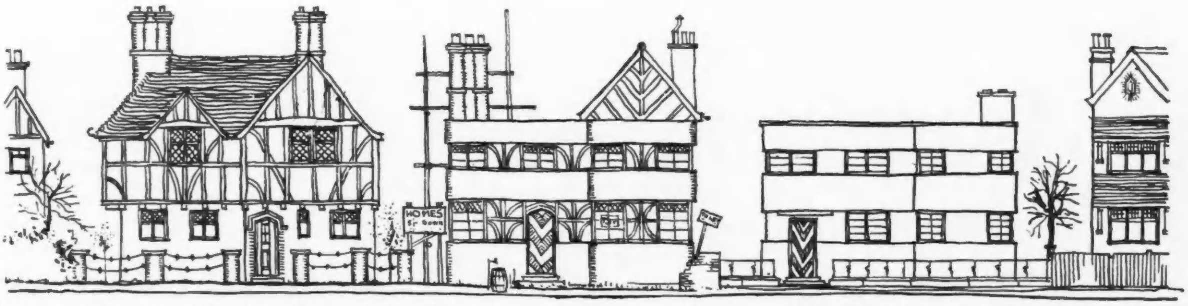
The following have already appeared:—(March 29) 1. The Speculative Builder, by Penates; (April 5) 2. The Speculative Architect, by Edwin Gunn; (April 12) 3. Building Without Guidance, by Stanley C. Ramsey; (April 19) 4. What the Public Want, by Edwin Gunn; (April 26) 5. The Housing Problem, by Percy Morris; (May 3) 6. The Building Centre Competition, by E. Maxwell Fry; (May 10) 7. How the Architect can use the Building Societies, by H. C. Burdett.—ED., *A.J.*]

8. How the Architect can use the Building Societies: ii.

[*By H. C. BURDETT*]

Pool Systems

IT can be arranged for a building society to advance more than 90 per cent. This is done by the builder agreeing to protect the society against loss by the deposit of collateral security. This collateral takes the form of an investment with the society of an amount equal to the excess advanced. This investment bears interest at the rate obtaining for the time being, and need not remain attached after the period of risk has passed. For example, suppose a builder wishes to sell his houses on the basis of a total deposit of £25 out of a purchase price of £600. The normal 80 per cent. loan would be



What we expect to see when a conscientious builder decides to respect " local amenities " by building in keeping with his immediate neighbours—

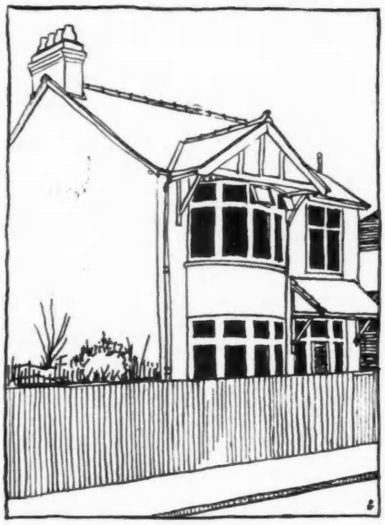
£480. This can be increased to £540 by insuring the excess. The margin of £60 is provided as to £25 from the purchaser and the society will be willing to advance the balance of £35 to the borrower and consolidate this with the mortgage if the builder invests £35 with the society.

This investment is released by the society when the repayments by the purchaser have reduced the loan to normal.

When a number of houses are being sold in this way the collateral investments are " pooled," by which is meant that the " pool " can be attached up to an agreed amount against any specific default. The risk of default can be calculated with reasonable accuracy from past experience, and when the size of the " pool " adequately covers the risk it need not be increased.

Small Speculation : Typical Procedure

Suppose a small builder has a hundred pounds with which to speculate. He finds a suitable site where he believes houses of the type he contemplates will sell readily. Say it costs £3 per foot. He would like to buy enough for twelve houses on 20-ft. frontages: 240 ft. will cost him £720. He should arrange a contract to purchase this parcel, paying 10 per cent. deposit (£72) and providing for him to have possession for building purposes and for the balance of the purchase money to be paid plot by plot as he builds and sells. The time the vendor will allow for this delayed completion will vary with the individual, and the builder must bargain for as long as possible. He can always complete earlier if things go better than anticipated.



—and when he doesn't.

He must now prepare his plans and specifications and submit them to the local authority for approval and to the building society for building finance. The building society will make enquiries as to his stability from his solicitor and from trade references. They will want to survey the site. If everything is satisfactory they will advise him that he has been granted a loan of so much (about 70 per cent. of their surveyor's valuation) to be advanced on certificate as work proceeds on the security of particular plots.

Suppose he proposes to build houses to sell at £500 freehold, and suppose the building society has agreed to advance on four houses at a time. They have offered him the use of a fund of £1,400 as the work proceeds. This will be paid on certificates issued by their surveyors at approximately the following stages :—

House roofed in, 45 per cent., equals £157 10s. per house.

Plaster finish, 25 per cent., equals £87 10s. per house.

Completed, 30 per cent., equals £105 per house.

Now the builder knows what he has to budget for. The selling price of the house is £500, and he should have allowed for £150 gross profit. The site value of the house is £60, of which £54 is owing. Out of the first certificate advance of £157 he has to pay this to free the land, and is left with £100 for his labour and materials. He should have reached this stage in four weeks—if he has been able to arrange a month's credit for his materials he has only had his wages to provide. This sum might be £200 for the four houses and may be too much for him. His bank might assist if they had a call on the building society's certificates. Alternatively, he must proceed more slowly or get sub-contractors to take over the trades and wait for the payments.

EASY TERMS
PLANS APPROVED

LAW REPORTS

DAMAGES FOR BREACH OF COVENANT

Dickinson v. Brocklesby.—King's Bench Division. Before Mr. Justice Roche

THIS was an action by Mr. J. A. Dickinson, of Cromwell Road, South Kensington, S.W., to recover the sum of £42 odd from Mr. J. S. Brocklesby, being rent and charges alleged to be due in respect of a flat at Cromwell Road. As judgment had been refused for the amount claimed, the matter now came before the Court on a counter-claim set up by the defendant against the plaintiff for damages for alleged breach of covenant.

Mr. Bathurst, for Mr. Brocklesby, said his client held the flat with a lease which ran from January, 1931, and his case was that his landlord had failed to carry out his covenants to keep the flat in good repair. The roof was found to be defective and his client had also to complain that damp had penetrated a bedroom wall near the window sill. There was also a lack of electric lighting on the stairs and a stair broken. The rain had penetrated the roof, with the result that his client had had to remove his furniture. He could not sub-let the flat for a long period.

Defendant gave evidence in support of his counter-claim.

Cross-examined, defendant took the view that the flat was uninhabitable when he vacated it. He did not agree that the broken stair was repaired within a week.

Evidence was given for the defendant,

that he placed the flat in the hands of estate agents to let furnished and that they had shown it to many clients, but all had refused to take it because there were signs of damp on the ceiling. It became noticeable in the roof.

Mr. Morle, for the plaintiff, said his client repaired the stair a few days after complaint, and attended to the roof as soon as he could get into defendant's flat, as it was the only way to get access to the roof. The trouble with the roof was due to someone going on to the roof to fix a wireless aerial.

Plaintiff stated that he repaired the stair a few days after the complaint.

His lordship observed that repairs of this kind needed doing in the first five minutes, not the first few days.

Plaintiff explained that the switching off of electric light was only while repairs were being done.

His lordship, after hearing the evidence, said he came to the conclusion that if the plaintiff had wanted to get into the defendant's flat to do repairs he could have done it long before he did. In his opinion the plaintiff treated the matter of the broken stair far too lightly. He had had ample evidence to show that for about a fortnight the condition of the stair gave the defendant a great deal of anxiety. With regard to the roof his view was that it ought to have been repaired long before it was. In the circumstances, he gave judgment for defendant, in the counter-claim, and awarded him £50 damages with costs.

ANCIENT LIGHTS

Robertson v. Shears.—Chancery Division. Before Mr. Justice Bennett

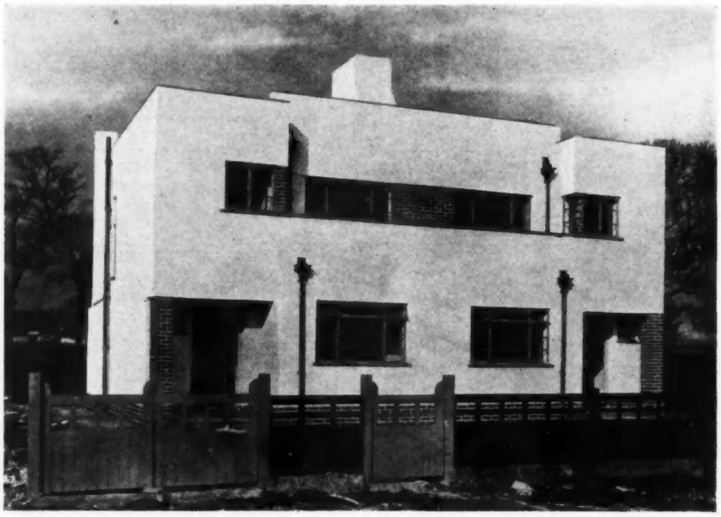
THIS case related to obstruction of light to a scullery about 8 ft. by 10 ft. forming the ground floor of a back addition of one of a row of terrace houses, No. 17 New King's Road, Fulham, by the raising and extension of the back addition of the adjoining house. The scullery had been converted into a kitchen and the original kitchen utilized as an additional living room. The property was controlled. Evidence was given as to the disposition of adequate and inadequate light in the room before and after the obstruction, and as to the impossibility of detecting defects, dirt, etc. on various articles of food outside the restricted area of adequate light close to the window.

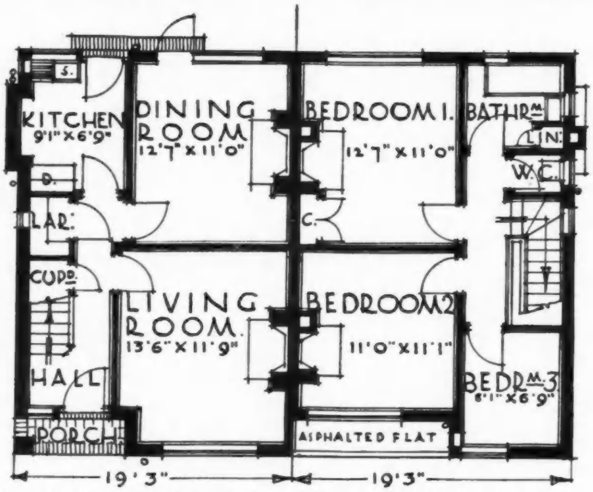
The obstruction being completed before action was brought, damages only were claimed. Damages were claimed on the whole house, on the ground that adequate light in the kitchen governed the rental value and lettability of the house even though other rooms remained well lit.

The defence was based on the contention that town kitchens were necessarily dark, that the room was too small to be material, and that, the property being controlled, damage to rental was negligible.

Mr. Vaisey, K.C. appeared for the plaintiff and Mr. Cleveland-Stevens, K.C. for the defendant. Evidence was given for the plaintiff by Mr. P. J. Waldram, F.S.I. and Mr. Culliford, F.R.I.B.A. and by Mr. Doddington, F.R.I.B.A., for the defendants. The learned Judge held that the alleged nuisance affecting the value of the reversion to the property as a whole had been proved, rejecting the contention that dark kitchens were customary in town houses and expressing the opinion that if the action had been brought in time the plaintiff would have had little or no difficulty in obtaining an injunction. He assessed the damages at £150. An application to disallow the costs of expert witnesses was refused.

HOUSES AT KENTON





½ GROUND FLOOR PLAN ½ FIRST FLOOR PLAN.

DESIGNED BY WALKER AND WESTENDARP

This pair of houses at Kenton, Middlesex, represents an attempt on the part of a firm of estate developers to provide a seemly and up-to-date dwelling for the man with less than £1,000 to spend. Each house is intended to be sold at £850, or 24s. 6d. weekly, including land and space for garage. The actual frontage of each plot is 24 ft. It was stipulated that the planning, accommodation and equipment should be exactly similar to their normal type of house selling at the same price, any saving caused by the omission of external excrescences to be used in obtaining a better finish. Thus no alteration was made in the plans except that the bay windows have been shorn off and the rooms slightly enlarged.

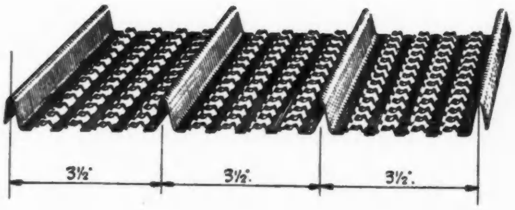
The construction is of 9 ins. brick walls, rendered externally in white cement concrete, with a certain amount of facing bricks, and wooden floors. The flat roof, however, is of patent reinforced hollow blocks, covered with two layers of asphalt. Sills, external and internal, are of black quarry tiles, and a course of similar tiles is set on top of parapet walls. The windows are standard metal frames built direct into the brickwork, but with vertical bars omitted; they are painted bright green. The kitchens are fitted with a gas cooker, small heating boiler and built-in dresser.

Battle Abbey

Battle Abbey is to be reopened on May 27. Two years ago it was badly damaged by fire, and has been restored under the direction of Sir Harold Brakspear, F.R.I.B.A. Princess Alice, Countess of Athlone, and the Earl of Athlone will be the guests of honour at the reopening ceremony, and the Bishop of Chichester will conduct a special service in the Abbot's Hall.

London University

Last week the first pile for the foundations of the extension of London University was driven home. Above this pile will be placed the foundation-stone, which the King will lay on June 25.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Flexwood

I HAVE received a letter from a reader asking : " What is flexwood, in what varieties of wood, in what sizes, and at what price is it obtainable ? "

•

Flexwood is in essentials a wallpaper with a wood face that can be waxed and polished. It is not meant for the inexpensive reproduction of traditional wood panelling, but can be applied to almost any type of wall surface—with as much ease as any ordinary heavy quality wallpaper—and the edges butted to form joints that are practically invisible and need no cover strip to define them.

•

By a special process a very fine wood veneer—almost any wood can be used, but only prima vera, oak, mahogany and walnut are obtainable in this country—about $\frac{1}{80}$ in. thick, I believe, and normally impossible to handle, has been made flexible and mounted on canvas. It can be applied to an evenly finished wall with the certainty that it will neither warp, shrink nor crack. It is so fine that if carried over an intricate shape or minutely moulded projection, it will take upon itself the exact profile and reproduce quite sharp angles.

•

Flexwood is sold in lengths of 8, 9 and 10 feet ; its width varies in accordance with the size of the log from which the veneer is cut, and no particular dimensions are promised, but as a rule all the sheets in one delivery are of approximately the same width.

•

The prices and approximate widths are as follows :—

	Price per sq. ft. s.	d.	Widths
Prima Vera (Obechi)	1	2	10–18 ins.
Quartered Oak	1	2	6–12 ,,
Mahogany	1	2	12–36 ,,
Walnut	1	2	10–36 ,,

Steel Lath Ceilings and Panel Heating

I have received from the Trussed Concrete Steel Co. a copy of the Hy-Rib Handbook. Hy-Rib is a well-known steel lathing, stiffened by rigid high ribs. The ribs and lath are fabricated from a single sheet of metal to produce a one-piece unit of lath and studding.

•

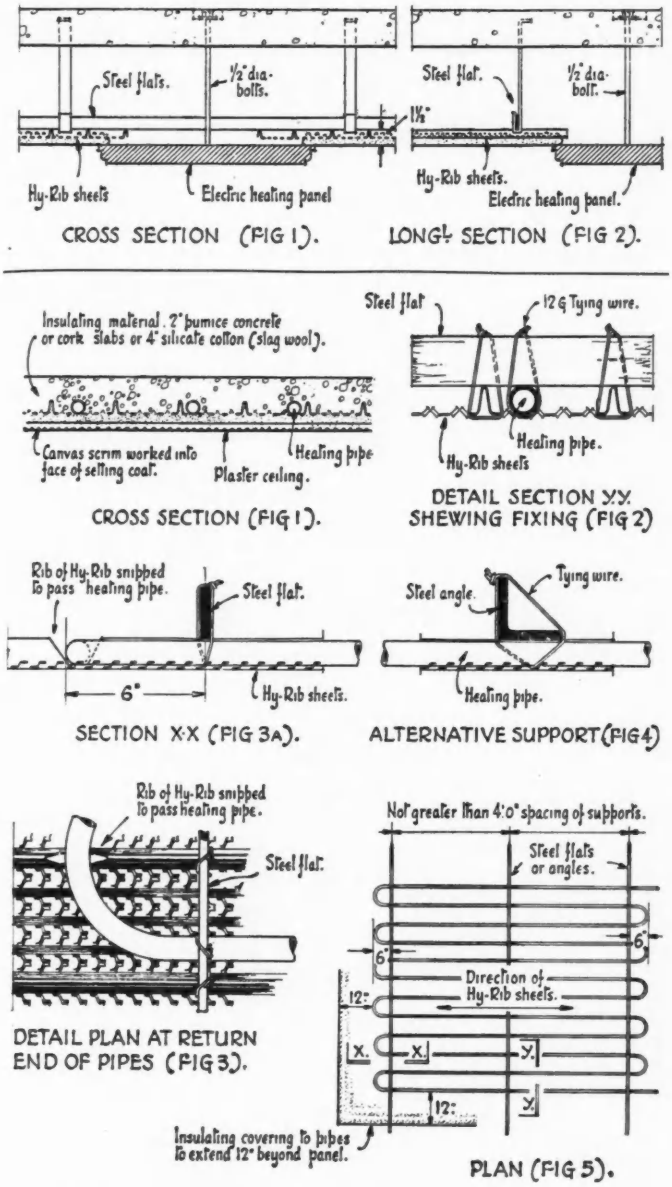
The incorporation of hidden-pipe panel heating systems, or exposed electric panel units, is simplified by the use of Hy-Rib. The standard methods of suspending the lathing lend themselves to the economic arrangement of the latter. The supporting members for the lathing may be relied upon to give adequate fixing for pipes or panels, and the hangers, being few in number, can be placed in position with an accuracy that assures the correct alignment and level of the individual heating units.

•

It will be seen from the accompanying diagrams that the sectional outline of the Hy-Rib sheet lends itself well to the formation of suspended ceilings in which heating pipe panels are embedded. The ribs, serving as spacers, keep the mesh away from the supporting rails, and the pipes may be conveniently nested. The steel rail supports are spaced at intervals to suit both pipes and lathing.

•

The lathing facilitates construction by retaining the insulating material that covers the pipes without further provision. This is


Steel flats.
½" dia. bolts.
1½"
Hy-Rib sheets
Electric heating panel
CROSS SECTION (FIG 1).
Steel flat.
½" dia. bolt.
Hy-Rib sheets.
Electric heating panel.
LONGL SECTION (FIG 2).
Insulating material. 2" pumice concrete or cork slabs or 4" silicate cotton (slag wool).
Canvas scrim worked into face of setting coat.
Plaster ceiling.
Heating pipe
CROSS SECTION (FIG 1).
Steel flat
12 G Tying wire.
Heating pipe.
Hy-Rib sheets
DETAIL SECTION Y.Y. SHEWING FIXING (FIG 2)
Rib of Hy-Rib snipped to pass heating pipe.
Steel flat.
6"
Hy-Rib sheets.
SECTION X·X (FIG 3A).
Steel angle.
Tying wire.
Heating pipe.
ALTERNATIVE SUPPORT (FIG 4)
Rib of Hy-Rib snipped to pass heating pipe.
Steel flat.
DETAIL PLAN AT RETURN END OF PIPES (FIG 3).
Not greater than 4'0" spacing of supports.
Steel flats or angles.
6"
6"
Direction of Hy-Rib sheets.
12"
X.
X.
Y.
Y.
12"
Insulating covering to pipes to extend 12" beyond panel.
PLAN (FIG 5).

Panel heating in ceilings : (above) method of fixing electric heating panels ; (below) details of warming panels in suspended ceilings.

particularly the case when pumice concrete is used and the centering quality of Hy-Rib fully developed. Other insulating material —silicate cotton (slag wool), slab or granulated cork, and so on—may be used, the selection being made, as a rule, by the heating specialist.

Joints in Fibrous Plaster

A reader asks how joints in fibrous plasterwork can be prevented from opening and showing dark cracks.

•

I am told by Messrs. H. E. Gaze that if, when making a joint in fibrous plasterwork, a gap of ½ in. is allowed, and this is filled with a wad of canvas dipped in plaster, and the gap made good with plaster of Paris, the joint will only open under very exceptional circumstances.

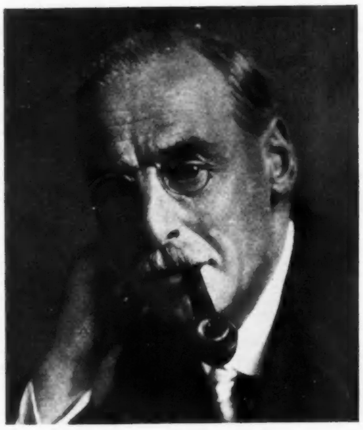
Literature Received

One-Pipe Plumbing *Dent and Hellyer*

QUESTIONS THAT ARISE

Substitute for Lead

¶ M. G. A-K. writes: "*Would you please let me have your expert's opinion on the following query?: I am living in a Georgian house, square and slate roofed, containing 12 rooms. Rain has penetrated the roof in places and the local builder assures me that it is not a matter of the* slates *but of the* lead *work; this, despite patching and repair, is now wearing out. He tells me that it would cost about £120 to insert new lead. As I cannot afford this sum, I asked him if it was possible to employ a modern and less expensive method. He then informed me that on several council houses in the county a new material had been used. Also, the firm who manufactured the material had sent their own experts to carry out the work, which, he thought, could have been undertaken by any builder. At my request he wrote to the firm, but they declined the job as being 'too small.' So, sir, I apply to you for further assistance and information on the subject, for I feel quite sure that there* is *something which could be used for the purpose, to replace the original lead, which involves much costly labour.*"



R. Wynn Owen, F.R.I.B.A., the new president of the Association of Architects, Surveyors and Technical Assistants.

From the description, it seems likely that the alternative material is asphalt, the reason for refusal of the work being that its execution entails the transport of large coppers and furnaces for heating the mastic, which would be out of proportion to the amount of work to be done.

Asphalt is cheap only in fair quantities, when these costs can be spread over a large superficial area. If it is certain that the cause of leakage is defective leadwork it may be possible to replace the lead by a plastic material such as Farotex, applied in two layers with an intermediate reinforcing layer of coarse fabric such as hessian. The suggested cost of £120 for renewal of lead seems unduly high. I have recently had such a case relating to a house (also Georgian) of about the size named and the total cost of taking off and relaying slates, renewing any which were defective, replacing all leadwork (including hips), refixing gutters and repairs to skylights, was £133. Your querist should consult an architect.

E. G.

Colour-washed Brick

¶ T. L. C. writes: "*Our house is exposed to great onslaughts of storm and rain driven almost horizontally against it. It is of brick, colour-washed with cream, the shape of brick showing through (washed brick is characteristic of this part of Somerset). The east and west walls are in excellent condition. The exposed south front needs re-washing for the third time in six years. Is there any known preparation that can be mixed with the colour or underlay it to enable it to withstand the weather and not peel off, giving an effect of measles?*"

I have found that a brush-applied slurry of Supercement as a preliminary to colour-washing results in greatly increased permanence of the colouring when applied on bare brickwork, but this treatment is only applicable to work not already colour-washed. It is the *only* treatment which I have found successful on common Flettons or similar machine-made smooth-faced bricks, on which moreover it confers a less harshly mechanical appearance by softening the sharp arris-lines; looking in the end rather akin to many-times distempered stocks.

For work already treated I should suggest washing and brushing off loose or flaky distemper and painting with such a finish as "Stic-B" in place of redistempering. Generally the measly patches seem to be produced by crystals of salts exuding from particular bricks to which moisture has reached.

E. G.

SOCIETIES AND INSTITUTIONS

A.A.S.T.A.'S ANNUAL MEETING

The annual general meeting of the Association of Architects, Surveyors and Technical Assistants was held recently at the R.I.B.A. The Report of the Council and the balance sheet were adopted unanimously, and the following were elected as officers and members of Council for the year 1933-34:—

President: Mr. R. Wynn Owen, F.R.I.B.A. Vice-Presidents: Messrs. E. Bond; A. N. Cathcart; F. J. Maynard, A.R.I.B.A.; and Ivor D. Newton. Hon. Editor, *The Keystone*, Mr. P. S. Hudson, A.R.I.B.A. Council:—Messrs. E. S. Brown; G. A. Ensor; R. G. Forbes, A.R.I.B.A.; F. P. Harrison; C. H. Holden; L. A. F. Ireland, L.R.I.B.A.; J. H. Kirkby; G. G. J. Lacy, L.R.I.B.A.; C. L. Langshaw; C. G. Manly; C. McLachlan, A.R.I.B.A.; H. A. Mealand, A.R.I.B.A.; W. C. Morgan, A.M.I.STRUCT.E.; V. L. Nash, A.R.I.B.A.; C. B. Pope; C. H. Rattenberry; L. H. B. Roberts, A.R.I.B.A.; S. Sanders, P.A.S.I.; E. A. D. Tanner, A.R.I.B.A.; W. E. Woolley, L.R.I.B.A.; A. H. Wood and J. Rosenfield.

BERKS. ARCHITECTS' MEETING

At the annual meeting of the Berks., Bucks. and Oxon Architectural Association, held at High Wycombe, the officers and members of the Council were elected as follows:

President: Mr. Stanley Hamp, F.R.I.B.A.: vice-presidents: Messrs. W. Austin Daft, A.R.I.B.A., E. Steward Smith, A.R.I.B.A., and G. Langley Taylor, F.R.I.B.A.; hon. secretary: E. A. L. Martyn, A.R.I.B.A.; hon. treasurer: T. T. Cumming, F.R.I.B.A.; hon. auditor: C. B. Willcocks, F.R.I.B.A. Council: Messrs. Steward Smith; Saxon Snell, F.R.I.B.A.; W. R. Morris, F.R.I.B.A.; J. T. Saunders, F.R.I.B.A.: F. Woods, F.R.I.B.A.; H. M. Lewis, A.R.I.B.A.: F. E. Wapshott, L.R.I.B.A.; A. B. West, F.R.I.B.A.; S. E. Burrett; A. Foxley, F.R.I.B.A.: G. L. Taylor; H. J. Stribling, A.R.I.B.A.: C. S. Kimpton, A.R.I.B.A.; W. D. Hartley, A.R.I.B.A.; A. R. Barrett; W. A. Daft; R. F. Dodd, F.R.I.B.A.; G. H. Grayson; N. W. Harrison, F.R.I.B.A.; and T. Rayson, F.R.I.B.A.

TUNBRIDGE WELLS CHAPTER OF ARCHITECTS

At the annual general meeting of the Tunbridge Wells Chapter of the South-Eastern Society of Architects, the following officers were elected :

Chairman : Major W. H. Robinson, F.R.I.B.A.; treasurer, Mr. C. J. Cable, F.R.I.B.A. ; auditor : Mr. H. C. Scotto ; Secretary : Mr. G. Gregor Grant. Committee : Messrs. L. S. Hatchard, A. S. Killby, F.R.I.B.A. ; W. G. Lovell, L.R.I.B.A. ; Stanley Philpot, F.R.I.B.A. ; C. H. Strange, F.R.I.B.A. ; L. Mason Apps ; R. C. Ball, L.R.I.B.A. ; H. J. Benians, A.R.I.B.A. ; R. A. Cooksey, A.R.I.B.A. ; and S. H. Loweth, F.R.I.B.A.

LITERATURE

EARLY GREEK SCULPTURE

The Technique of Early Greek Sculpture. By Stanley Casson. Oxford University Press. Price 25s. net.

THE purpose of Mr. Stanley Casson's extremely able book is to put forward the results of a systematic investigation of the precise methods and tools used for the creation of Greek sculpture as far back as the middle of the fifth century B.C.

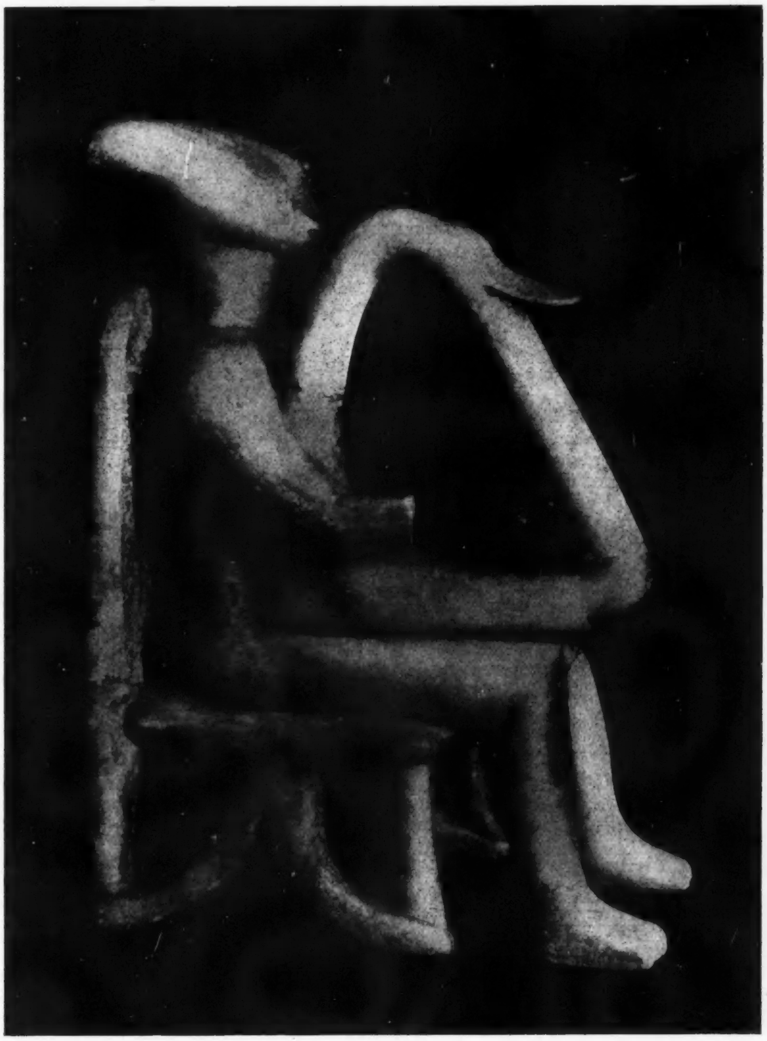
This required from the author a precursory examination of Minoan and Mycenean work in stone and bronze, leading to several conditional deductions, which he has amplified in the second part of the volume. These concern the actual character of the implements used during the periods under consideration, together with an exhaustive examination of contemporaneous sculpture.

In several instances, the testimonies of modern stone and bronze workmanship are examined, step by step, in comparison with the methods employed by the ancient sculptors. The writer takes into consideration throughout the book the interworking of technique and style in Greek sculpture, and presents his opinions with a lucidity which renders them equally comprehensible to the student of archæology, and to the less knowledgeable ordinary reader.

In these enlightened days we are no longer content to regard passively the great works produced in bygone civilizations. We like to know by what methods they were achieved. Hence, it is obvious that Mr. Stanley Casson's book makes a timely appearance, for it appears to be the first publication dealing with an aspect of Greek sculpture hitherto almost entirely ignored. Of the ninety-six photographic illustrations accompanying the letterpress, the greater proportion are either entirely new, or represent unfamiliar details of their subjects. These are augmented by reproductions of a great number of drawings of sculptor's tools, both ancient and modern, including examples of chisels, rasps, gouges, burnishers and hammers.

The graceful ensemble of the figure of the Cycladic harpist (reproduced on this page), presents a beauty of line which might well be emulated today. How much pleasanter it would be to recline in a modern tubular steel chair, modelled upon the type shown in the illustration, than distrustfully to seat oneself on one of these now fashionable crudities wrought on such inherently illogical principles of construction !

JULIA CHATTERTON



In the review of THE TECHNIQUE OF EARLY GREEK SCULPTURE *on this page it is suggested that the chair on which the Cycladic harpist is seated offers a* motif *in design to the modern tubular furniture manufacturers. The illustration is reproduced from the book ; and the original work is on exhibition in Athens National Museum.*

B.B.C. PAMPHLET

Design in Modern Life. Pamphlet No. 667. Published by the British Broadcasting Corporation. Price 6d. net.

THIS little book, with its 32 pages of provocative illustrations and 16 pages of text, is one of the best sixpennyworths that has appeared for years. It expands by means of carefully selected examples of good, bad, ornate and functional design, the theme of the broadcast talks that began recently and are continued each Tuesday evening in the National Programme.

The text of the book consists of a compact summary of these talks, following a brief explanatory introduction by Mr. Noel Carrington ; but it is from the illustrations and their informative captions that the real stimulation is derived. The educational value of these illustrations is immense: the almost bruising shock of the contrast provided in the sections devoted to clothes and furnishing is unforgettable ; and the impartial record of the queer blind spots that afflict our civic consciousness must surely bring thousands of people to a healthy condition of dissatisfaction with poor, unplanned England. How deeply these broadcast talks cut into the nature of England's civic degeneration is suggested in the summary of Mr. Robert Atkinson's contribution (to be given on June 13), which concerns design in public buildings. " Can the modern hospital be called efficient or even economic ? " is one of the disrupting questions in this summary, and " Why does a hospital cost so much more per bed than an hotel ? Why are central sites, worth millions of pounds and surrounded by the roar of traffic, retained for hospitals? Why not small casualty clearing stations in the city to serve larger units outside?"

The illustrations collected by Mr. Maxwell Fry to demonstrate how towns can be planned or just muddled together begin, rightly, with Wren's urbane statement of London's possibilities, and the grand order of Bath, and they also include views of the residential and industrial ulceration that now spreads its leprous crust upon the face of the land. The book concludes with a practical guide for people who want to see examples of good design in buildings, cities and exhibitions, and there is an admirable list of books.

As a piece of propaganda for good design and intelligent thinking about the whole subject of design, this book is wholly successful. Casually introduced to a difficult client, the architect might well discover in this sixpennyworth of interesting common sense an instrument of persuasive potency.

Nobody could resist the illustrations, and once they have fallen for their well-told story the most opinionated obstructionists may become malleable and even understand that design is not a matter of personal whim.

SLUM CLEARANCE AND RE-HOUSING

The Public v. *The Slums*. London: The Rotary International Association for Great Britain and Ireland. Price 6d. (post free 8d.)

THIS illustrated pamphlet has just been issued by the Rotary International Association for Great Britain and Ireland, Tavistock House, Tavistock Square, W.C.

It contains a foreword by Sir E. Hilton Young, Minister of Health, and a special message from Mr. J. M. Keynes describes the scheme for slum clearance which the Rotary Association is now putting forward to follow its "Spend for Employment" campaign.

The aim of the scheme is to assist the national work of slum clearance and rehousing by means of the formation of Public Utility Housing Societies in towns in all parts of the British Isles. It is claimed that this scheme will provide not only considerable employment, but also a sound outlet for money at present lying idle.

Books reviewed in these columns may be ordered through The Architectural Press, 9 Queen Anne's Gate, S.W.1.

Publications Received

The Arts in American Life. By Frederick P. Kettel and R. L. Duffus. New York: McGraw Hill Publishing Co. Price 15s. net.

Arc-Welded Steel Framed Structures. By Gilbert D. Fish. New York: McGraw Hill Publishing Co. Price 30s. net.

Reinforced Concrete Bridge Design. By C. S. Chettoe. London: Chapman and Hall. Price £2 2s. net.

The Disappearing City. By Frank Lloyd Wright. New York: Farquhar Payson. Price $2.50.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The Battlefield of Waterloo

SIR WM. DAVISON inquired of the Secretary of State for Foreign Affairs if he had now received a report from His Majesty's Ambassador at Brussels with regard to the proposal to erect houses on the Field of Waterloo: and what was the purport of the same?

Sir John Simon replied that His Majesty's Ambassador at Brussels had reported that a Private Bill had been laid before the Chamber of Representatives for the purpose of abrogating the law of March 26, 1914, preserving the battlefield of Waterloo from building operations. The matter was under the consideration of the Belgian Government, and His Majesty's Ambassador would keep him informed of developments.

Sir Wm. Davison then asked if it was not a fact that on Thursday, May 4, that Bill was rejected by the Belgian Parliament.

Sir J. Simon said that he had no official knowledge of it, but, in that case, he hoped the hon. member was satisfied.

Government Buildings in Edinburgh

Mr. Scrymgeour-Wedderburn asked the First Commissioner of Works whether there was any probability that any scheme for the construction of new Government buildings in Edinburgh might be approved in the near future; and whether he saw any prospect of agreement among the various persons or bodies in Edinburgh whose opinions were being consulted.

Mr. Ormsby-Gore, the First Commissioner of Works, said he was not in a position to give any definite answer to the first part of the question. All he could say was that he had sought the best advice possible, and was now hopeful of some agreement being reached.

Mr. Scrymgeour-Wedderburn asked whether it was the case that things were being held up by the inability of the people in Edinburgh to agree, and, if their differences could not be composed, would the Government produce a scheme of their own, in view of the urgency of the matter.

Mr. Ormsby-Gore said it was not exactly a question of urgency, but it would take some time to work out a new plan and new designs. Until the questions of siting and accommodation and the nature of the buildings had been agreed on with the various people in Edinburgh, there was no real hurry.

Trade Items

Messrs. J. and H. Patteson, Ltd., of 96, Oxford Road, Manchester, whose most recent London contract comprises the whole of the marble work for the control room and the main entrance hall to the new Battersea Power Station, have appointed Mr. F. W. Holloway as resident representative for London and the Southern Counties. His address is 7, Bridgeman Road, Teddington, Middlesex (Telephone No.: Kingston 4710).

Messrs. Pattesons have carried out many contracts throughout the country in marble, granite, stone, mosaic, terrazzo, and bronze, and also ecclesiastical work in oak.

*

Competing at the London Music Festival Competition held at the Westminster Central Hall on March 22, the Truscon Singers were successful in winning the first prize for Quartets, gaining a Certificate of Merit and cheque; also the privilege of performing at the Final Prize-winners' Concert which was held on Monday, April 10.

The Truscon Singers' entry into the Musical Competition world began in June last year. In five competitions they have gained four first prizes (medal and certificates) and one second, being beaten by only two per cent. in the latter instance.

The Truscon Singers comprise Messrs. J. Orr, H. W. Rose, T. Hawkins and D. Munro and the musical director is F. G. Windsor, all of whom are members of the London Staff of the Trussed Concrete Steel Co., Ltd.

*

Messrs. Sal-Ferricite Constructions, Ltd., have removed their offices to 119 Victoria Street, S.W.1. Telephone Nos.: Victoria 3224-3225.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Gaumont Cinema, Cheltenham (pages 656–662 and supplement). General contractors, McLaughlin and Harvey, Ltd. Sub-contractors: Archibald D. Dawnay and Sons, Ltd., steelwork; Clark and Fenn, Ltd., plaster and decorations; A. Anderson and Son, electric wiring; Siegwart Flooring Co., Ltd., flooring; Garton and Thorne, Ltd., outside sign and canopy; Bulman Jupiter Screen Co., Ltd., perforated screen; G. N. Haden and Sons, Ltd., heating and ventilation; A. E. Davis, ironmongery; John Compton Organ Co., Ltd., organ; Frank Burkitt, Ltd., projection room shutters; Knight & Co. (Engineers), Ltd., fireproof curtain; Turners, seating and carpets; Lawford Asphalte Co., asphalting; Marble Mosaic Co., Ltd., terrazzo floor; Arthur Scull and Sons, Ltd., plumbing; Bath and Portland Stone Firms, Ltd., figures on front; E. G. Walters & Co., Ltd., floors in manager's flat, etc.; British Acoustic Films, Ltd., talking installation; Martin Van Straaten, tilers; Claude-General Neon Lights, Ltd., lights to sign; The Automatic Sprinkler Co., Ltd., sprinklers; Korkoid Decorative Floors, entrance hall floor; Potter-Rax Gate Co., hand rails; Geo. Bence and Sons, glazing and drainage, etc.; Sharp and Fisher, Ltd., cement, etc.; H. Packer and Co., Ltd., bricks, haulage, sand, etc.; Farquharson Bros. & Co., timber; Moler Products, Ltd., partition blocks; Crittall Manufacturing Co., Ltd., window frames; J. Wright & Co. (New Malden), Ltd., floor fillets; Hitchens Flush Woodwork, Ltd., entrance hall panelling; F. H. Pride, lighting fittings; Haskins, Ltd., steel shutters; Kingsmill Metal Co., poster frames and grilles; Fortilite, Ltd., cold glaze to walls; Benham & Sons, Ltd., kitchen equipment; Bostwick Gate Co., collapsible gates; Laminated Wood Products, flush doors.

Houses at Kenton (page 664). General contractors, H. R. and P. (London) Ltd. Sub-contractors: London Brick Co. and Forders, Ltd., Flettons; Askham Brick and Tile Co., facing bricks; Cement Marketing Co., Ltd., Snowcrete; Kleine Patent Fire Resisting Flooring Syndicate, roofs; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt; Crittall Manufacturing Co., Ltd., metal windows; R. May and Son and the Wealdstone Joinery Works, timber and joinery; Standard Wallpaper Co., Ltd., grates, mantels and door furniture.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The CAMBERWELL B.C. has adopted a scheme, prepared by Messrs. Culpin and Bowers, for extensions at the Town Hall, at an estimated cost of £50,000.

Plans passed by the CAMBERWELL B.C.: Blocks of flats, site of 40-2 Shard Road, for Messrs. W. H. Woodruffe and Son; building extensions, adjacent to Herne Hill Congregational Church, for Messrs. Rees and Partners; extension, premises of Messrs. Samuel Jones & Co., Peckham Grove, for Messrs. Bishop and Etherington Smith.

The Surrey Education Committee has approved plans for the erection of a central school for 360 pupils and a junior school for 384 pupils at CHEAM.

The Surrey Education Committee has purchased school sites at CUDDINGTON, where 4,500 houses are to be erected. A junior school is to be built as soon as possible.

The EAST HAM Corporation is to erect 98 dwellings on the Goosleley Lane estate, at an estimated cost of £32,500.

Plans passed by the EAST HAM Corporation: Factory extensions, High Street South, for Messrs. Burgoyne, Burbridges & Co.; factory extensions, Factory Road, Silvertown, for Messrs. Bateman, Loders and Nucholine, Ltd.; shop, Johnstone Road, for Mr. E. C. Winter; 15 houses, Grantham Road, for Messrs. A. W. Jaggers and Sons.

Plans passed by the LEWISHAM B.C.: Rebuilding, 20 Upwood Road, for Messrs. Thomas Allen (Lee), Ltd.; rebuilding pavilion, Rutland Road, for Messrs. Rogers and Rogers; two shops, Downham Way, for Mr. C. Durbin; four houses, Westwood Park, for Mr. Newton Anderson; two houses, Ewhurst Road, for Mr. L. A. Denham; 33 houses and four shops, Brockley Road, for Mr. Hugh Macintosh; additions, 164-6 Rushey Green, for Messrs. Thompson and Walford; rebuilding, 32-4 Brockley Park, for Mr. A. Casse; 144 houses, Manor Lane estate, for Manor Estates, Ltd.; houses, Manor Lane estate, for Messrs. Hugh F. Thoburn, Ltd.; streets, Peak Hill Lodge estate, Sydenham, for Messrs. Brett and Son; houses, Perry Rise estate, Forest Hill, for Mr. R. B. Rowell; houses, Woodcombe Crescent, Forest Hill, for Mr. A. G. Cole.

Plans passed by the SOUTHALL-NORWOOD U.D.C.: 28 houses, Delamere Road, for Hayes Bridge Estate, Ltd.; 30 houses, Longford Avenue, for Messrs. G. Wimpey & Co., Ltd.; three shops, North Road, for Mr. W. Etheringham; four houses, Dorset Avenue, for Messrs. Warren and Woods; roads and sewers, Butterfly estate, for Property Development and Construction Co., Ltd.; lock-up shops, North Road, for Mr. E. Hayes.

SOUTHERN COUNTIES

The BRIGHTON Corporation Pavilion Committee recommends the scheme for re-modelling the Dome and Corn Exchange, at an estimated cost of £60,000, and an architect is to be appointed to prepare drawings and specifications and to superintend the work.

Plans passed by the WORTHING Corporation: 12 houses, Sunny Close, for Mr. C. W. Fielder; three houses, West Parade, for Mr. M. R. Fletcher; flats, Lansdowne Close, for Mr. F. W. Payne; six flats, Christ Church Road, for Mr. H. M. Potter; two houses, Offington Drive, for Mr. L. Daynes Wood; two houses, Westland Avenue, for Mr. E. G. West; three houses, Pembroke Avenue, for Mr. S. C. Kirby; two houses, Loxwood Avenue, for Mr. H. M. Potter; six houses, Cottenham Road, for Mr. H. M. Potter; 19 houses, Sunningdale Road, for Southwick and Downsview Estates Building Co.; three houses, Lime Tree Avenue, for Mr. G. W. Warr; conversion of 43 Warwick Gardens into flats, for Mr. A. T. W. Goldsmith; 15 houses Seamill Park Crescent, for Messrs. L. W. Macer & Co.; two houses and shops, Tarring Road, for Mr. R. J. Ward; alterations, 17 and 19 The Broadway, Brighton Road, for Mr. W. T. Bagnall; eight houses and shops, Upper Brighton Road, for Mr. R. Hodgson; five houses, Second Avenue, for Messrs. F. Sandell and Sons; additions to shops and dance hall, Chapel Road, for Mr. E. J. Love; five houses, Southdownview Road, for Mr. R. Hasler.

EASTERN COUNTIES

The IPSWICH Corporation Health Committee has prepared a scheme for the provision of an abattoir on the Portman's Walk site, the cost being estimated at £26,250.

SOUTH-WESTERN COUNTIES

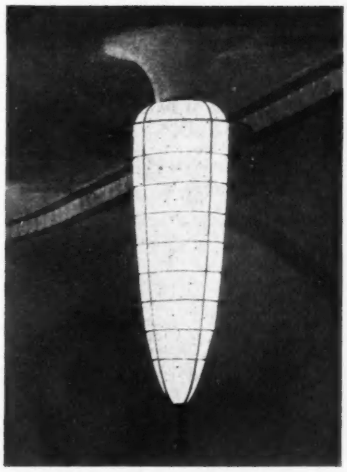
The BRISTOL Corporation has prepared a scheme for slum clearances and re-housing at a cost of £1,075,000. Provision is made for the erection of 3,048 dwellings.

Plans passed at PLYMOUTH: Two houses, Cranmere Road, Higher Compton, for Messrs. J. Davy and Son; two houses, Cranmere Road, for Mr. R. Hockin; four bungalows, off Kent Road, for Mr. W. G. Perkins; two houses, Outlands Villas, for Mr. H. L. Pile; two houses, Brean Down Road, for Mr. A. H. White; two houses, Cresthill estate, for Mr. F. Westcott; addition to tenement, 1 Westbourne Road, for Mr. A. C. Reed; additions to tenements, 19, 20 and 21 Thornbury Park Road, for Mr. W. Burch; alterations to premises, Russell Street, for Messrs. Denniford and Son; layout of Pounds estate, Weston Park Road, for H. J. Hammick; extension of Plymouth College, for the Governors; six houses, St. Martin's Avenue, for Mr. R. T. Pearse; three houses, Barne estate, for Mr. C. Jope; alterations to premises, 60-61, Union Street, for Mr. J. R. Randall.

Plans passed by the TORQUAY Corporation: Three houses, Herbert Road, for Messrs. Midgley and Hardy; extensions, Princes Hotel, Park Hill Road, for Mrs. O. P. Stone; four houses, Cedar Court estate, for Messrs. H. Lloyd and Son; three houses, Park Hill Road, for Messrs. T. Vanstone and Sons; four houses, Shiphay Avenue, for Mr. B. Evans; extensions, Palace Hotel, Babbacombe Road, for Mr. G. W. Hands; six almshouses, Barton Hill Road, for Palmer trustees.

MIDLAND COUNTIES

Plans are in preparation for a new elementary school for the R.C. Authorities in Lyttleton Road, Stechford, BIRMINGHAM.



A lighting fitting in the Cheltenham cinema, detail drawings of which are reproduced on page 660.

Plans passed by the WOLVERHAMPTON Corporation: Two houses, Hollybush Lane, for Mr. W. Howell; four houses, Alexander Road, for Messrs. Herbert & Co.; reconstruction, 22-4 Dudley Street, for Mr. P. Newman; alterations, Parish Hall, Church Road, for Penn trustees; three houses, Rhylls Lane, and shops at Springhill Lane, for Messrs. Cleland and Hayward; six houses, Rhylls Lane, for Mr. W. Winsper; works extension, Salop Street, for Messrs. J. Shaw and Son; shop premises, Salop Street, and School Street, for Mr. W. S. Miller; new streets, Marston Road estate, for Mr. A. J. Jesson; four houses, Cannock Road, for Mr. Foster Radbone; four houses, Alexander Road, for Mr. W. Mann; four houses, Watery Lane, for Mr. C. B. Jones; four houses, Penn House Avenue, for Messrs. Shutt Bros.

The WOLVERHAMPTON Corporation has prepared a scheme for slum clearance and re-housing at a cost of £172,500.

The WOLVERHAMPTON R.C. Authorities are to build a new church, to accommodate 600 persons, for the parish of Wednesfield.

NORTHERN COUNTIES

The LEEDS Corporation is seeking sanction to borrow £48,000 for the erection of 180 houses on the Middleton estate.

Plans passed by the RAWTENSTALL Corporation: Two bungalows, West View Road, Waterfoot, for Mr. E. Phillips; 12 houses, Bridleway, Waterfoot, for Mr. S. Barnes; eight houses, Burnley Road, for Messrs. G. Clayton and Sons, Ltd.; two houses, Bury Road, for Messrs. O. Ashworth, Ltd.; two houses, Bury Road, for Messrs. T. and J. Foster; four houses, Newchurch Road, Waterfoot, for Messrs. Hodgson and Rayner.

Plans passed by the SHEFFIELD Corporation: Six houses, Coppice View, for Mr. A. Spooner; three houses, Warminster Road, for Mr. C. G. Robinson; two houses, Parkhead Road, for Mr. A. Ramsay; two shops and house, Hastilar Road, for Mr. J. Allison; house and shop, Nodder Road, for Mr. H. H. Sparks; two houses and shops, Manor Lane, for Mr. J. H. Shaw; two houses, Forres Street, for Mr. F. Ridal; four houses, Bawtry Road, for Mr. G. R. Parkin; eight houses, Woodseats Road, for Mr. J. Enock; four houses, Malton Street, for Mr. E. Gardham; two houses, Bank House Road, for Mr. C. B. Malam-Wilson; three houses, Shenstone Road, for Mr. J. H. Mason; two houses, Chorley Drive, for Mr. J. W. Sivil; four houses, Fulwood Road, for Mrs. M. T. Williams; six houses, Kilton Hill, for Mr. C. W. Alflat; two houses, Mundella Place, for Mr. E. Gardham; six houses, Hucklow Road, for Messrs. J. Copley and, Sons; four houses, Longsett Avenue, for Mr. M. Simpson; eight houses, Laird Road, for Mr. G. E. Marlow; 74 houses, Gleadless, for Messrs. A. and E. Tate.

Plans passed at SHIPLEY: House and shop, Valley Street, for Mr. Armitstead; four houses, Westfield Lane, for Mr. A. Dickinson; two houses, Poplar Crescent, for Messrs. Dale and Wild; extension of works, Dockfield Road, for Messrs. Bowdin, Webb and Co., Ltd.; 32 houses, Glenside Road, for Messrs. J. and P. Obank; lay-out for 96 houses, Wrose Road, for Mr. H. Ogden.

The TODMORDEN Corporation has authorized the erection, on the Ashenhurst Estate, of eight bungalows and 46 houses, at an estimated cost of £18,854.

Plans passed by the TYNEMOUTH Corporation: 14 houses, Balkwell estate, for Messrs. J. A. Whitelaw, Ltd.; 27 houses, Tynemouth Park estate, for Mr. J. R. Wallace; 24 houses, Tynemouth Park estate, for Mr. W. Moore; six houses, Billy Mill estate, for Mr. J. H. Rogers; two shops, Chirton Green, for Messrs. F. R. N. Haswell and Son; 4 houses, West Allotments, for Mr. W. R. Spedding.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	Banbury ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	Cambridge ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durnam ..	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	Halifax ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	Jarrow ..	N.E. Coast	5½	1 1¼
A	Keighley ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	Lancaster ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	5½	1 1¼
A_2	Nantwich ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	Oakham ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	Paisley ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	St. Albans ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	Tamworth ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	Yarmouth ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	2	16	0
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		8	9
Building Sand	,,		8	6
Washed Sand	,,		10	9
2" Broken Brick	,,		9	6
¾" ,, ,,	,,		12	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	2	0	3	2
Bends	each	5	6	13	0
Inspection bends	,,	15	3	24	0
Single junctions	,,	9	3	18	0
Double junctions	,,	14	0	27	6
Lead wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	7	7	6
Red Rubbers for Arches	,,	13	16	0
Multicoloured Facings	,,	8	17	6
Luton Facings	,,	8	10	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	8
2½" ,, ,, ,,	,,		1	11
3" ,, ,, ,,	,,		2	2
4" ,, ,, ,,	,,		2	11

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	26	10	0
22" × 12" Marchionesses	,,	26	0	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	17	6
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, ,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	5	0	0
Best hand-made do.	,,	5	10	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		2	0

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1⅛"	,,	1	7	6
,, 1¼"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9¼	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	62½	Galvanized gas	50
Water	58¾	,, water	45
Steam	55	,, steam	40
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		7		10
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	0
,, drawn pipes	,,	1	0	6
,, soil pipe	,,	1	3	6
,, scrap	,,		9	6
Solder, plumbers'	lb.			11
,, fine do.	,,		1	3
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	8	6
Plaster, coarse	,,	2	10	6
,, fine	,,	4	15	0
Hydrated lime	,,	2	16	0
Sirapite	,,	3	10	0
Keene's cement	,,	5	10	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
,, ,, 26 oz. ,, ,, ,,	,,					3¾
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
⅛" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		17	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12″ deep and cart away	Y.S.		3	0
,, to reduce levels n/e 5′ 0″ deep and cart away	Y.C.		9	0
,, to form basement n/e 5′ 0″ deep and cart away	,,		9	6
,, ,, 10′ 0″ deep and cart away	,,		10	0
,, ,, 15′ 0″ deep and cart away	,,		10	6
If in stiff clay add	,,		3	0
If in underpinning ,,	,,		5	0
Digging, return, fill and ram ,,	,,		4	6
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			6
,, ,, to trenches	,,			6
,, ,, extra, only if left in	,,			3½
Hardcore, filled in and rammed	Y.C.		10	9
Portland cement concrete in foundations (6-1)	,,	1	9	6
,, ,, ,, (4-2-1)	,,	1	14	6
,, ,, ,, underpinning	,,	1	18	0
Finishing surface of concrete, spade face	Y.S.			9

DRAINLAYER

		4″		6″	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions		3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	30	0	0
,, ,, in cement	,,	32	0	0
,, Stocks in cement	,,	39	15	0
,, Blues in cement	,,	57	10	0
Extra only for circular on plan	,,	2	15	0
,, backing to masonry	,,	1	15	0
,, raising on old walls	,,	2	15	0
,, underpinning	,,	7	10	0
Fair Face and pointing internally	F.S.			2
Extra over fletton brickwork for picked stock facings and pointing	,,			6
,, ,, ,, red brick facings and pointing	,,		1	0
,, ,, ,, blue brick facings and pointing	,,		1	6
,, ,, ,, glazed brick facings and pointing	,,		3	9
Tuck pointing	,,			8
Weather pointing in cement	,,			4
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	3

ASPHALTER

		s.	d.
½″ Horizontal dampcourse	Y.S.	4	6
¾″ Vertical dampcourse	,,	6	9
¾″ paving or flat	,,	4	0
1″ paving or flat	,,	5	6
1″ × 6″ skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		18	9
Bath stone and do., all as last	,,		14	6
Artificial stone and do.	,,		15	3
York stone templates, fixed complete	,,		13	6
,, thresholds	,,		16	0
,, sills	,,	1	3	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3″ lap, and fixing with compo nails, 20″ × 10″	Sqr.	3	10	0
Do., 18″ × 9″	,,	3	7	0
Do., 24″ × 12″	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	10	0
Tiling, best hand-made sand-faced, laid to a 4″ gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		4	6
Fir framed in floors	,,		6	0
,, ,, roofs	,,		7	3
,, ,, trusses	,,		8	6
,, ,, partitions	,,		10	6
¾″ deal sawn boarding and fixing to joists	Sqr.	1	15	6
1″ ,, ,, ,, ,,	,,	1	19	6
1¼″ ,, ,, ,, ,,	,,	2	5	0
¾″ × 2″ fir battening for Countess slating	,,		10	6
Do. for 4″ gauge tiling	,,		14	0
Stout feather-edged tilting fillet	F.R.			4½
Patent roofing felt, 1 ply	Y.S.		2	6
,, ,, ,, 2 ,,	,,		3	0
,, ,, ,, 3 ,,	,,		3	6
Stout herringbone strutting to 9″ joists	F.R.		1	0
1″ deal gutter boards and bearers	F.S.		1	4
1¼″ ,, ,, ,, ,, ,,	,,		1	8
2″ deal wrought rounded roll	F.R.			9
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	3	0
1¼″ do.	,,	3	2	0
1½″ do.	,,	3	11	0
1″ deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	10
1¼″ do.	,,		2	1

CARPENTER AND JOINER—*continued*

		s.	d.
1½″ deal moulded sashes of average size	F.S.	2	3
2″ ,, ,,	,,	2	6
1½″ deal-cased frames, double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1½″ heads, 1″ inside and outside linings, ⅜″ parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	4	3
2″ ,, ,, ,,	,,	4	6
Extra only for moulded horns	Each		9
1½″ deal four-panel square, both sides, door	F.S.	2	6
2″ ,, ,, ,,	,,	3	0
1½″ ,, but moulded both sides	,,	3	0
2″ ,, ,, ,,	,,	3	6
4″ × 3″ deal, rebated and moulded frames	F.R.	1	6
4½″ × 3½″ ,, ,,	,,	2	0
1½″ deal tongued and moulded window-board, on and including deal bearers	F.S.	2	0
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	3	0
1½″ deal moulded wall strings	,,	2	6
1½″ ,, outer strings	,,	2	9
Ends of treads and risers housed to string	Each	2	0
3″ × 2″ deal moulded handrail	F.R.	1	6
1″ × 1″ deal balusters and housing each end	Each	2	6
1½″ × 1½″ ,, ,,	,,	3	3
3″ × 3″ deal wrought framed newels	F.R.	1	6
Extra only for newel caps	Each	7	6
Do., pendants	,,	7	6

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	0
Riveted plate or compound girders, and hoisting and fixing in position	,,	1	3	0
Do. stanchions with riveted caps and bases and do.	,,	1	2	0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		1	0
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	14	6
Do. in flashings	,,	1	17	0
Do. in covering to turrets, etc.	,,	2	4	0
Do. in soakers	,,	1	10	0
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3¾
Close ,, ,,	,,			4½

		½″		¾″		1″		1½″		2″		4″	
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Lead service pipe and fixing with pipe hooks	F.R.	1	2	1	7	2	1	2	8	3	8	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	6
Do. to stop ends	,,		7		9	1	0	1	3	2	0	—	
Boiler screws and unions	,,	3	6	4	0	5	6	8	0	—		—	
Lead traps	,,	—		—		—		7	6	10	0	—	
Screw down bib valves	,,	7	6	10	6	12	6	—		—		—	
Do. stop cocks	,,	10	0	12	0	16	0	23	6	56	6	—	

		s.	d.
4″ cast-iron ½-rd. gutter and fixing	F.R.	1	3
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	3	0
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	6
Extra, only for shoes	Each	2	6
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		3	0
Do. in n/w to beams, stanchions, etc.	,,		4	6
Lathing with sawn laths to ceilings	,,		1	6
½″ screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		2	6
Do. vertical	,,		2	3
Rough render on walls	,,		1	9
Render, float and set in lime and hair	,,		2	6
Render and set in Sirapite	,,		2	9
Render, backing in cement and sand, and set in Keene's cement	,,		4	0
Extra, only if on lathing	,,			9
Keene's cement, angle and arris	F.R.			8
Arris	,,			3
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1″ girth	,,			2
1″ granolithic pavings	Y.S.		4	6
1½″ ,,	,,		6	0
6″ × 6″ white glazed wall tiling and fixing on prepared screed	,,		18	0
9″ × 3″ ,, ,, ,, ,,	,,	1	4	6
Extra, only for small quadrant angle	F.R.			9

GLAZIER

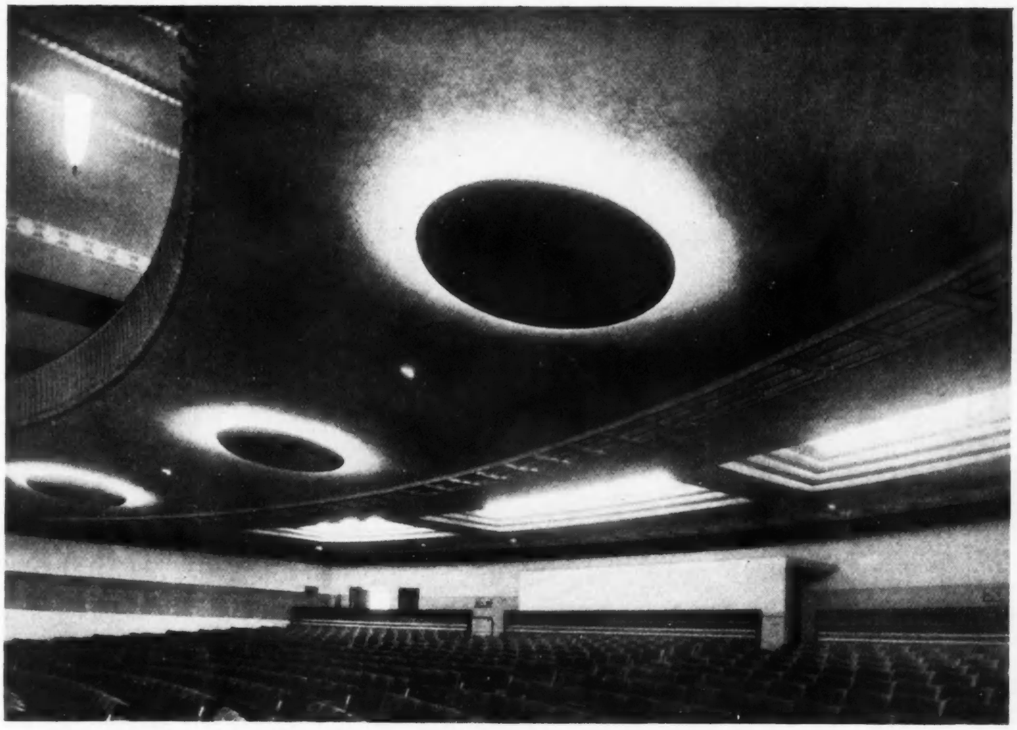
		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	,,	2	9

GAUMONT PALACE, CHELTENHAM

W. E. TRENT, ARCHITECT; ERNEST TULLEY, ASSISTANT



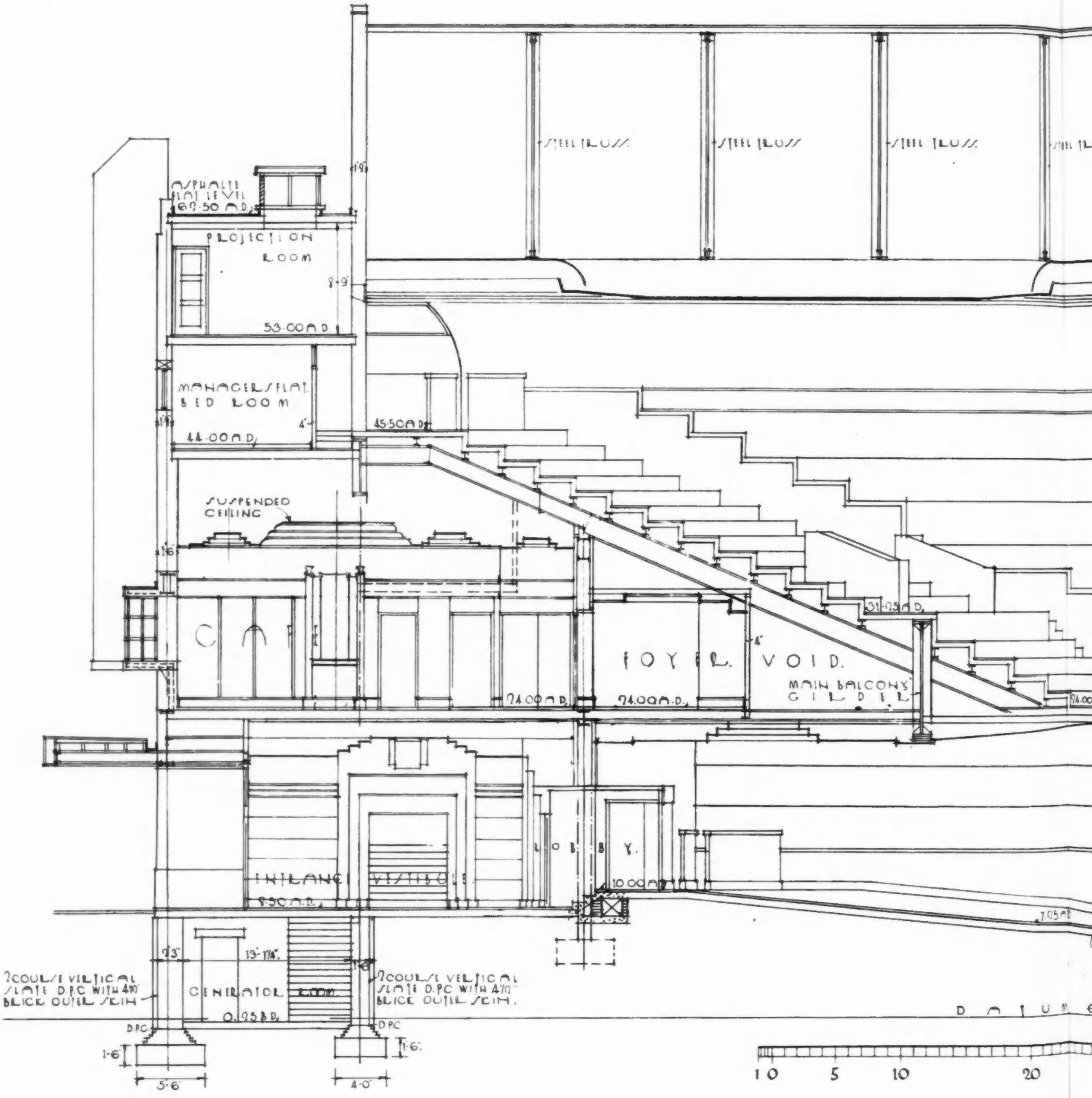
LIGHTS UNDER THE BALCONY SOFFIT

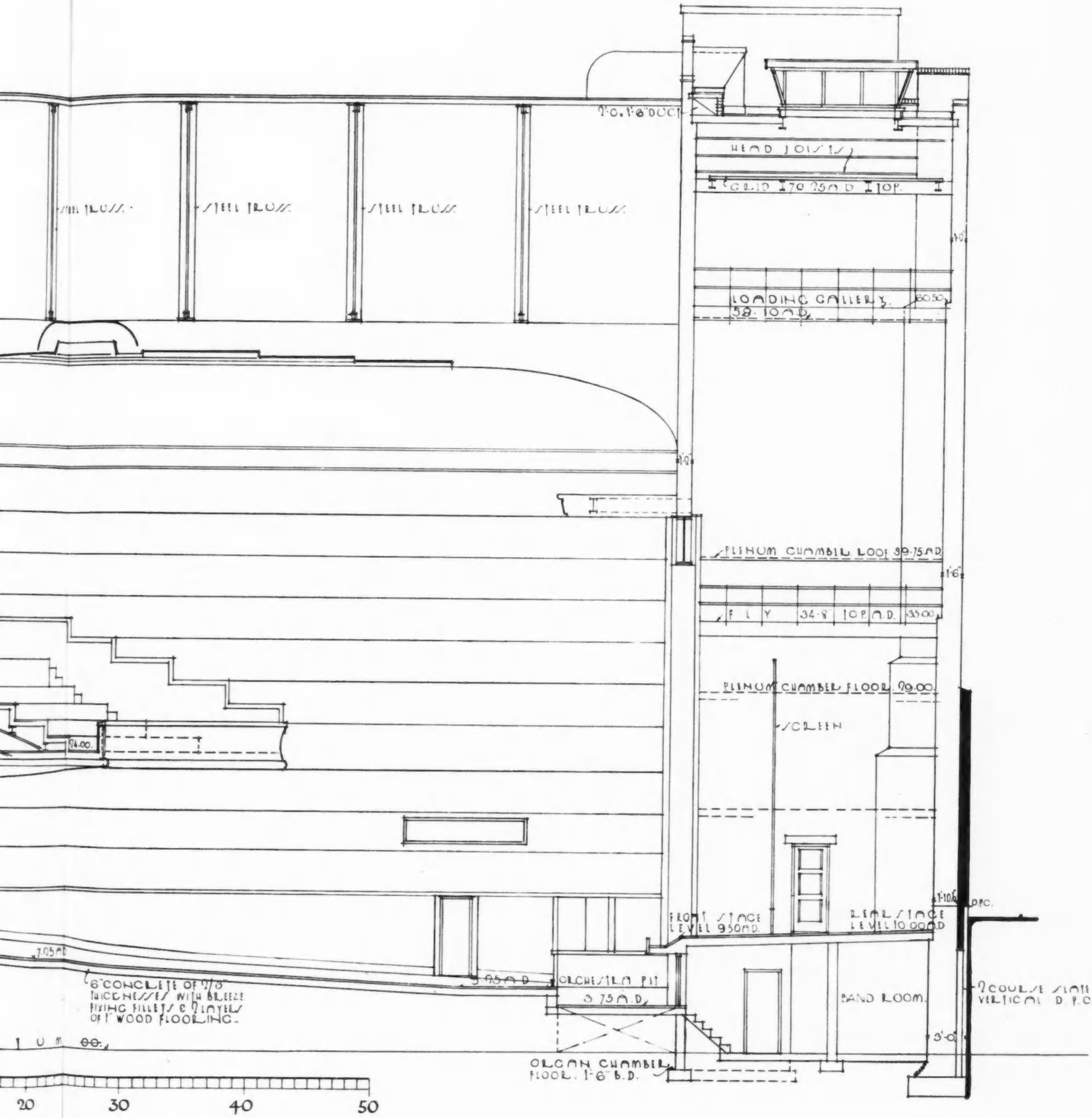
ON the centre and back pages of this supplement are reproduced drawings of longitudinal and cross sections of the picture theatre of which plans, photos and a description appear in the body of this issue.

Both give interesting details of the constructional materials and units. In the former, on the right, the ample nature of the stage facilities is suggested, and on the left is shown the flat for the manager, which is fitted in at the rear of the balcony, on the main façade, below the projection chamber and above the café, which has a suspended ceiling.

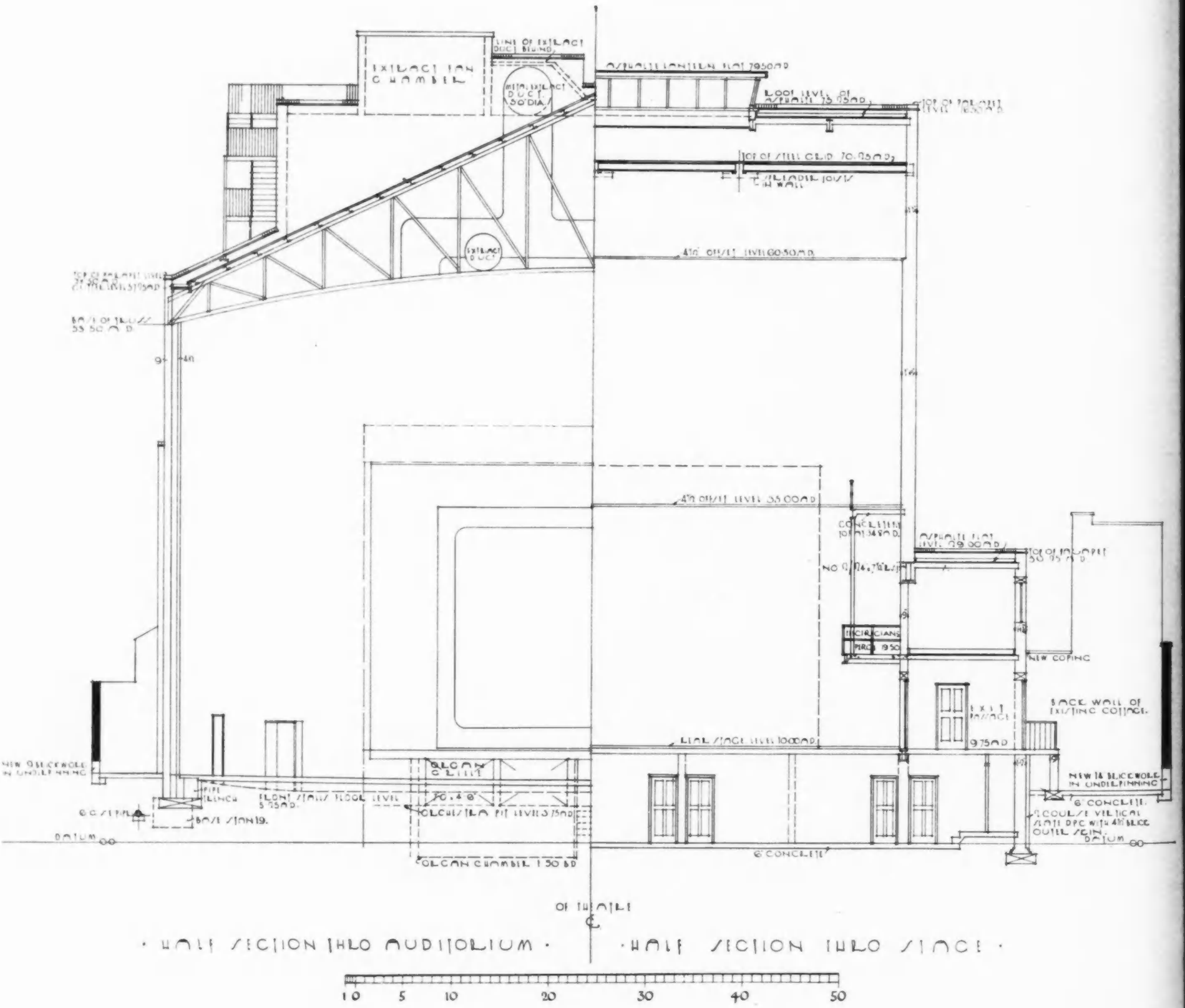
The cross section, halved vertically, shows very clearly the manner in which the construction varies and tallies as between the two portions of the building lying in front of and behind the proscenium.

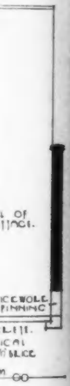
The forward portion of the soffit of the balcony is sloped upwards towards the screen, to give uninterrupted sight lines, as suggested in the view above. Drawings of its light fittings, and of others in the house, appear on page 660.


STEEL TRUSS
STEEL TRUSS
STEEL TRUSS
ASPHALTE FLAT LEVEL 62.50 A.D.
1'9"
PROJECTION ROOM
8'9"
53.00 A.D.
MANAGER'S FLAT BED ROOM
1'9"
4"
44.00 A.D.
45.50 A.D.
SUSPENDED CEILING
1'6"
CAFE
24.00 A.D.
FOYER
VOID.
24.00 A.D.
4"
MAIN BALCONY GIRDER
31.25 A.D.
24.00
ENTRANCE VESTIBULE
8.50 A.D.
LOBBY.
10.00 A.D.
7.05 A.D.
2'3"
13'1½"
1'6"
2 COURSE VERTICAL SLATE D.P.C WITH 4½" BRICK OUTER SKIN
GENERATOR ROOM
0.25 A.D.
2 COURSE VERTICAL SLATE D.P.C WITH 4½" BRICK OUTER SKIN.
D.P.C.
D.P.C
1'6"
1'6"
5'6"
4'0"
DATUM
1 0 5 10 20


2'0" × 1'6" DUCT
HEAD JOISTS
GRID 70.25 A.D. TOP.
1'5"
STEEL TRUSS
STEEL TRUSS
STEEL TRUSS
STEEL TRUSS
LOADING GALLERY 58.10 A.D.
60.50
1'9"
PLENUM CHAMBER ROOF 39.75 A.D.
1'6"
FLY 34.8 TOP A.D.
35.00
PLENUM CHAMBER FLOOR 29.00
SCREEN
24.00
1'10½
D.P.C.
FRONT STAGE LEVEL 9.50 A.D.
REAR STAGE LEVEL 10.00 A.D.
7.05 A.D.
6" CONCRETE OF 2/3" THICKNESSES WITH BREEZE FIXING FILLETS & 2 LAYERS OF 1" WOOD FLOORING.
5.95 A.D.
ORCHESTRA PIT
3.75 A.D.
BAND ROOM.
2 COURSE SLATE VERTICAL D.P.C.
3'-0"
ORGAN CHAMBER FLOOR. 1'-6" B.D.
DATUM 00.
20
30
40
50

Supplement to THE ARCHITECTS' JOURNAL for May 17, 1933


EXTRACT FAN CHAMBER
LINE OF EXTRACT DUCT BEHIND.
METAL EXTRACT DUCT 5'0" DIA.
EXTRACT DUCT
ASPHALTE LANTERN FLAT 79.50 M.D.
ROOF LEVEL OF ASPHALTE 75.75 M.D.
TOP OF PARAPET LEVEL 76.50 M.D.
TOP OF STEEL GRID 70.75 M.D.
SPREADER JOISTS IN WALL
4½" OFFSET LEVEL 60.50 M.D.
TOP OF PARAPET LEVEL
GUTTER LEVEL
BASE OF TRUSS 55.50 M.D.
9"
4½"
4½" OFFSET LEVEL 35.00 M.D.
ASPHALTE FLAT LEVEL 29.00 M.D.
ELECTRICIANS PERCH 19.50
NEW COPING
EXIT PASSAGE
9.75 M.D
BACK WALL OF EXISTING COTTAGE.
NEW 14 BRICKWORK IN UNDERPINNING
6" CONCRETE.
2 COURSE VERTICAL SLATE DPC WITH 4½ BRICK OUTER SKIN.
DATUM 0.0
REAL STAGE LEVEL 10.00 M.D.
6" CONCRETE
ORGAN GRILLE
ORCHESTRA PIT LEVEL 3.75 M.D.
ORGAN CHAMBER 1.50 B.D
FRONT STALLS FLOOR LEVEL 5.75 M.D.
PIPE TRENCH
NEW 9 BRICKWORK IN UNDERPINNING
DATUM 0.0
℄ OF THE AISLE
· HALF SECTION THRO AUDITORIUM ·
· HALF SECTION THRO STAGE ·
10
5
10
20
30
40
50


L OF
IJINGI.
ICEWOLE
PINNING
LEIT.
ICAL
BLICE
M 60

HEIGHT FROM FLOOR TO FLOOR

No. of risers	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"	6'7"	6'8"	6'9"	6'10"	6'11"	7'0"	7'1"	7'2"	7'3"	7'4"	7'5"	7'6"	7'7"	7'8"	7'9"	7'10"	7'11"	
8	9																								8
9	8	8 1/9	8 2/9	8 1/3	8 4/9	8 5/9	8 2/3	8 7/9	8 8/9	9															9
10	7 1/5	7 3/10	7 2/5	7 1/2	7 3/5	7 7/10	7 4/5	7 9/10	8	8 1/10	8 1/5	8 3/10	8 2/5	8 1/2	8 3/5	8 7/10	8 4/5	8 9/10	9						10
11	6 6/11	6 7/11	6 8/11	6 9/11	6 10/11	7	7 1/11	7 2/11	7 3/11	7 4/11	7 5/11	7 6/11	7 7/11	7 8/11	7 9/11	7 10/11	8	8 1/11	8 2/11	8 3/11	8 4/11	8 5/11	8 6/11	8 7/11.	11
12	6	6 1/12	6 1/6	6 1/4	6 1/3	6 5/12	6 1/2	6 7/12	6 2/3	6 3/4	6 5/6	6 11/12	7	7 1/12	7 1/6	7 1/4	7 1/3	7 5/12	7 1/2	7 7/12	7 2/3	7 3/4	7 5/6	7 11/12	12
13	5 7/13	5 8/13	5 9/13	5 10/13	5 11/13	5 12/13	6.	6 1/13	6 2/13	6 3/13	6 4/13	6 5/13	6 6/13	6 7/13	6 8/13	6 9/13	6 10/13	6 11/13	6 12/13	7	7 1/13	7 2/13	7 3/13	7 4/13	13
14	5 1/7	5 3/14	5 2/7	5 5/14	5 3/7	5 1/2	5 4/7	5 9/14	5 5/7	5 11/14	5 6/7	5 13/14	6	6 1/14	6 1/7	6 3/14	6 2/7	6 5/14	6 3/7	6 1/2	6 4/7	6 9/14	6 5/7	6 11/14	14
15				5	5 1/15	5 2/15	5 1/5	5 4/15	5 1/3	5 2/5	5 7/15	5 8/15	5 3/5	5 2/3	5 11/15	5 4/5	5 13/15	5 14/15	6	6 1/15	6 2/15	6 1/5	6 4/15	6 1/3	15
16									5.	5 1/16	5 1/8	5 3/16	5 1/4	5 5/16	5 3/8	5 7/16	5 1/2.	5 9/16	5 5/8	5 11/16	5 3/4	5 13/16	5 7/8	5 15/16	16
17.		Height of risers in inches.												5	5 1/17	5 2/17	5 3/17	5 4/17	5 5/17	5 6/17	5 7/17	5 8/17	5 9/17	5 10/17.	17
18																			5	5 1/18	5 1/9	5 1/6	5 2/9	5 5/18	18
19																								5	19
	8'0"	8'1"	8'2"	8'3"	8'4"	8'5"	8'6"	8'7"	8'8"	8'9"	8'10"	8'11"	9'0"	9'1"	9'2"	9'3"	9'4"	9'5"	9'6"	9'7"	9'8"	9'9"	9'10"	9'11"	
11.	8 8/11	8 9/11	8 10/11	9	9 1/11	9 2/11	9 3/11	9 4/11	9 5/11	9 6/11	9 7/11	9 8/11	9 9/11	9 10/11											11.
12	8	8 1/12	8 1/6	8 1/4	8 1/3	8 5/12	8 1/2	8 7/12	8 2/3	8 3/4.	8 5/6	8 11/12	9.												12
13	7 5/13	7 6/13	7 7/13	7 8/13	7 9/13	7 10/13	7 11/13	7 12/13	8	8 1/13	8 2/13	8 3/13	8 4/13	8 5/13	8 6/13	8 7/13	8 8/13	8 9/13	8 10/13	8 11/13	8 12/13	9.			13
14	6 6/7	6 13/14	7	7 1/14	7 1/7	7 3/14	7 2/7	7 5/14	7 3/7	7 1/2	7 4/7	7 9/14	7 5/7	7 11/14	7 6/7	7 13/14	8	8 1/14.	8 1/7	8 3/14	8 2/7	8 5/14	8 3/7	8 1/2	14
15	6 2/5	6 7/15	6 8/15	6 3/5	6 2/3	6 11/15	6 4/5	6 13/15	6 14/15	7	7 1/15	7 2/15	7 1/5	7 4/15	7 1/3	7 2/5	7 7/15	7 8/15	7 3/5	7 2/3	7 11/15	7 4/5	7 13/15	7 14/15	15
16	6	6 1/16	6 1/8	6 3/16	6 1/4	6 5/16	6 3/8	6 7/16	6 1/2	6 9/16	6 5/8	6 11/16	6 3/4	6 13/16	6 7/8	6 15/16	7	7 1/16	7 1/8	7 3/16	7 1/4	7 5/16	7 3/8	7 7/16	16
17	5 11/17	5 12/17	5 13/17	5 14/17	5 15/17	5 16/17	6	6 1/17	6 2/17	6 3/17	6 4/17	6 5/17	6 6/17	6 7/17	6 8/17	6 9/17	6 10/17	6 11/17	6 12/17	6 13/17	6 14/17	6 15/17	6 16/17	7.	17
18	5 1/3.	5 7/18	5 4/9	5 1/2	5 5/9	5 11/18	5 2/3	5 13/18	5 7/9	5 5/6	5 8/9	5 17/18	6	6 1/18	6 1/9	6 1/6	6 2/9	6 5/18	6 1/3	6 7/18	6 4/9	6 1/2	6 5/9	6 11/18	18
19	5 1/19	5 2/19	5 3/19	5 4/19	5 5/19	5 6/19	5 7/19	5 8/19	5 9/19	5 10/19	5 11/19	5 12/19	5 13/19	5 14/19	5 15/19	5 16/19	5 17/19	5 18/19	6.	6 1/19	6 2/19	6 3/19	6 4/19	6 5/19	19
20					5.	5 1/20	5 1/10	5 3/20	5 1/5	5 1/4	5 3/10	5 7/20	5 2/5	5 9/20	5 1/2	5 11/20	5 3/5	5 13/20	5 7/10	5 3/4	5 4/5	5 17/20	5 9/10	5 19/20	20
21										5.	5 1/21	5 2/21	5 1/7	5 4/21	5 5/21	5 2/7	5 1/3	5 8/21	5 3/7	5 10/21	5 11/21	5 4/7	5 13/21	5 2/3	21
22		Height of risers in inches													5.	5 1/22	5 1/11	5 3/22	5 2/11	5 5/22	5 3/11	5 7/22	5 4/11	5 9/22	22
23																				5.	5 1/23	5 2/23	5 3/23	5 4/23	23
	10'0"	10'1"	10'2"	10'3"	10'4"	10'5"	10'6"	10'7"	10'8"	10'9"	10'10"	10'11"	11'0"	11'1"	11'2"	11'3"	11'4"	11'5"	11'6"	11'7"	11'8"	11'9"	11'10"	11'11"	
14	8 4/7	8 9/14	8 5/7	8 11/14	8 6/7	8 13/14	9																		14
15	8	8 1/15	8 2/15	8 1/5	8 4/15	8 1/3	8 2/5	8 7/15	8 8/15	8 3/5	8 2/3	8 11/15	8 4/5	8 13/15	8 14/15	9									15
16	7 1/2	7 9/16	7 5/8	7 11/16	7 3/4	7 13/16	7 7/8	7 15/16	8	8 1/16	8 1/8	8 3/16	8 1/4	8 5/16	8 3/8	8 7/16	8 1/2	8 9/16	8 5/8	8 11/16	8 3/4	8 13/16	8 7/8	8 15/16	16
17	7 1/17	7 2/17	7 3/17	7 4/17	7 5/17	7 6/17	7 7/17	7 8/17	7 9/17	7 10/17	7 11/17	7 12/17	7 13/17	7 14/17	7 15/17	7 16/17	8	8 1/17	8 2/17	8 3/17	8 4/17	8 5/17	8 6/17	8 7/17.	17
18	6 2/3	6 13/18	6 7/9	6 5/6	6 8/9	6 17/18	7	7 1/18	7 1/9	7 1/6	7 2/9	7 5/18	7 1/3	7 7/18	7 4/9	7 1/2	7 5/9	7 11/18	7 2/3	7 13/18	7 7/9	7 5/6	7 8/9	7 17/18	18
19	6 6/19	6 7/19	6 8/19	6 9/19	6 10/19	6 11/19	6 12/19	6 13/19	6 14/19	6 15/19	6 16/19	6 17/19	6 18/19	7	7 1/19	7 2/19	7 3/19	7 4/19	7 5/19	7 6/19	7 7/19	7 8/19	7 9/19	7 10/19	19
20	6	6 1/20	6 1/10	6 3/20	6 1/5	6 1/4	6 3/10	6 7/20	6 2/5	6 9/20	6 1/2	6 11/20	6 3/5	6 13/20	6 7/10	6 3/4	6 4/5	6 17/20	6 9/10	6 19/20	7	7 1/20	7 1/10	7 3/20	20
21	5 5/7	5 16/21	5 17/21	5 6/7	5 19/21	5 20/21	6	6 1/21	6 2/21	6 1/7	6 4/21	6 5/21	6 2/7	6 1/3	6 8/21	6 3/7	6 10/21	6 11/21	6 4/7	6 13/21	6 2/3	6 5/7	6 16/21	6 17/21	21
22	5 5/11	5 1/2.	5 6/11	5 13/22	5 7/11	5 13/22	5 8/11	5 17/22	5 9/11	5 19/22	5 10/11	5 21/22	6.	6 1/22	6 1/11	6 3/22	6 2/11	6 5/22	6 3/11	6 7/22	6 4/11	6 9/22	6 5/11	6 11/22	22
23	5 5/23	5 6/23	5 7/23	5 8/23	5 9/23	5 10/23	5 11/23	5 12/23	5 13/23	5 14/23	5 15/23	5 16/23	5 17/23	5 18/23	5 19/23	5 20/23	5 21/23	5 22/23	6.	6 1/23	6 2/23	6 3/23	6 4/23	6 5/23	23
24	5	5 1/24	5 1/12	5 1/8	5 1/6	5 5/24	5 1/4	5 7/24	5 1/3	5 3/8	5 5/12	5 11/24	5 1/2	5 13/24	5 7/12	5 5/8	5 2/3	5 17/24	5 3/4	5 19/24	5 5/6	5 7/8	5 11/12	5 23/24	24
25						5	5 1/25	5 2/25	5 3/25	5 4/25	5 1/5	5 6/25	5 7/25	5 8/25	5 9/25	5 2/5	5 11/25	5 12/25	5 13/25	5 14/25	5 3/5	5 16/25	5 17/25	5 18/25	25
26		Height of risers in inches									5.	5 1/26	5 1/13	5 3/26	5 2/13	5 5/26	5 3/13	5 7/26	5 4/13	5 9/26	5 5/13	5 11/26	5 6/13	5 1/2	26
27																5.	5 1/27	5 2/27	5 1/9	5 4/27	5 5/27	5 2/9	5 7/27	5 8/27	27
28																					5.	5 1/28	5 1/14	5 3/28	28
	12'0"	12'1"	12'2"	12'3"	12'4"	12'5"	12'6"	12'7"	12'8"	12'9"	12'10"	12'11"	13'0"	13'1"	13'2"	13'3"	13'4"	13'5"	13'6"	13'7"	13'8"	13'9"	13'10"	13'11"	
16	9.																								16
17	8 8/17	8 9/17	8 10/17	8 11/17	8 12/17	8 13/17	8 14/17	8 15/17	8 16/17	9.															17
18	8	8 1/18	8 1/9	8 1/6	8 2/9	8 5/18	8 1/3	8 7/18	8 4/9	8 1/2	8 5/9	8 11/18	8 2/3	8 13/18	8 7/9	8 5/6	8 8/9	8 17/18	9.						18
19	7 11/19	7 12/19	7 13/19	7 14/19	7 15/19	7 16/19	7 17/19	7 18/19	8	8 1/19	8 2/19	8 3/19	8 4/19	8 5/19	8 6/19	8 7/19	8 8/19	8 9/19	8 10/19	8 11/19	8 12/19	8 13/19	8 14/19	8 15/19.	19
20	7 1/5	7 1/4	7 3/10	7 7/20	7 2/5	7 9/20	7 1/2	7 11/20	7 3/5	7 13/20	7 7/10	7 3/4	7 4/5	7 17/20	7 9/10	7 19/20	8	8 1/20	8 1/10	8 3/20	8 1/5	8 1/4	8 3/10	8 7/20	20
21	6 6/7	6 19/21	6 20/21	7	7 1/21	7 2/21	7 1/7	7 4/21	7 5/21	7 2/7	7 1/3	7 8/21	7 3/7	7 10/21	7 11/21	7 4/7	7 13/21	7 2/3	7 5/7	7 16/21	7 17/21	7 6/7	7 19/21	7 20/21	21
22	6 6/11	6 13/22	6 7/11	6 15/22	6 8/11	6 17/22	6 9/11	6 19/22	6 10/11	6 21/22	7	7 1/22	7 1/11	7 3/22	7 2/11	7 5/22	7 3/11	7 7/22	7 4/11	7 9/22	7 5/11	7 1/2	7 6/11	7 13/22	22
23	6 6/23	6 7/23	6 8/23	6 9/23	6 10/23	6 11/23	6 12/23	6 13/23	6 14/23	6 15/23	6 16/23	6 17/23	6 18/23	6 19/23	6 20/23	6 21/23	6 22/23	7	7 1/23	7 2/23	7 3/23	7 4/23	7 5/23	7 6/23	23
24	6	6 1/24	6 1/12	6 1/8	6 1/6	6 5/24	6 1/4	6 7/24	6 1/3	6 3/8	6 5/12	6 11/24	6 1/2	6 13/24	6 7/12	6 5/8	6 2/3	6 17/24	6 3/4	6 19/24	6 5/6	6 7/8	6 11/12	6 23/24	24
25	5 19/25	5 4/5	5 21/25	5 22/25	5 23/25	5 24/25	6.	6 1/25	6 2/25	6 3/25	6 4/25	6 1/5	6 6/25	6 7/25	6 8/25	6 9/25	6 2/5	6 11/25	6 12/25	6 13/25	6 14/25	6 3/5	6 16/25	6 17/25	25
26	5 7/13	5 15/26	5 8/13	5 17/26	5 9/13	5 19/26	5 10/13	5 21/26	5 11/13	5 23/26	5 12/13	5 25/26	6	6 1/26	6 1/13	6 3/26	6 2/13	6 5/26	6 3/13	6 7/26	6 4/13	6 9/26	6 5/13	6 11/26	26
27	5 1/3	5 10/27	5 11/27	5 4/9	5 13/27	5 14/27	5 5/9	5 16/27	5 17/27	5 2/3.	5 19/27	5 20/27	5 7/9	5 22/27	5 23/27	5 8/9	5 25/27	5 26/27	6	6 1/27	6 2/27	6 1/9	6 4/27	6 5/27	27
28	5 1/7	5 5/28	5 3/14	5 1/4	5 2/7	5 9/28	5 5/14	5 11/28	5 3/7	5 13/28	5 1/2	5 15/28	5 4/7	5 17/28	5 9/14	5 19/28	5 5/7	5 3/4	5 11/14	5 23/28	5 6/7	5 25/28	5 13/14	5 27/28	28
29		5	5 1/29	5 2/29	5 3/29	5 4/29	5 5/29	5 6/29	5 7/29	5 8/29	5 9/29	5 10/29	5 11/29	5 12/29	5 13/29	5 14/29	5 15/29	5 16/29	5 17/29	5 18/29	5 19/29	5 20/29	5 21/29	5 22/29	29
30							5	5 1/30	5 1/15	5 1/10	5 2/15	5 1/6	5 1/5	5 7/30	5 4/15	5 3/10	5 1/3	5 11/30	5 2/5	5 13/30	5 7/15	5 1/2	5 8/15	5 17/30	30
31												5	5 1/31	5 2/31	5 3/31	5 4/31	5 5/31	5 6/31	5 7/31	5 8/31	5 9/32	5 10/31	5 11/31	5 12/31	31
32		Height of risers in inches.															5	5 1/32	5 1/16	5 3/32	5 1/8	5 5/32	5 3/16	5 7/32	32
33																						5	5 1/33	5 2/33	33

INFORMATION SHEET : TABLE OF RISERS FOR STAIRS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 18 •

RISERS FOR STAIRS

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THIS week's Sheet is the second of a series of nine dealing in detail with the layout and construction of staircases.

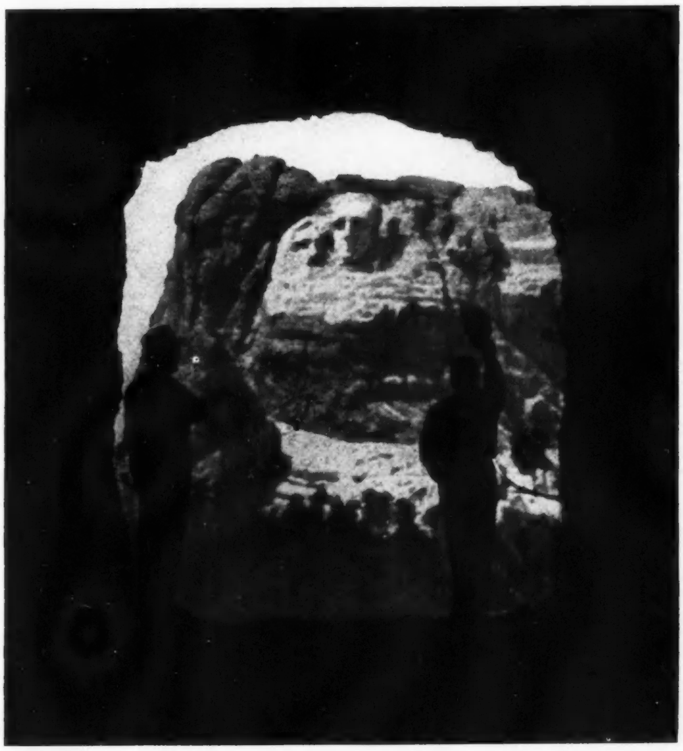
Probably no other in the series conveys more information in so little space. From the table, the heights of individual risers in any number of steps desired in a flight between floor and floor, varying by inches from 6 feet to 13 feet 11 inches, can be read off at a glance. The limiting heights of the risers themselves are 5 inches minimum and 9 inches maximum.

The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes
17. May 10—Stairway Diagrams.

LARGER THAN THE SPHINX

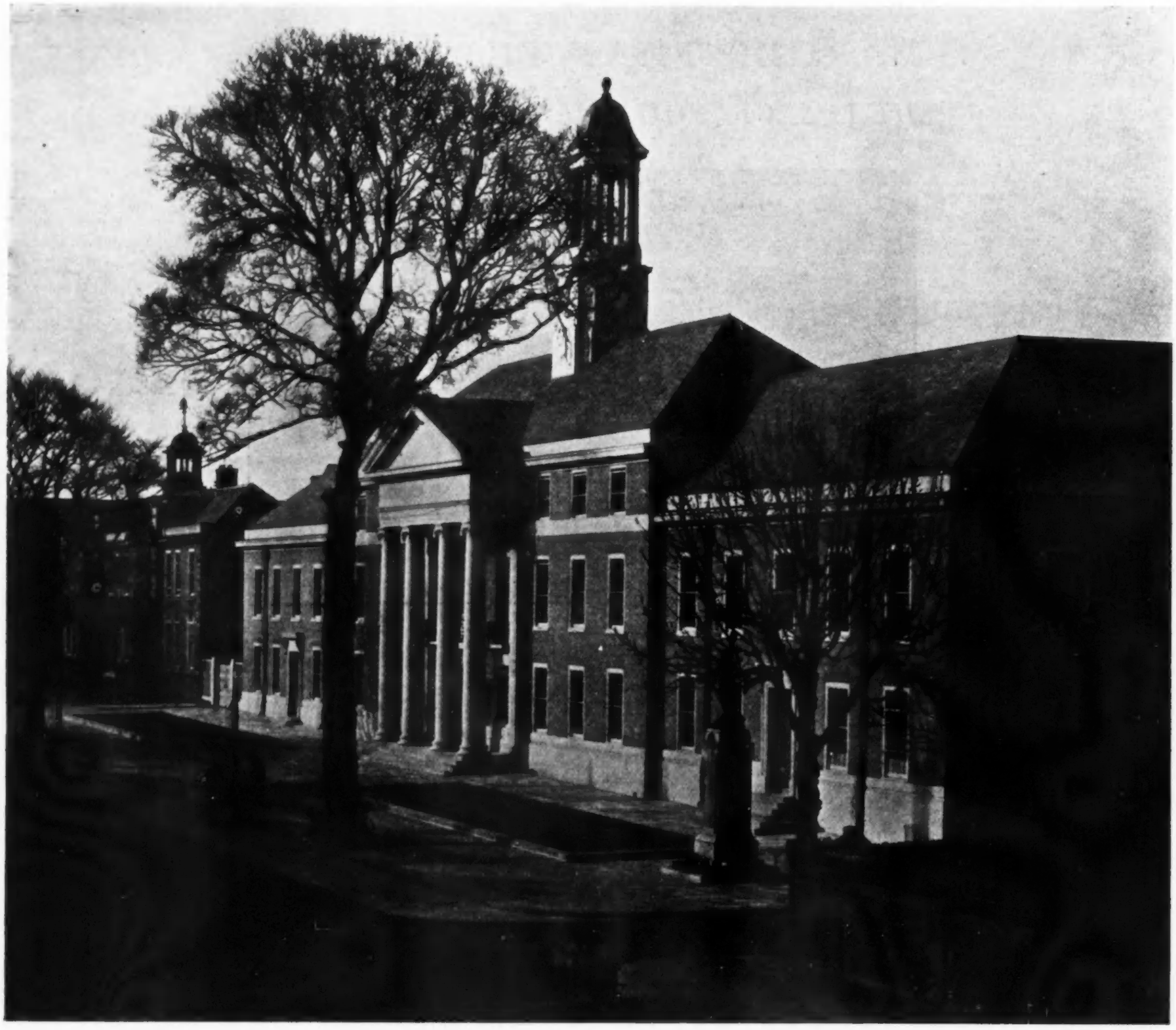
HEADS OF FOUR U.S.A. PRESIDENTS



THIS view shows the memorial to four famous American Presidents which is being carved from the granite face of Mount Rushmore in South Dakota. It is an actual " cut " from a British Paramount News Film which was shown for the first time in London last week.

It is not often that a sculptor has a complete mountain from which to carve his statue, but the American tendency towards megalomania is given full scope here, for, when completed, the monument will be seven-and-a half times larger than the Sphinx, and the nose of George Washington, whose face is one of the most complete at present and is shown in the above photograph, is 24 feet long. The other Presidents whose greatness is thus literally commemorated are " Teddy " Roosevelt, Abraham Lincoln and Thomas Jefferson.

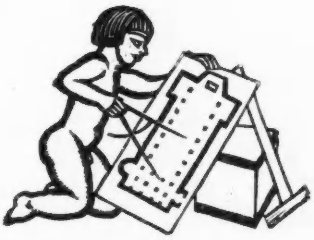
The memorial stands 6,000 feet above sea level, and was designed by an American sculptor, Gutzon Borglum, and dedicated by President Coolidge. It was begun five years ago, and is expected to be finished in another five years' time.



WORTHING TOWN HALL

Designed by C. Cowles-Voysey

On Monday, Prince George opened the new Town Hall, of which the above is a general view of the main east front to Chapel Road; Stoke Abbot Road runs up the side nearest the camera. A portion of the architect's drawing of the main elevation appears on the first page of a Supplement with this issue; on its inner pages are reproduced the ground and first floor plans. Other illustrations are given in the body of this number.



REGISTRATION: DO IT NOW

REGISTRATION is a *fait accompli* after years of struggle. Just before the beginning of the year the Register was opened for enrolment, leaving a period of twelve months before it closes finally and irrevocably on December 31, 1933.

After this date no architect who is not already on the Register will be able to get on, or to call himself "Registered Architect," unless he passes an examination approved by the Statutory Board of Architectural Education, an examination the terms of which, as so far approved, were announced recently in this JOURNAL.

The business of enrolling architects now practising, or going through the motions of practising, their profession, is proceeding, and up to date some 4,000 out of a possible total of 12,000 have applied for registration, 3,000 being members of the R.I.B.A. and its Allied Societies.

Now, although enrolment is going forward steadily, there is a definite danger that many of the 7,000 or 8,000 architects who have made no definite move in the matter will wake up to find themselves left outside in January, 1934, and raise a shocking hullabaloo about the way things go on and are managed.

Because Time quite remorselessly "goes on," not even yielding his pace for the last day or hour, this reminder comes NOW, while there yet remain well over half the months of the year in which to take action.

Note also that Acts of Parliament are like Time in this quality of remorselessness.

On the 31st of December, 1933, the Register closes.

After that date no amount of clamour will open it again, for an Act cannot be stretched or varied to suit the convenience of the apathetic, and those who delay too long will have to suffer the pains of examination if they are to overcome the disappointment of being left outside the place where so many of their fellows sit ensconced.

All this we say on a note of warning and in the name of urgency and practical expediency. But enrolment on the Register serves more than personal interest.

It is not a trade union. No one really expects that by calling oneself Chartered and Registered Architect instead of Chartered Architect, or simply, Architect, one will attract a queue of smiling clients. There is, of course, the expectation that the establishment of registration will give a clearer indication than formerly of where are to be found men capable of architectural trust; but of far greater importance to us all is the knowledge that, as time goes on, the practice of architecture will be almost entirely in the hands of properly trained men, and that in measure as the idea of registration penetrates the common intelligence, the increasing supply of trained men will find a widening sphere of practice.

We are all agreed that at the bottom of most of our difficulties today lies ignorance, shared, but not equally, between the public and architects themselves. In the name of architecture a vast, nearly criminal traffic in bad building is carried on by a host of people lying well outside the sphere of registration, damaging the value of what is well done through ignorance of the importance of doing anything well, or of what constitutes well-doing.

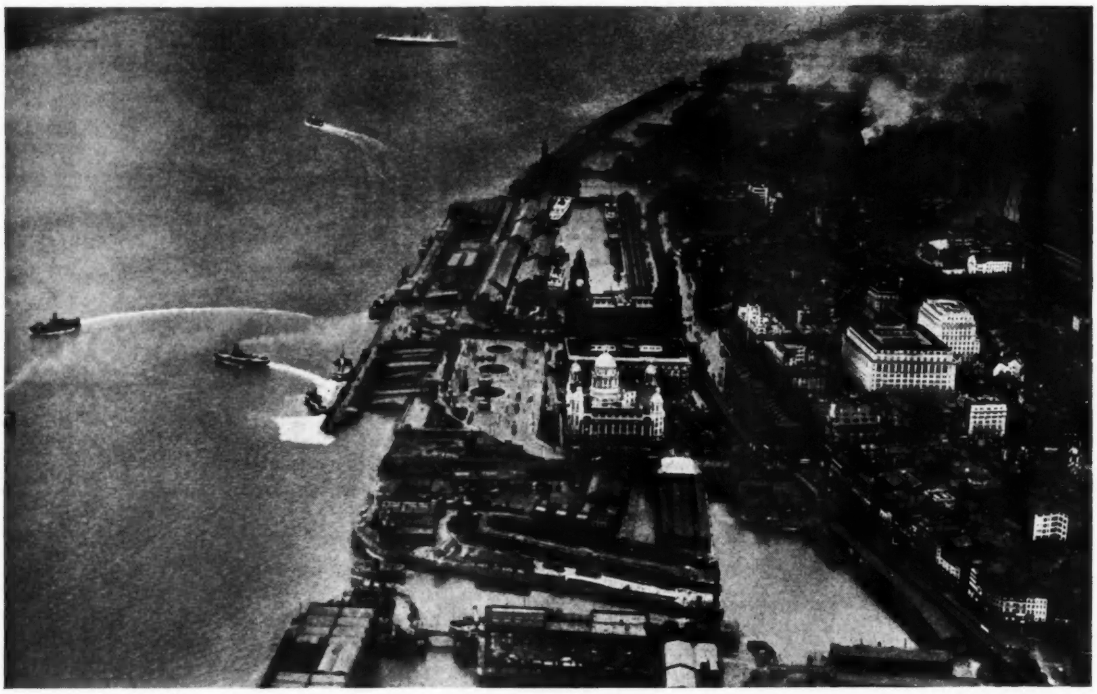
That we should continue to lay out our towns and build the greater proportion of building, lacking the elementary capacities for planning or the desire for beauty, is a waste which no country can stand indefinitely. Look about the world and you will see how many nations have recognized this need for regulating and controlling the character of building; England lagging behind her overseas territories many of which have better machinery in operation. The best intentions of town planning are frustrated, and regulations from the centre seem to be in vain so long as the mass of building that lines the streets is undisciplined and ignorant, the work of men who are architects for profit only, and obey no higher laws.

Registration, therefore, if it is to be an instrument for raising the level of architectural practice over the whole sphere of building, must carry the names of every reputable and competent architect working today, and those of every member of the Institute as a matter of course. Practically all members of the Council and Standing Committees are now on the register, and an exceedingly good lead has been given from the centre; but even so there are still two-thirds of the profession who have taken no steps to get on, and half the time has passed.

It should be noted that application can be addressed to the Secretary, E. J. Haynes, at 18 Abingdon Street, S.W1, and that the fee for Registration is 6s. 8d.

For this there remains what is left of the year, with the dog-days of summer intervening; and on the last day the door closes and registration as a completed system is put into operation.

The 31st of December, 1933.



An aerial view of Merseyside, Liverpool, "one of the gateways of England."

NOTES & TOPICS

ENGLAND FROM THE GANGWAY

WITHIN a week I have been to Southampton and Liverpool: two ports that are responsible for a large number of foreigners' first impressions of England.

*

Southampton made me wonder whether that responsibility was recognized and whether it was accepted as a civic responsibility. There are spectacular engineering works in progress at Southampton: the draining of vast areas of waste and water-logged land, the building of great docks.

*

But the order and the spacious dignity that come from planning stop at the docks. Southampton itself only gives an impression of huddled squalor.

*

This is one of the gateways of England, approached by a noble road of water. So is Liverpool.

*

Seen across the Mersey from Seacombe or Woodside Ferry, Liverpool is growing a fine skyline. Already the Cathedral is uprising to a splendid dominance, and when its tower is finished, and its exotic neighbour, the Metropolitan Cathedral, has a dome, Liverpool will have more architectural interest belonging to the twentieth century than perhaps any other city in the country.

When the Mersey tunnel is opened, there will be an opportunity for some imposing planning. The main Liverpool end comes above ground opposite St. George's Hall. If only the city fathers will have the courage to slash right and left into the mean buildings that flank the tunnel mouth, and create a great open space below St. George's Hall, and abolish the chaotic traffic tangle that is now woven about a clutter of refuge islands, Liverpool's core of fine public buildings will acquire an unforgettable majesty.

*

The main tunnel mouth in Birkenhead is behind Hamilton Square, beside that dismal structure, the Birkenhead Market. Hamilton Square is a fine piece of planning. The emergence of the tunnel behind it suggests that something more than the casual demolition of buildings that "happen to be in the way" is indicated. Is there a plan for making the tunnel approach worthy of Hamilton Square?

THE ARCHITECTS' JOURNAL THURSDAY

TO BE PUBLISHING DAY

AS announced in our last issue, THE ARCHITECTS' JOURNAL *will in future be published on the Thursday of each week instead of on the Wednesday, as heretofore. Next week's issue will therefore not be on sale at the bookstalls until Thursday, June 1, and subscribers' copies will not reach them until the first post on that day.*

I have a fear (not wholly fantastic) that near one of the tunnel mouths somebody will open a café and call it: Ye Olde Tunnelle Gate-house.

*

This week's super-pseudo antique is: *Ye Olde Soda Fountaine.*

*

GAS—INSIDE AND OUT

A suggestion has been made (in Scotland) for using the outside of a gasometer for advertising. Years ago Clough Williams-Ellis, writing about gasometers, urged us to "think what might be done . . . if the strange fat shape were accepted and enjoyed and taken as the basis of a design."

*

I hope that somebody will do some pretty quick thinking (followed by preventive action) about the possibilities of a gasometer as the basis of an advertisement. The shape would doubtless be seized on for boosting appropriate products: reducing belts, for instance, or abnormally nutritive buns.

*

A BIG CHANCE FOR THE COWS

I make no apology for returning to this enthralling subject. Chance's cows mean as much to me as Pilkington's elephants. Here is some hot news about them.

A member of the firm, who signs himself *Austin*, sends me a letter in which he says the cows "become quite excited when they hear a Chance diaphone with a note based on a bull moose's call" being tested at works.

*

Poor brutes! And *Arthur* denied their existence.

*

SEPOC ENIW EGDOL

The same correspondent dead heats with *Envious* and *V. L.* in last week's easy competition. All three ingeniously read the words at the head of this note as *Cope's Wine Lodge*, and the "operative word" *nainurfluw* as *Wulfrunian.* It looks as though the prize, half a bottle of yksihw, will have to be divided between them.

*

WULFRUNIAN

Wulfrunian means of or pertaining to Wolverhampton. It is a word that seems to me to have possibilities, and I shall try to get it taken up. "Charming but just the teeniest, teeniest bit wulfrunian," or "Oh, absolutely wulfrunian!" will shortly (I hope) be on the tongue of every bright young person.

*

Not that Wolverhampton should be made fun of—let me urge those who don't know it to go to Cope's Wine Lodge (early nineteenth century) and then tour the city. I say no more now. I shall return to Wolverhampton and to St. John's Church next week.

*

FURTHER COMPETITIONS

There are no further competitions.

*

SUCCESS OF THE FIRST *F.T.O.* CARPET COMPETITION

Nothing to speak of; at least, not above a whisper. For sheer badness, lack of style, coherence, reticence of anything, in fact, but compromise, dullness and jazz vulgarity, the winning designs in this very praiseworthy competition could not be matched outside the carpet departments of the cheap retail stores.

*

I take it that the idea of *The Furnishing Trades Organiser* was to discover new designers of merit. Why, then, set up a jury mainly composed of retailers who are not artists to judge the work of designers? So long as such competitions are to be judged from the point of view of the man-in-the-street, so long may we expect them to provide us with the worst designs, since no self-respecting designer could possibly design on the basis of what he thought a carpet salesman would like.

*

THE NEXT R.I.B.A. PRESIDENT

As there is no other nomination for Presidency of the R.I.B.A., I think it may be taken for granted that Sir Giles Gilbert Scott will follow, in a few weeks' time, Sir Raymond Unwin, who has laboured unceasingly and unselfishly for the good of the profession.

*

Sir Giles will be an admirable President for the Centenary Year. His dignity, his high reputation as an architect, his happy manner, his power of quiet speech—all are valuable qualities for the head of the architectural profession.

ASTRAGAL

THE ARCHITECTS' DIARY

Wednesday, May 24

*ROYAL ACADEMY, Burlington House, Piccadilly, W.*1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*1. Exhibition of photographs, etc., depicting the progress of air travel. Until May 25. 10 a.m. to 10 p.m. 10 *a.m.*

MUNICIPAL SCHOOLS OF ARTS AND CRAFTS, Birmingham. At the Museum and Art Gallery. Exhibition of students' work. Last day. 10 a.m. to 5 p.m. 10 *a.m.*

ARCHITECTURE CLUB. Twenty-second annual dinner. *At the Savoy Hotel, W.C.*2. 7.15 for 7.30 p.m. 7.15 *p.m.*

C.P.R.E. Annual General Meeting. *At the R.I.B.A.*, 9 *Conduit Street, W.*1. The Rt. Hon. W. G. A. Ormsby-Gore, M.P., will be the principal speaker. 3 *p.m.*

Thursday, May 25

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.*1. Annual General Meeting. 6.30 *p.m.*

SOCIETY FOR CULTURAL RELATIONS BETWEEN THE PEOPLES OF THE BRITISH COMMONWEALTH AND THE U.S.S.R. At the London School of Hygiene and Tropical Medicine, W.C. "Ancient Church Architecture from the White Sea to the Caucasus." By David R. Buxton. 8 *p.m.*

Friday, May 26

*TOWN PLANNING INSTITUTE. At Caxton Hall, Caxton Street, S.W.*1. "Recent American Town Planning Developments and their Bearing on the English Problem under the new Act." By C. R. Ashbee, M.A. 6 *p.m.*

Saturday, May 27

Sunrise 4.53 a.m. Sunset 9.1 p.m.

*L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.*1. Annual Exhibition. Until Saturday June 24. 10 a.m. to 8 p.m. (Saturdays: 10 a.m. to 12 noon.) 10 *a.m.*

Monday, May 29

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*1. "The Modern Architecture of Hilversum, Holland." By W. M. Dudok. Also, exhibition of views of new buildings in Hilversum. Until June 24. 10 a.m. to 10 p.m. 10 *a.m.*

INSTITUTION OF ELECTRICAL ENGINEERS. At Bath. Summer meeting. Until June 2.

Tuesday, May 30

*LONDON SOCIETY, Lancaster House, St. James's, S.W.*1. Evening Assembly to celebrate twenty-first anniversary of the founding of the Society. 8.45 *p.m.*

INSTITUTION OF GAS ENGINEERS. At Liverpool. Annual General Meeting. Until June 2.

NEWS

●

POINTS FROM THIS ISSUE

Architects MUST *register before 1934—or submit to examination* 675

Wulfrunian 677

The risks that æsthetic hospitals are going to be the architect's blind alley are entirely negligible 681

Under the new Housing Act working-class housing will come to a complete standstill 697

The new plastics industry represents a turnover of £20,000,000 701

The increased demand for bricks 702

Numbers and heights of stairs at a glance................*Information Sheet*

●

THE MAGNET OF LONDON

Greater London is a magnet drawing to itself industries and population. Sir Raymond Unwin, in the second report of the Greater London Regional Planning Committee, just issued, insists on the need for more control. Haphazard development wastefully permitting residential areas to be spoiled by the invasion of industry must be stopped.

Sir Raymond envisaged the wise planning in the future of a London of nearly 2,000 square miles, the allocation of suitable sites to industry, the formation of a green belt, the classification of new roads, the laying out of self-contained satellite communities. In short, the development of the 14,000 square miles of Greater London, which still remained unbuilt on, would not be sporadic and speculative.

THE UGLY FACTS

With Sir Raymond's advice most readers of the JOURNAL will be in agreement, but the facts cannot be overlooked. The Committee, of which Sir Banister Fletcher is Chairman, is still only advisory. Its financial resources have recently been cut down. It is regarded with suspicion by most of the 135 local authorities. Commercial men so far are untouched by the appeal of the regional planners, in this respect differing from their American counterparts. In theory, everyone wants a way out of the present muddle, but, in practice, architects and builders are already finding how town planning is stopping many a building project. The unfortunate discrepancy in the figures produced with regard to the proposed new building in Parliament Square, which the L.C.C. Town Planning Committee has refused to sanction, and the silence of Lord Haddo, are doing considerable harm to the cause of planning. As Dr. I. G. Gibbon, of the Ministry of Health, recently said, the economic aspect of planning needs to be more studied.

> *The present advance in building activity is undoubtedly due, at least in part, to the efforts of the Special Committee for Public Relations of the Building Industries National Council:—(1) The Committee are doing all in their power to forward the policy of slum clearance. They are in touch with the chief local authorities, offering co-operation in case of difficulty in preparing a programme. (2) The Committee is also in touch with the building societies with a view to pressing the "Build Now" scheme. (3) The Committee continues to urge that public works should be undertaken as a means of national rehabilitation.*
>
> *These efforts, made by the body constituted to speak for the building industry, must continue to be fully supported.*
>
> *Subscriptions to the fund should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.*

SLUMS

The Prince of Wales's speech to the Association of Municipal Corporations on Wednesday last was a timely supplement to the appeal issued by the Archbishops earlier in the week for an active campaign for the abolition of the slums. The Prince said:

> Let public opinion awaken. Great risks require great energy, vision and determination. Let us put forward a great national effort irrespective of party or of politics. Let our age, our generation, be remembered as the one in which we swept away this blot that disgraces our national life. Let us build a new Britain and provide houses worthy of the dignity and greatness of our race.

THE EARL OF RADNOR

The Earl of Radnor, who has just been appointed by the Prince of Wales Lord Warden of the Stanneries in Cornwall and Devon, and Rider and Master Forester of Dartmoor, is one of the most energetic of our younger peers. In addition to this work for the Duchy of Cornwall, he is a Director of the Southern Railway, and a regular attendant at the House of Commons. He is particularly interested in architecture in relation to working-class houses. He has studied with much care the plans prepared by Mr. De Soissons for houses on the Prince of Wales's estate in South London. As Lord Warden he is the head of the Prince of Wales's Council, which administers not only the London property, but the tin mines in Cornwall and Devon, and also Dartmoor.

WAKEFIELD'S NEW BRIDGE

Wakefield's new £65,000 bridge over the River Calder is to be officially opened by the Mayor of Wakefield (Alderman W. Emmett) on Friday next, May 26.

TWO NEW ACTS

The Housing (Financial Provisions) Bill, and the Housing (Financial Provisions) (Scotland) Bill, have received the Royal Assent.

ADELPHI ESTATES BILL

The Select Committee of the House of Lords concluded, last week, their consideration of the Adelphi Estate Bill. They have decided to let the Bill proceed, stipulating that any building which might be built on the estate should not exceed the height of the Savoy Hotel.

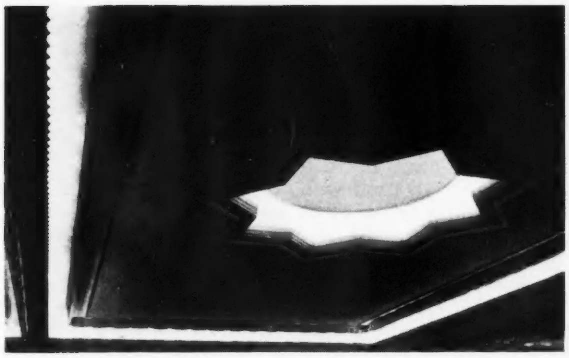
UNEMPLOYMENT IN THE BUILDING TRADES

In the House of Commons last week Sir Henry Betterton, the Minister of Labour, referring to the unemployment figures, said that there had been a marked improvement in the building trades. During the last four months there had been a diminution of unemployed persons in those trades by no fewer than 124,000. Other parliamentary news appears on page 701.

A GOVERNMENT REPORT

The Building Industries National Council is working quietly and steadily on a number of problems, but according to the Preliminary Reports recently published by the Government as a result of the Census of Production taken in 1930, there is good reason for closer cross-examination. For the facts as revealed in these Reports are not too complimentary to the Building Industry. In the majority of instances there has been a steady increase in the introduction of labour-saving machinery, but in building, between the years 1924 and 1930, there has been an actual decrease of 2 per cent. in horsepower used to save the muscles and the brawn of the building trade operatives. Further, the output in the associated industries, such as the manufacture of bricks, pottery and glass, has also decreased during the period between the taking of the Census in 1924 and six years later in 1930. The decrease of net output per head was from £190 to £170.

The report also states the facts in another way. In 1930, 175,000 workers employed in the chemical industries produced £70,000,000 worth of chemicals, whereas 175,000 workers in the same year only produced £31,000,000 worth of bricks, pottery and glass. There are, of course, various reasons to account for these discrepancies, and it is hoped that the Building Industry Council of Review and kindred organizations will look into the whole question. At present, however, students of the Census of Production are of the opinion that the Building Industry has no reason to be unduly complacent.



A ceiling lighting fitting in the entrance hall of the Co-operative Wholesale Society's London Branch. See also pages 691–697.

ARCHITECTS' BENEVOLENT SOCIETY

At the annual general meeting of the above Society, the election of Council for the year of office 1933–34 resulted as follows :

President : The President of the R.I.B.A. ; Vice-Presidents: Messrs. Walter Tapper, A.R.A., F.S.A., F.R.I.B.A., H. S. E. Vanderpant, Hon. A.R.I.B.A. ; Ordinary Members : Messrs. Charles Woodward (A.) ; L. S. Sullivan (F.) ; C. E. Elcock (F.) ; S. Phillips Dales (F.) ; R. Dircks (Hon. A.R.I.B.A.); Maxwell Ayrton (F.); C. McArthur Butler (L.) ; J. Alan Slater, M.A.CANTAB. (F.) ; A. Saxon Snell (F.) ; E. Stanley Hall, M.A.OXON. (F.) ; A. H. Moberly, M.A.CANTAB. (F.) ; Sydney D. Kitson, M.A.CANTAB., F.S.A. (F.) ; Michael Tapper, M.C. (A). ; R. E. Enthoven (F.), Arthur Keen (F.) ; Francis Jones (F.) (representing the Manchester Society) ; C. M. Hadfield (F.) (representing the Sheffield, South Yorkshire and District Society) ; Ingalton Sanders (F.) (representing the Hampshire Society) ; C. Lovett Gill (F.) (representing the Architectural Association) ; Arthur Crow (F.) (representing the London Society) ; C. McLachlan (A.) (representing the Association of Architects, Surveyors, and Technical Assistants) ; and E. Hadden Parkes (F.) (representing the Mount Pleasant Artists' Rest Home).

Honorary Treasurer : Mr. Maurice E. Webb, D.S.O., M.C. (F.). Hon. Secretary : Sir Charles Nicholson, Bart., M.A.OXON. (F.). Honorary Auditors : Messrs. Charles Woodward (A.) and H. S. E. Vanderpant (Hon. A.R.I.B.A.).

A NEW JOURNAL

Today, May 24, the first number of a new weekly illustrated paper, *New Britain*, will appear under the editorship of C. B. Purdom. Its aim, programme and policy are disclosed in its title—the building of a New Britain.

New Britain will be concerned not only with current politics and economics and world affairs, but also with the arts and entertainments, and with books and travel. It will deal with them all from a central sociological standpoint.

Following are some extracts from a leaflet announcing the publication of the new paper :—

> When man's inventive genius is employed for constructive purposes only, he will become more and more free not only from the necessity of manual labour, but from the monotonous work of guiding the machines he has invented. This opens out a prospect of leisure such as has hardly been conceived of, and those energies which have hitherto been directed towards the struggle for existence must be employed and directed by sound education and wise guidance.
>
> Then man will know the joy of extending knowledge for its own sake. He will no longer need to study science solely for the purpose of improving his conditions, and will then recognize that those who devote themselves to pure science are enlarging the common understanding of life.
>
> The arts will then become socialized not only in their application as crafts, but as interpretations of man's common experience.
>
> When housing, health, education, in its widest sense, and true religion, have supplied standards of thought and conduct, recreation and entertainment will no longer be a frenzied attempt to escape from uncongenial conditions.

NORTHERN ARCHITECTURAL ASSOCIATION

Mr. W. Milburn (Jnr.), F.R.I.B.A., B.SC., T.D., has been elected president of the Northern Architectural Association in succession to Mr. H. L. Hicks, F.R.I.B.A. Mr. F. A. Child, A.R.I.B.A., has also been elected hon. secretary in place of Mr. R. Norman MacKellar, A.R.I.B.A., who has retired from this office, which he had held for six years.

Other elections included the following:

Vice-presidents : Messrs. H. Oswald, J.P., L.R.I.B.A., G. H. Gray, F.R.I.B.A., and H. E. Ayris, L.R.I.B.A. ; hon. treasurer, Mr. R. Burns Dick, F.R.I.B.A. ; hon. librarian, Mr. G. E. Charlewood, F.R.I.B.A. ; Members of Council : Messrs. G. Talbot Brown, A.R.I.B.A., C. A. Harding, F.R.I.B.A., DIP. ARCH. (Glasgow), S. W. Milburn, M.C., F.R.I.B.A., W. W. Tasker, F.R.I.B.A., R. N. MacKellar, DIP. ARCH. (Glasgow), A.R.I.B.A., and R. Mauchlen, M.C., F.R.I.B.A. ; Associate Members of Council : Messrs. T. J. Cahill, B.A., J. Logan, A.R.I.B.A. ; and S. Brinton, L.R.I.B.A.

PUTNEY BRIDGE WIDENING

The result of the L.C.C.'s application for a portion of All Saints' Churchyard, Fulham, to complete the scheme of street and bridge widening at Putney Bridge will be announced by the Chancellor of the Consistory Court (which has been sitting in the Chapel of St. Michael and St. George in St. Paul's Cathedral) on Saturday next.

LONDON SOCIETY

At the annual meeting of the London Society, held last week, the officers and council were re-elected.

WOLVERHAMPTON'S SECOND OLDEST CHURCH

Last week we referred to the fact that St. John's Church, Wolverhampton, is in an extremely dangerous condition, and must, if it is to be saved, be repaired at once. Mr. Bertram Butler has stated that the restoration scheme would entail an expenditure of £2,000 within the next two years, and a total of £5,000 in ten years.

£10,000,000 FOR HOUSES TO LET

It is announced that the directors of the Halifax Building Society have decided to co-operate with the Government in the Housing (Financial Provisions) Act, 1933, by granting loans under the Act to the extent of £10,000,000 during the next two years.

R. I. B. A.

MONDAY'S LECTURE

At the R.I.B.A. on Monday night, Mr. Geoffrey Webb read a paper on "The Architectural Antecedents of Sir Christopher Wren." He pointed out that "Wren was not born in an architectural vacuum"; that "there existed in the earlier years both a monumental and an established domestic manner," and, beginning with Inigo Jones, he discussed the work and style of the important architects of the Renaissance in England who preceded Wren. He also spoke of the work of the Commission on London Buildings of 1618 and 1620, which concerned itself with "the energetic promotion of brick as a building material instead of timber, and an endeavour to improve the quality of brickwork by standardizing sizes." It had, therefore, "a very considerable influence on English architecture and certainly contributed to the improvement in the qualities of brickwork, so marked as to amount almost to a technical revolution, that came about during the first half of the seventeenth century."

FINAL EXAMINATION

Under the terms of the Scheme agreed upon between the R.I.B.A. and the Royal Australian Institute of Architects, whereby the latter acts as the authority for Architectural Education and Examinations in Australia, with the exception of Western Australia, the School of Architecture of the Sydney Technical College has been recognized for exemption from the R.I.B.A. Final Examination.

REGISTRATION

Now that the Registration Act is in force, the Council of the Institute have been asked to give advice with regard to the best way to use the title "Registered Architect" by members of the R.I.B.A., who have been placed on the Register, and who already have the right to use the designation "Chartered Architect."

The Council recommend that members of the R.I.B.A. who have been registered should use the designation "Chartered and Registered Architect."

THE ARTHUR CATES PRIZE

The Board of Architectural Education wish to draw special attention to the Arthur Cates Prize, a Certificate and the sum of £50.

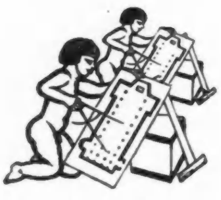
This year the Prize is offered for the promotion of Architecture more especially in relation to the application of geometry to vaulting, stability of edifice and design, coupled with actual measurement and delineation, both geometrical and pictorial, of appropriate examples in Great Britain or foreign countries.

A person is eligible to compete for the Prize who has either passed the Final Examination of the R.I.B.A. in one examination only or who has obtained, by attendance at one of the Schools of Architecture approved by the Institute, a Diploma exempting him from the said examination.

It is hoped that there will be a keen competition for the Prize this year.

Full particulars are given in the R.I.B.A. Prizes and Studentships Pamphlet, which may be obtained from the R.I.B.A., price 1s. 2d., inclusive of postage. The closing date for the submission of works in the competition is November 30, 1933.

COMPETITION NEWS



HORNSEY TOWN HALL

The second part of "Iodos's" review of the Hornsey Town Hall competition has been postponed until after the assessor has supplied answers to competitors' questions.

Surbiton Hospital Competition

Proposed Hospital at Surbiton. Assessor: C. E. Elcock, F.R.I.B.A. Premiums: £120, £75, £50 and £25. Sending-in day: September 21, 1933. Conditions from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton.

Hospital planning probably represents the architect's most important contribution to contemporary construction. During the last few years, hospitals of gigantic dimensions have been the subject of competitions, those at Cardiff and Birmingham ranking as very important additions to hospital practice.

This competition, the conditions of which have been recently announced, is on a much smaller scale, serving rather a locality than a city, but inasmuch as it is to contain within it accommodation and equipment for dealing with every case, it is not incomparable to one of the greater London hospitals. The solution of the problem presented will require as great an exercise of skill as would a larger type of scheme.

The site, plan of which is reproduced, is irregular on its northern boundaries and faces directly south-west. It has a small eastern frontage to a roadway, and access from the north. It is practically level, and unobstructed over the greater part of it. To the north-east there stands Hill Manor, of which the site was originally the gardens, a small section of which, lying to the north-west of the house, is to be retained in the scheme. A small lodge gate on the eastern boundary is also to remain as the lodge to the hospital. The Assessor suggests that the main public approach to the hospital should be from the east end of the site, with a back entrance for goods on the north-western corner. He further suggests that in order to keep the patients' side of the hospital undisturbed by traffic, the approach road should pass along the north to the main entrance for administrative purposes. The possibility of future extension of wards and nurses' home should not be forgotten, although at present no proposals for extension are being considered.

Turning to the hospital itself, the first important note concerns the general design, which it is suggested should be of a single story, with accommodation for the matron and domestic staff. The conditions suggest a grouping of the hospital units into four main sections :—

(*a*) The Wards themselves—Male and Female, Surgical, Children's and Maternity.

(*b*) The Operating, X-Ray and Casualty Departments.

(*c*) The Administrative Offices.

(*d*) The Nurses' Home.

This latter is to be detached from the main circulation. The maternity ward is to be in some way semi-detached, so that, if necessary, it could be omitted without damaging the administration, and, finally, the children's unit is to be administered from the female wards, though requiring some separate accommodation.

The very important Clause 31, *Construction and Materials*, should be quoted in full :—

"So far as possible, consistent with due economy of initial cost and maintenance, the buildings should be of fire-resisting materials, and competitors are left entirely free as to design, the main idea being to provide a scientific 'Health House' which will rely for its artistic effect on its good scale and proportion."

This is qualified by a note which is printed in heavy type, and is as follows :—

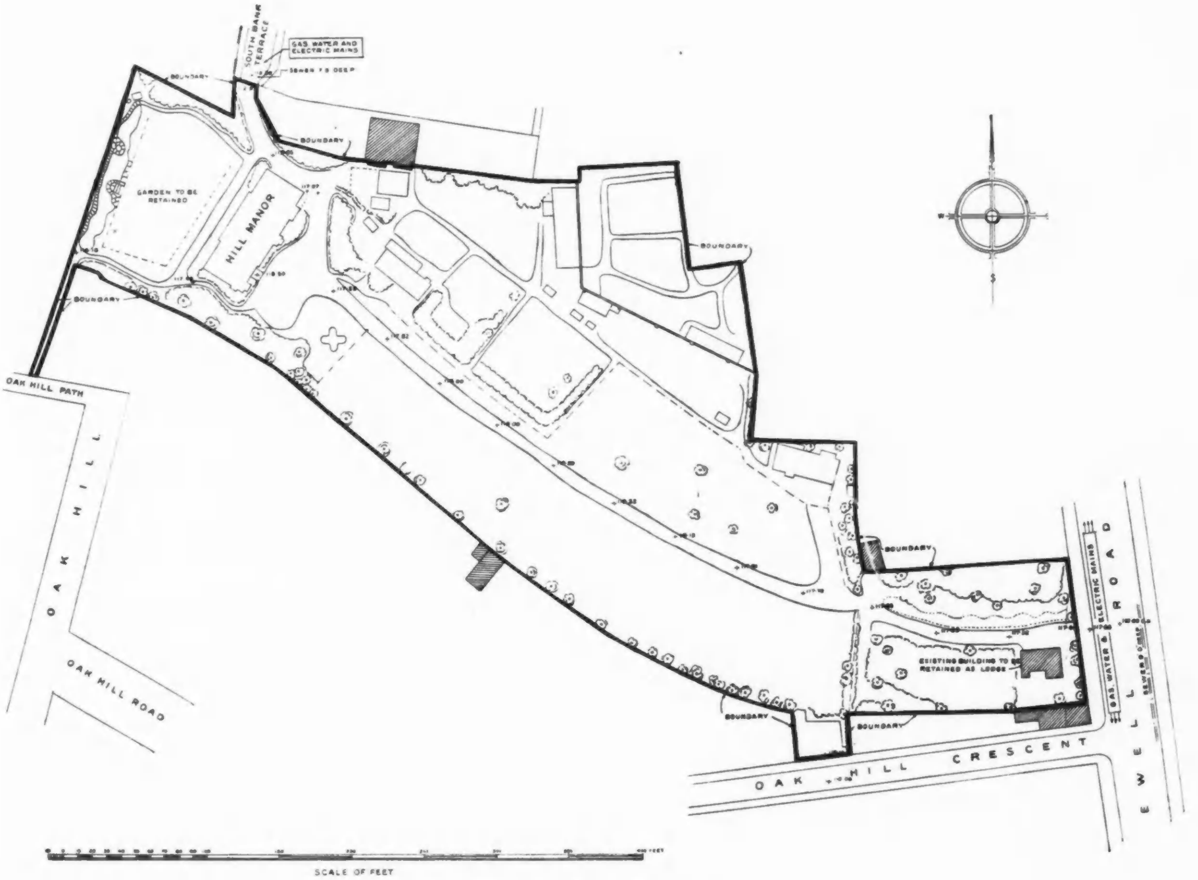
"Competitors should note that great importance would be attached to economy in capital outlay, combined with economy in administration costs."

Thank goodness these two admonitions to competitors are no longer incompatible one with another! They are indeed indications which will be only too eagerly seized by competitors, no longer left in any manner of doubt as to what is required of them.

Turning to the competition problem, one notes with peculiar satisfaction that the attention of competitors is particularly drawn to the "veranda" type of ward, illustrated in the Report of the Orientation Sub-Committee of the R.I.B.A. This ward type employs a skeleton framework of large folding windows on either side, so that when windows are fully opened a ward only 20 ft. wide and unobstructed on the south by any sanitary block or staircase tower, is in effect a veranda with controlled lighting and circulation.

The R.I.B.A. Report shows beds grouped in sets of four and lined along the long axis of the ward, though this is not insisted upon by the conditions of this competition, nor is there complete unanimity on the point. As though the Report were not enough, the Assessor has still further underlined the necessity of the avoidance of heavy brick piers between the windows, and nobody can say they have not been warned. What with this, the stress upon economy in capital and administration costs, and the use of that very good term "Health House," this competition opens under the best of auspices. The usual note to competitors to avoid

SURBITON HOSPITAL COMPETITION



The Site Plan.

wasting their time on elaborate drawings and boring reports is given again with greater emphasis, even to the extent of suggesting four headings under which the Report should fall, and detailing the nature of the estimate required, in a thoroughly sensible manner. There appears to be an error in the amount of the cube foot rate.

It is not unusually a matter of doubtful value, and in any case of extraordinary difficulty, to analyse in any hopeful way the terms of the programme for a scheme of any complication. It will be obvious from the first perusal of the conditions that various sections group themselves into functional units; that the entrances are fairly clearly defined, that the power house will be placed certainly on the south west border, and that the main Hospital itself will occupy the space between Hill Manor and the final closing in of the site towards the east. Further than this no commentator should go, except in such a general way as will not encourage competitors to one line of thought.

From inspection of earlier competitions, it is obvious that more than in any other problem presented, the functional, the machinery side, dictates the main lines; this, and the all-important question of ward-orientation. It is as though the architect were a member of the General Staff, directing a firing line towards the enemy, while at the same time responsible for the intricate machinery, for supplying the front line with all the necessities of life, and its opposite—warfare. The siting of wards within the limitations of these boundaries is the matter for first consideration, allowing of no compromise. But following from this it is the exact planning of the circulation of administration which converts the wards into such a hospital as will fulfil the conditions of economy so strongly imposed. And one realizes that the circulation is complex to a degree that involves the passage, not only of all sorts of people, staff, patients and public, but of food, laundry and a host of other things. At the centre of these is the administration, gathering to itself the life of the hospital.

Turning back once again to Clause 31, one is tempted to enlarge upon the æsthetic outcome of designing a "Health House." yet in fact there is little really helpful to be said where so much is experimental within rigorous conditions of cost. It is enough today to mention a good scale proportion, meaning that we no longer rely to any extent at all upon decoration, the last Georgian hospital depriving us of even the last hold upon our resources of emotion evoked by earlier styles of building. We are in fact up against it here. and will have to take our chances of using a trained sense of order and proportion in the arrangement of new forms and a novel system of lines.

So far as recent competitions and one or two completed hospitals can serve to reassure us, the risks that æsthetic hospitals are going to be the architect's blind alley are entirely negligible. In actual fact the arrangement in pure design, untrammelled by values of mixed association, are our most important hostages to fortune.

LIST OF REFERENCES TO BACK NUMBERS OF THIS JOURNAL

Coventry Infectious Diseases Hospital; winner, Stanley Atkinson, May 27, 1931.

Meanwood Hall, Leeds; winner, H. Carter-Pegg, August 1, 1928.

New Hospital Centre, Birmingham; winners, Lanchester and Lodge, January 29, 1930, February 5, 12, 1930.

Freemasons' Hospital; winner, Sir J. Burnet, Tait and Lorne, January 1, 1930.

Ardee Mental Hospital; winner, Henry T. Wright, September 18, 1929.

Harrogate Infirmary; winners, Elcock and Sutcliffe, October 15, 1924.

Wolverhampton Hospital; winners, Elcock and Sutcliffe, October 21, 1925.

Davyhulme Hospital; winners, Elcock and Sutcliffe, October 22, 1924, June 12, 1929.

Leicester Royal Infirmary ; Pick, Everard, Keay and Gimson, February 18, 1930.

Margate General Hospital ; Adams, Holden and Pearson, March 18, 1931.

Maternity Home, Radcliffe Infirmary, Oxford : Stanley Hamp, December 9, 1931.

Middlesex Hospital ; Alner W. Hall, September 18, 1929.

Paisley Infectious Diseases Hospital ; winner, Sir J. Burnet, Tait and Lorne, December 7, 1932.

Princess Beatrice Hospital, Earl's Court; Sir Aston Webb and Son, June 22, 1932.

Redhill Hospital, Edgware ; Paine and Hobday, April 25, 1928.

Royal Northern Hospital, St. David's Wing : Adams, Holden and Pearson, November 25, 1931.

Southend-on-Sea Hospital ; Adams, Holden and Pearson, July 20 1932.

Scarborough Hospital ; winner, Wallace Marchment, October 26, 1932.

Torbay Hospital, Torquay ; Adams, Holden and Pearson, January 9, 1929.

Royal Westminster Ophthalmic Hospital : Adams, Holden and Pearson, January 9, 1929.

Tuberculosis Hospital, Sully, Cardiff ; winners, Pite, Son and Fairweather, November 25, 1931.

University College Hospital, Obstetric Block ; George Hornblower, January 25, 1928.

Elizabeth Garrett Anderson Hospital ; Sir Brumwell Thomas, July 24, 1929.

King George Hospital, Ilford ; C. J. Dawson, Son and Allardyce, T. A. Pole, consulting, September 9, 1931.

Special Hospitals Issue : November 16, 1932.

Competitions Open

May 30.—Sending-in Day. Royal Society of Arts Competitions for Industrial Designs. The Secretary of the Society, John Street, Adelphi, W.C.

May 31.—Sending-in Day. **Layout of a suburb on the river Escaut, Antwerp. £2,400 in prizes (1st, £800). Conditions, etc., were published in *A.J.* for December 7, 1932.**

June 3.—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums : £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Premiums : £350, £250 and £150. Full conditions, etc., were published in our last issue.

September 21.—Sending-in Day. Proposed Hospital at Surbiton. See page 680.

No Date.—Proposed Town Hall for the Portstewart U.D.C., Co. Londonderry. Open to architects practising in Northern Ireland. Assessor : R. H. Gibson, F.R.I.B.A., President of the Royal Society of Ulster Architects. Premium 50 guineas. Conditions of the competition may be obtained on application to Mr. F. Martin, Town Clerk, Portstewart. Deposit £1 1s.

Competition Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor : H. S. Goodhart-Rendel, F.R.I.B.A. Premiums : £150, £100 and £50. Conditions have not yet been drawn up.

THIS ARSHETECTURE

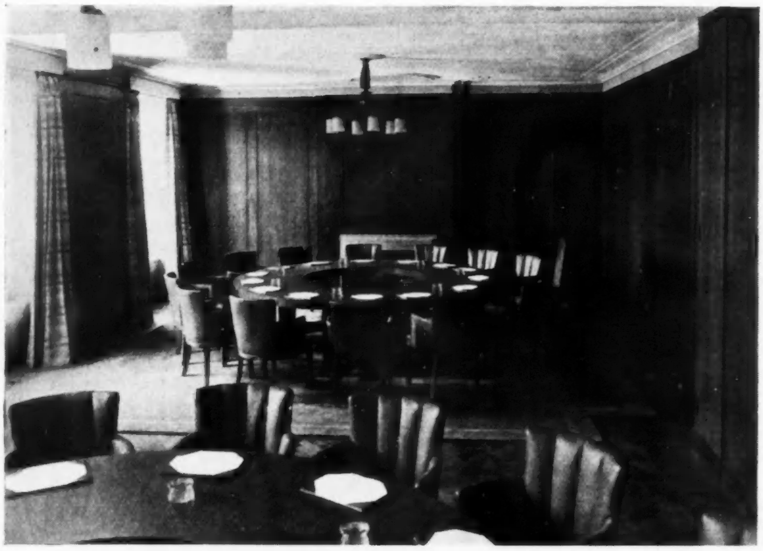
500,000 People and Forty Bishops to see Start of New Cathedral

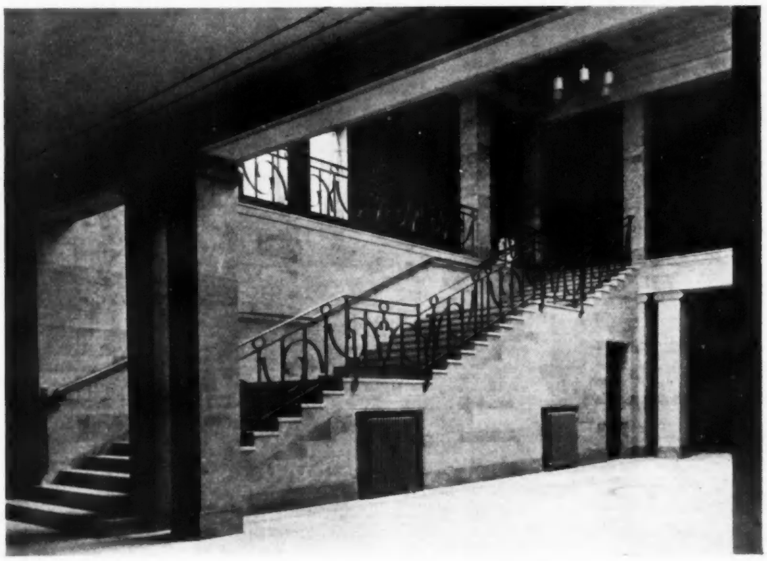
Dr. Richard Downey, Archbishop of Liverpool, first planned this cathedral in his own mind, and then set out to find a man to interpret his ideals.

" Lutyens used eight tons of paper for his drawings, and the result is a masterpiece."

—*The Sunday Express, 14/5/33.*

WORTHING TOWN





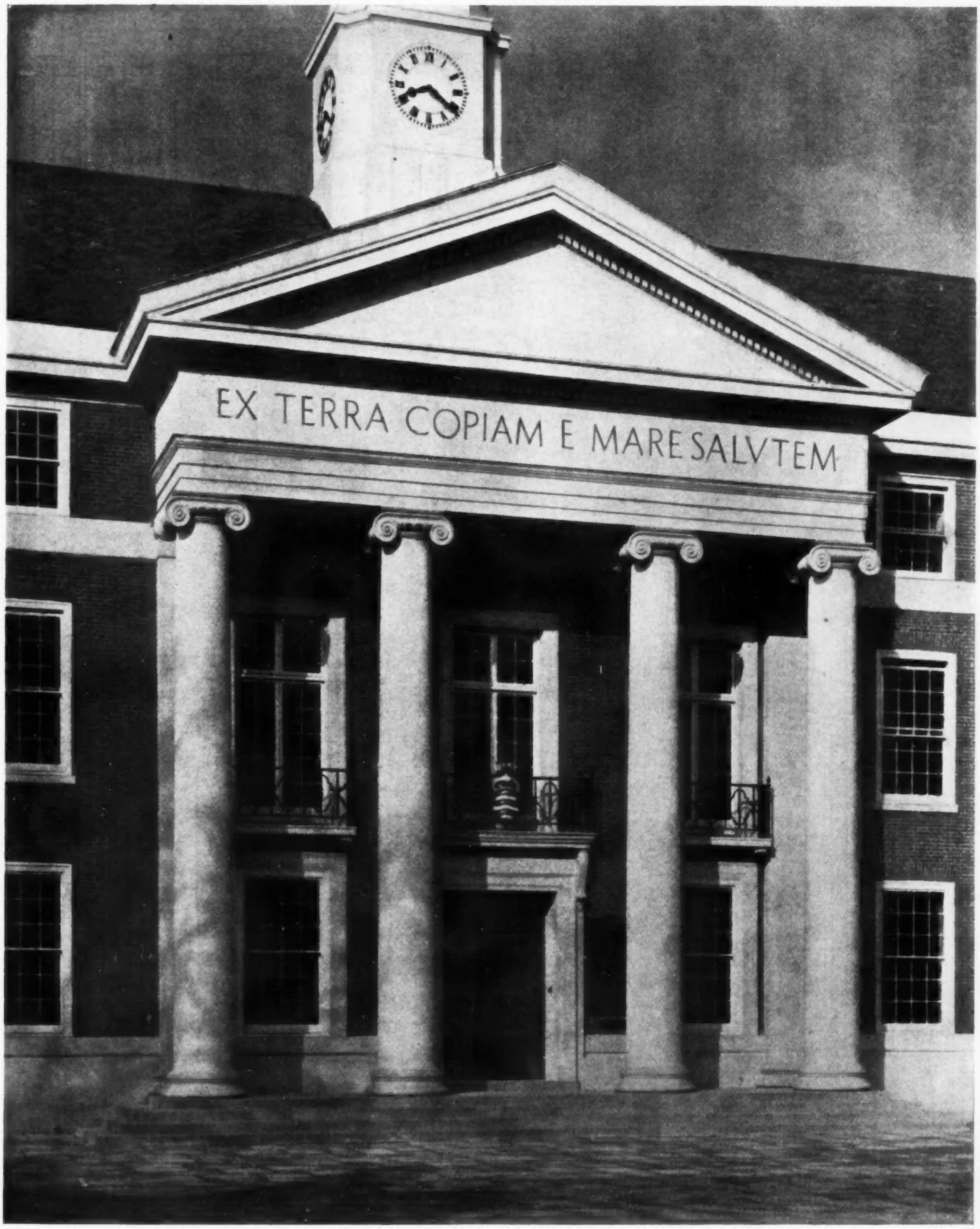
The building here illustrated is the result of a competition originated in 1930. Designs were invited for municipal offices, court house, assembly hall and maternity and child welfare clinic ; 43 entries were received. Later, it was decided to defer erection of the assembly hall, but the remainder of the work has now been completed. The clinic (see pages 686-7) is a separate building.

The upper view on this page shows part of the suite of committee rooms, panelled in Australian walnut. By means of folding doors, it may be made available for use by one, two or three committees simultaneously. In the lower view is seen the main entrance hall, whence two staircases lead up to the principal accommodation, which is placed at first-floor level. Walls and floor are of Ancaster stone ; in the centre of the latter is the Worthing crest, carried out in marble and mosaic by the sculptor, Gilbert Bayes.

The Council Chamber, illustrated on page 684, has had special acoustic treatment, the walls being faced with damask over felt ; blue predominates in the colour scheme.

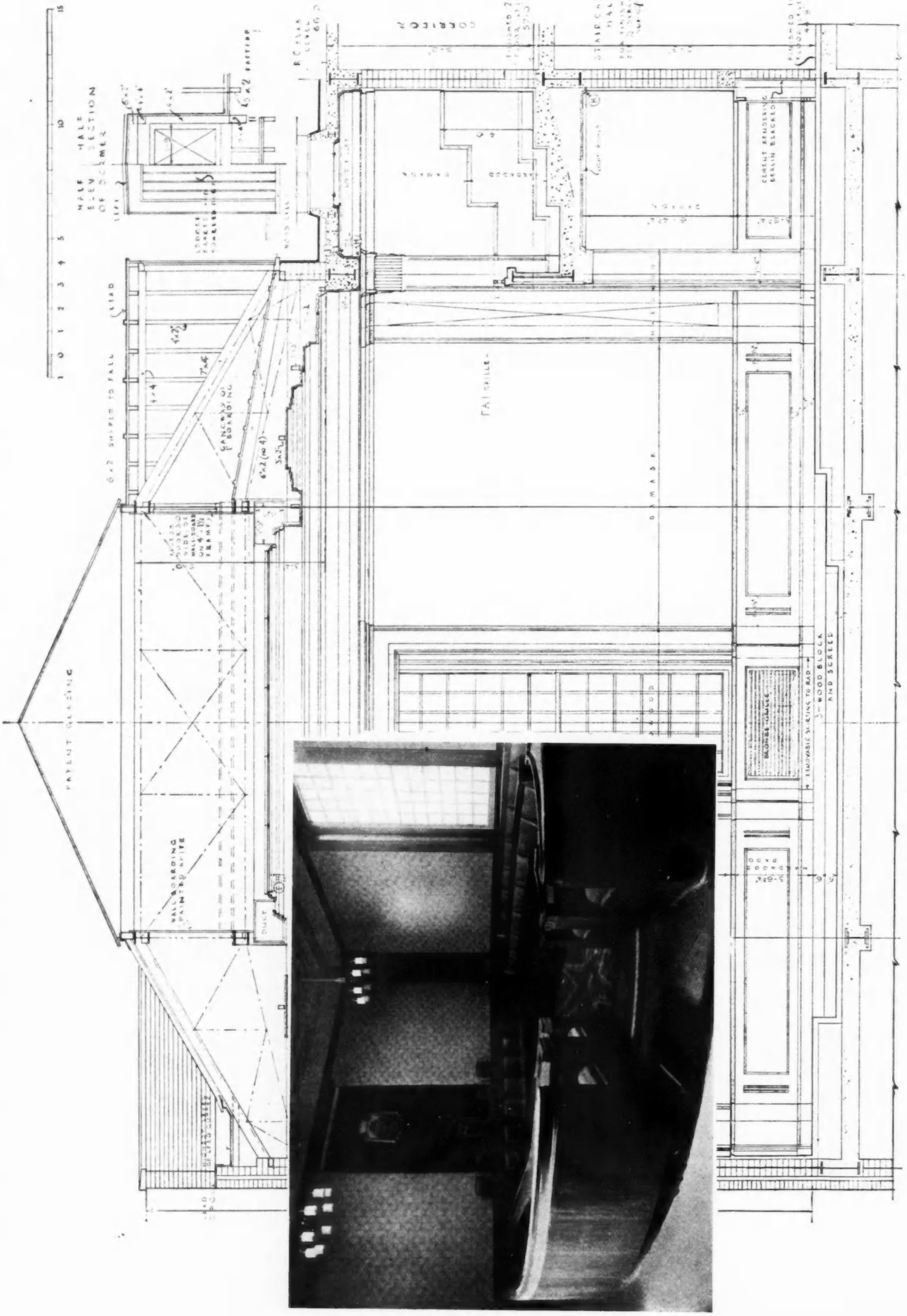
The heating is by low-pressure hot water through the medium of radiators, with a plenum plant for the Council Chamber, Court Room and the larger rooms. The building is wired for auxiliary electric heating and inter-communicating telephones.

HALL: BY C. COWLES-VOYSEY

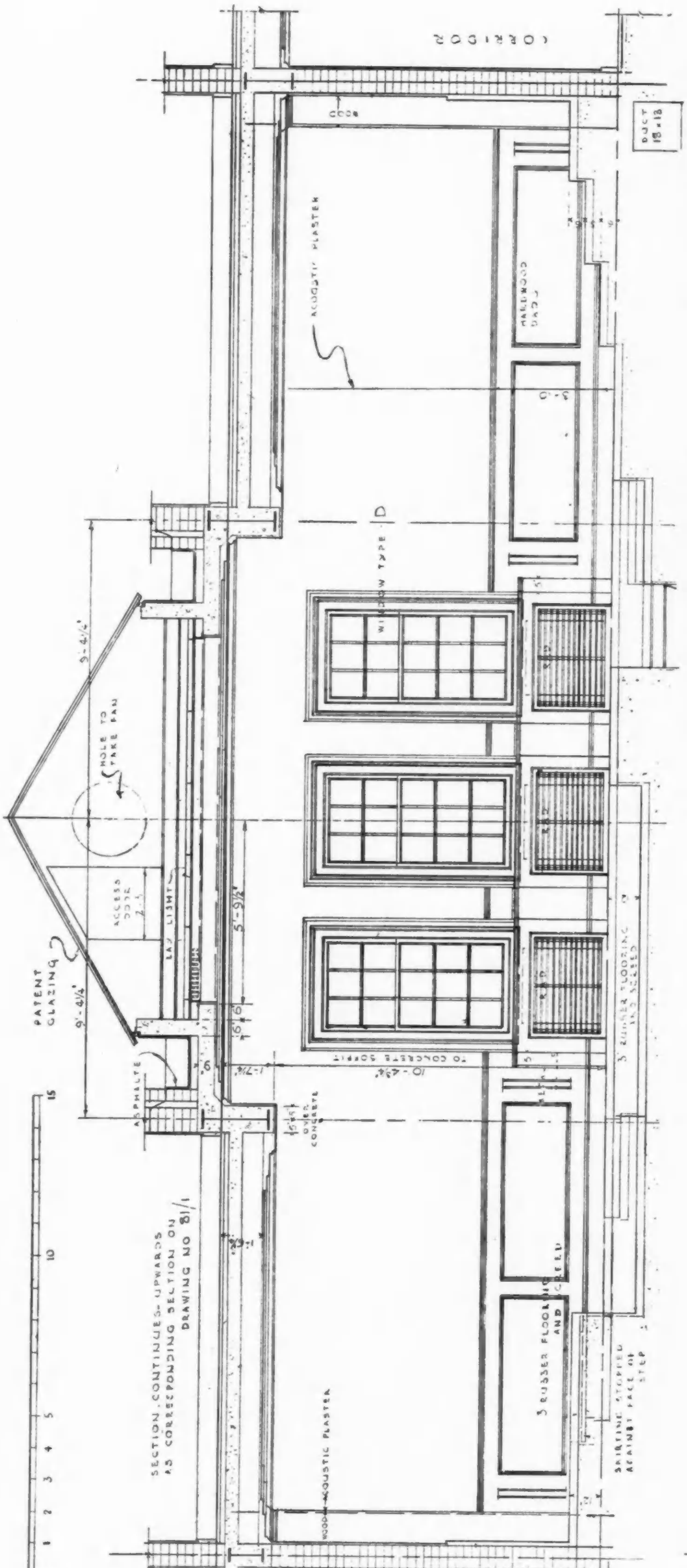


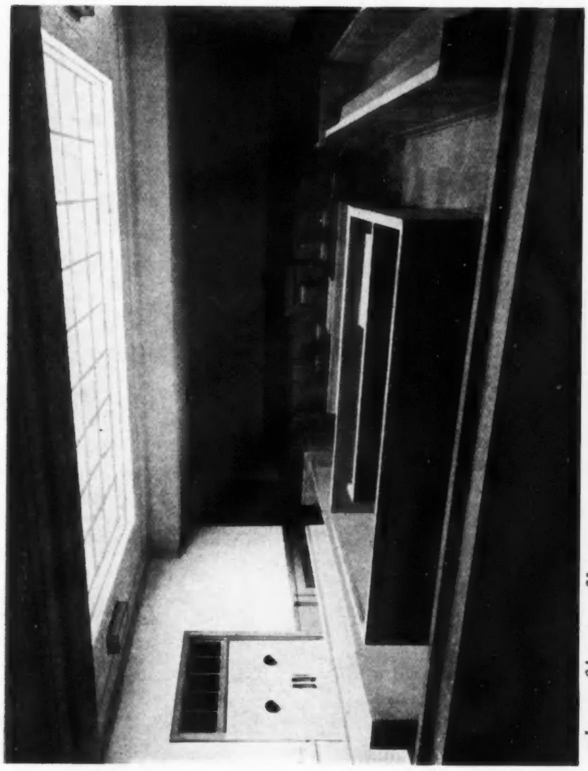
The Ionic portico to the main entrance in the centre of the Chapel Road front. The building is faced with hand-made, sand-faced, multi-colour bricks, with dressings of stone; it is roofed with green Westmorland slates.

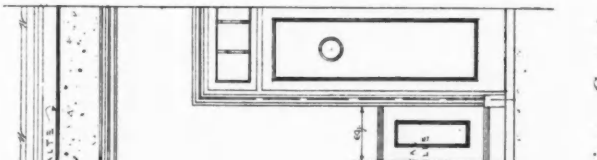
WORTHING TOWN HALL : BY C. COWLES-VOYSEY


PATENT GLAZING
HALF ELEVATION HALF SECTION OF DORMER
LEAD
6x2 SHAPED TO FALL
GANGWAY OF 1" BOARDING
HALF BOARDING PAINTED WHITE
CORRIDOR
STAIRCASE HALL
DAMASK
FAI GRILLE
CEMENT RENDERING
REMOVABLE SEATING TO RAD
3" WOOD BLOCK AND SCREED
DUCT
0 1 2 3 4 5 10 15

The Council Chamber on the first floor.

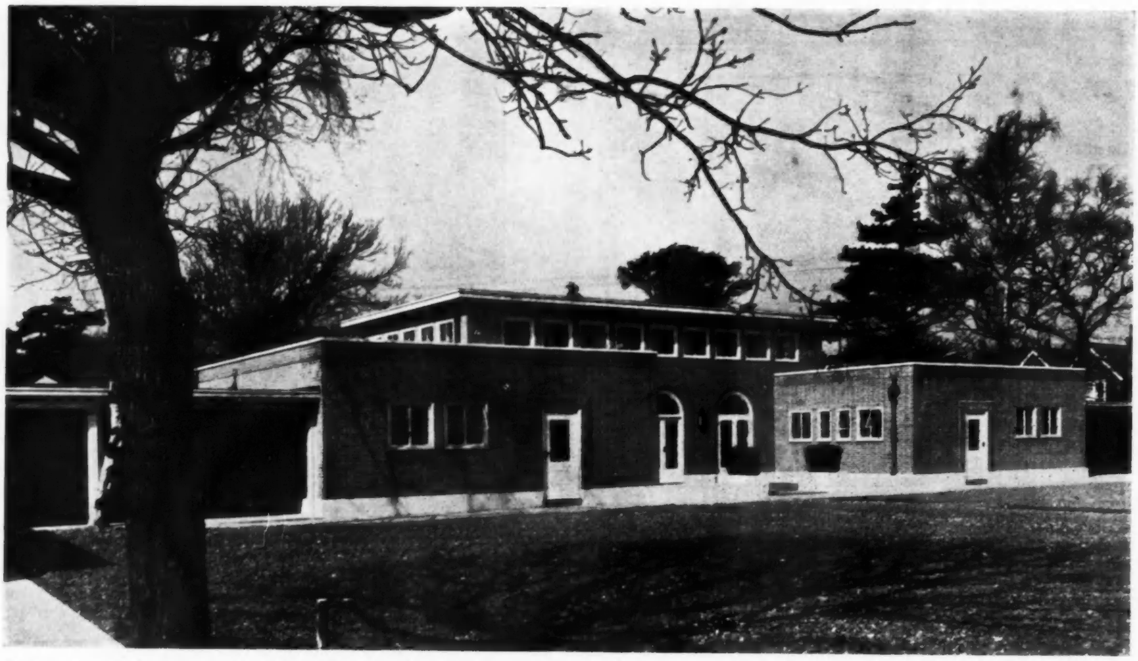

CORRIDOR
DUCT 18"×18"
ACOUSTIC PLASTER
HARDWOOD DADO
3'-0"
WINDOW TYPE D
RAD
HOLE TO TAKE FAN
9'-4¼"
5'-9½"
ACCESS DOOR
LAY LIGHT
PATENT GLAZING
9'-4¼"
ASPHALTE
10'-4¾"
TO CONCRETE SOFFIT
3 RUBBER FLOORING AND SCREED
SECTION CONTINUES UPWARDS AS CORRESPONDING SECTION ON DRAWING No 81/1
SKIRTING STOPPED AGAINST FACE OF STEP
ACOUSTIC PLASTER
0 1 2 3 4 5 10 15
CORRIDOR




ASPHALTE
10'-4¾"
TO CONCRETE SOFFIT
5'-0"
HARDWOOD DOORS
3'-0"
7'-6"
DUCT 18"×18"
CORRIDOR

The Police Court on the first floor.

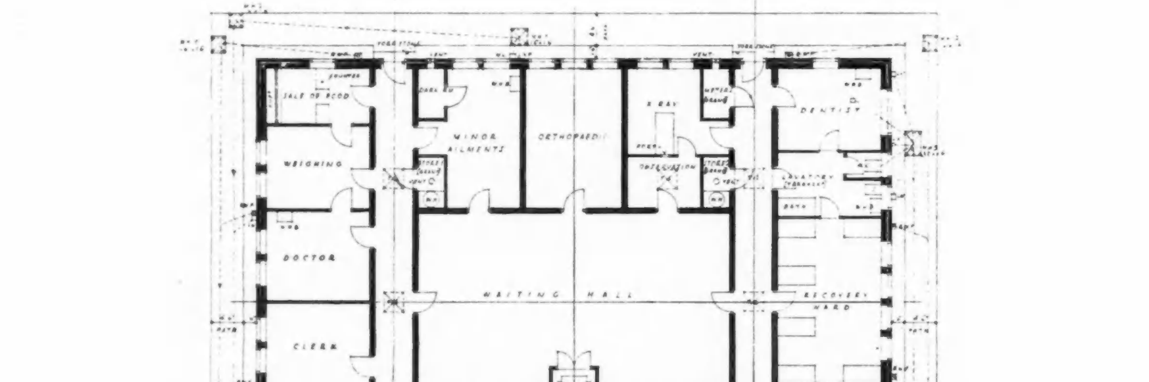
WORTHING TOWN HALL: THE CLINIC:



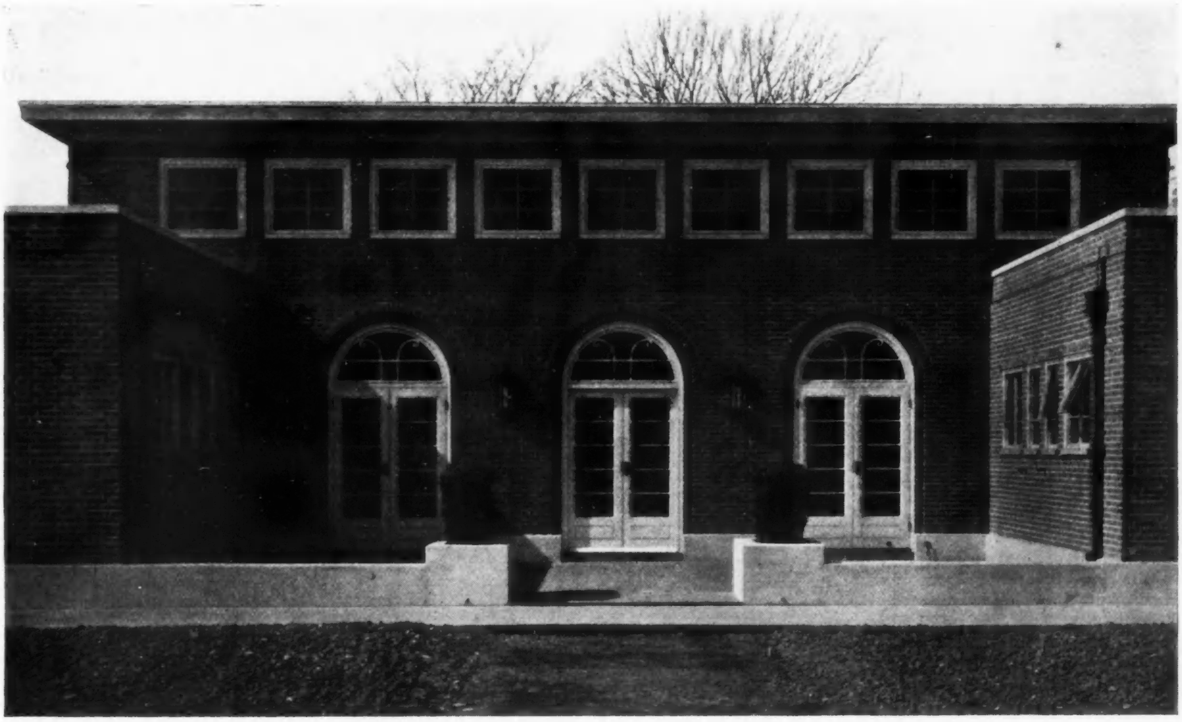
The plan of the new municipal clinic is similar in its general arrangement to that of the usual out-patients' department of a hospital. There is a central waiting hall, with a direct entrance for all patients, surrounded on three sides by the various administrative and treatment rooms. This is lighted and ventilated by clerestory windows on all sides, placed above the lower surrounding rooms. The external wall contains the entrance (see facing page) and a series of French windows.

In the north wing there is a small operating theatre, with a recovery ward adjacent; a dental operating theatre, with rinsing room and lavatory; and a small laboratory. These rooms are disconnected from the waiting hall by a corridor. In a similar wing on the south side are the doctor's consulting room, nurses' room and office for the clerical staff. The building, which will face on to a grass quadrangle, is provided with ample perambulator shelters.

The construction is of a fire-resisting nature, having cavity brick walls and reinforced concrete roofs, which are insulated with cork and covered with asphalt. Internally, the finish is consistent with modern practice in hospital design.


SALE OF FOOD
WEIGHING
DOCTOR
CLERK
NURSES
KITCHEN
DARK RM
MINOR AILMENTS
ORTHOPAEDIC
X RAY
DENTIST
LAVATORY
BATH
WAITING HALL
RECOVERY WARD
THEATRE
LABORATORY
TERRACE
PRAM SHELTER
PRAM SHELTER
PATH
PATH
10 5 10 20 30 40 50

DESIGNED BY C. COWLES-VOYSEY



ARCHITECTURAL CONTROL

ON A LIVERPOOL ESTATE

THERE is evidence in Liverpool that the sense of responsibility for true planning which the great ground landlords of the eighteenth century had, has not entirely vanished from England. The Marquess of Salisbury owns large tracts of agricultural land on the outskirts of Liverpool, which are being taken up rapidly by speculative builders. The builders' taste in that city reaches as low a level as can be found anywhere in the country, and it was the deplorable results of speculative enterprise on the first part of his estate to be developed that led Lord Salisbury to adopt a proper system of control of layout and elevations.

This important task has been given to a town planner, Professor Patrick Abercrombie, and an architect, Mr. Hinchcliffe Davies, and all layouts and designs are now submitted to them for approval. By the terms of the agreements between Lord Salisbury and the builders, the estate architects' powers are, theoretically, absolute, but in practice their veto cannot possibly be exercised to its fullest extent.

The builders on the Salisbury estate are surrounded by rival firms whose land is subjected to no control whatsoever, and too aggressive interference by the architects would make Salisbury land so unpopular among builders that they would avoid it, so that the whole object of control would be defeated. Moreover, the builders have to sell their houses, and purchasers habitually demand variations of their own, regardless of whether or not these variations will upset schemes of grouping and layout imposed by the estate architects. If they cannot get what they want from builders on the Salisbury estate, purchasers will naturally go elsewhere. This means a reduction of sales, and hence the same result as before: the unpopularity of Salisbury land. Estate control, therefore, has become a matter not of veto but of negotiation, in which the third party, the purchaser, is very often involved.

It has been found, too, that the business of speculative building is hedged about by various fetishes and conventions. For instance, in the suburbs, it is considered a sign of social inferiority to live in one of a block of three or four houses instead of in a semi-detached house. Again, the architects are hindered by the extreme conventionality of the lower-middle-class people who are coming into the new houses and who are terribly afraid of being different from their neighbours.

Then there is the two-story-bay fetish. Every purchaser wants one, although the constant repetition of this motive leads to an insufferable monotony. The plan itself is an unvarying convention. Practically every house selling at about £850 is designed on the same principle, whether its aspect is north or south. There are two entertaining rooms, the drawing-room at the front and the dining-room at the back, and both about the same size. Not one speculative builder in a hundred is speculative enough to risk building a house with one large living-room running through the house or along the full length of the front.

Windows are another source of difficulty. Some purchasers want lead lights and some want plain glass, and all unite in a desire for a transom with ill-proportioned fanlights above it. Against glazing bars there is a general prejudice which might have the support of the modernists did not the large sheets of glass go ill with the tiled roofs and gables of the orthodox elevation the average purchaser wants.

Inquiry leaves little doubt that the prejudice against small panes and glazing bars is due not so much to a desire for easy-cleaning surfaces and unobstructed vision as to a feeling that they result in a "Corporation house" appearance. Honest brickwork is objected to for the same reason. The middle-class suburbanite prefers pebble-dash, in order to make the distinction between the Corporation house and his own as wide as possible. Indeed, the charming work done in Liverpool by Mr. L. H. Keay, the Housing Director, has ironically created a general objection to Georgian architecture by the suburban house purchaser. In Liverpool, as in many other cities, the working class lives in houses of infinitely better design than do the middle class. But the middle class prefers it so.

Before supervision of the Salisbury estate began, the builders used to put in pressed roofing tiles, pebble-dash, with dressings of red pressed brick, having black-mortared joints, and sham half-timbering. The architects have had some success in persuading the builders to use tiles with a sanded face, and white cement concrete and rustic bricks with cream-mortared joints. Where the pitch of a roof is steep enough, which is very rarely, the architects try to persuade the builders to use bonnet tiles for the hips, and when this is impossible. a compromise is made with an ordinary mitred tile. Sham half-timbering is discouraged, and the practice of placing blue ridges on red-tiled roofs, and *vice versa*, is no longer put forward.

With paint-work, progress is slow. The purchaser wants to be the arbiter of colour schemes, and he sees nothing wrong in chocolate-and-orange on one of a pair of houses and blue-and-green on the other. Nor can the architects' control prevent a purchaser from repainting his house a different colour.

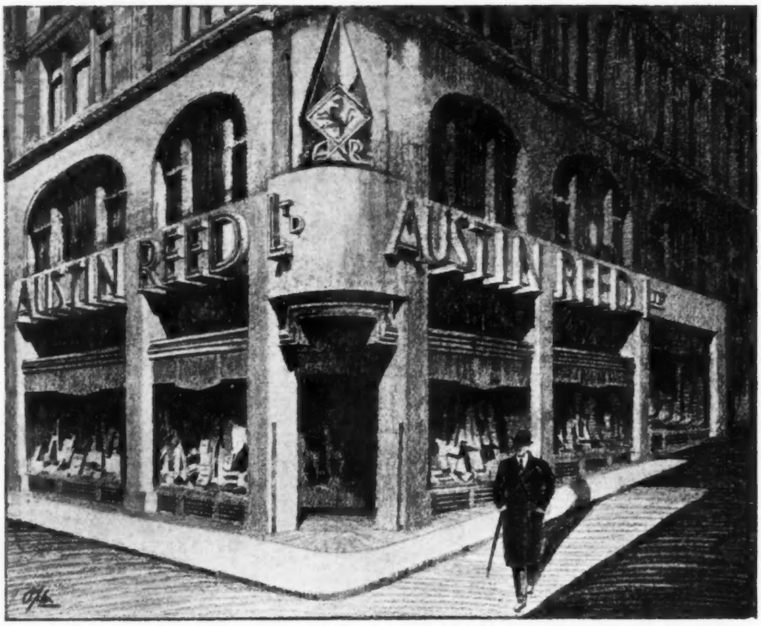
The architects would like to insist on grass verges, small open spaces and trees, but the Liverpool Corporation will not undertake to maintain them, and who else can?

It will be seen that, starting as they have done with speculative building at its worst, Professor Abercrombie and Mr. Hinchcliffe Davies have a task beset with innumerable difficulties. If all the speculative work in the city were subject to the same control, the matter would be easy, and the middle-class purchaser with bad taste would find it as impossible to buy an ugly house from a builder as it is for the artisan to rent an ugly house from the Corporation.

Some of the builders on the Salisbury estate are genuinely anxious to fall in with the architects' wishes, but their public spirit is impotent against the competition of indifferent builders. The moral is that, while control of elevations is essential, there will be no achievement comparable with the best work on Corporation housing schemes or at such self-contained places as Port Sunlight and Welwyn until the standard of the purchasing public's taste is raised. On the Salisbury estate, the architects do not expect that control will lead at once to positive beauty. But if it achieves the elimination of ugliness, an extraordinary advance will have been made.

The public must be educated by frequent exhibitions, by incessant propaganda, by advertising, by letters to the Press and by public speeches. The lesson of the Salisbury scheme is the uselessness of forcing the builder to build what the public doesn't want.

A NEW SHOPFRONT AT



Messrs. Austin Reed's branch in New Street, Birmingham, has been enlarged and reconditioned by taking in the adjacent shop and by the removal of the party walls. Entirely new fronts have been designed in brown travertine marble and bronze, and a feature was made of stainless steel lettering, which takes its place as part of the design and is not merely applied.

These two drawings show the entrance and part elevation. The interior is refitted with walnut panelling and fixturing and stainless steel handrail to the staircase to the basement and first floor departments.

LETTERS *FROM* READERS

JOHN J. BLOWER
NOEL CARRINGTON
SUBURBAN
JULIAN R. ELSLEY,
Thomas Elsley, Ltd.
E. C. INSTON

The Speculative Builder

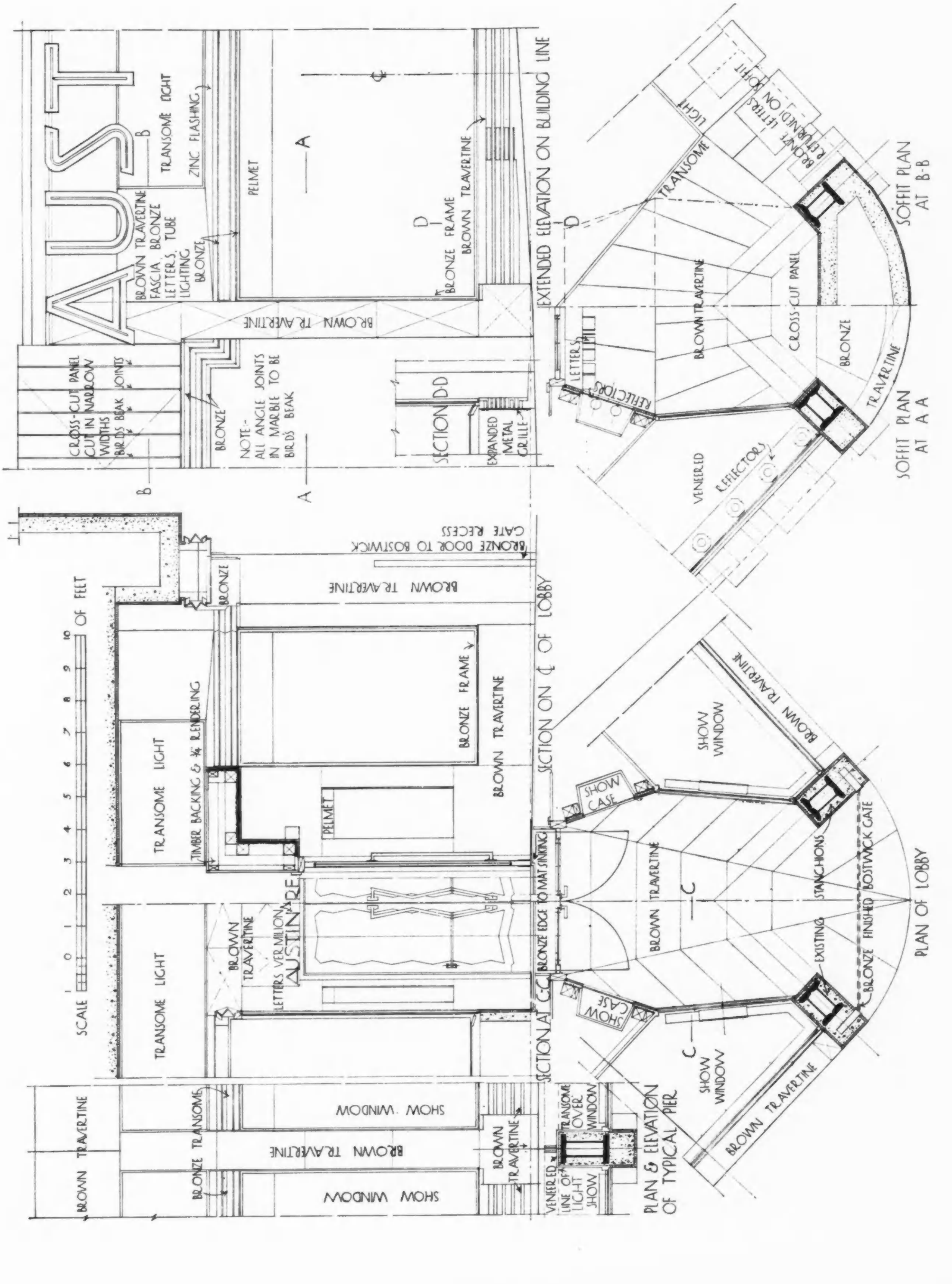
SIR,—It was with great gratification that I perceived Mr. J. Wardle's request for plans in accordance with my designs published in your JOURNAL for May 3. I shall be very pleased to supply him with any type of plan or elevation that he may require for the sum of seventeen and sixpence per copy. ("Worth a guinea a copy." *Vide* Press.)

I do feel, however, that the malicious and totally undeserved attack made not only upon my work, but upon my person by Mr. Charles Gregory Martin (see JOURNAL for May 10), can only be described, if I may be permitted to express the view, as abusive and totally unworthy of an F.R.I.B.A., however retired.

I should like here and now, Sir, to vindicate my positions as Architect, Engineer, Estate Agent, Surveyor and Auctioneer, before the whole world. I have a responsible backing in my work of supplying suburban builders with plans and layouts of housing estates (e.g., my famous Larkholme Ideal Cosy Corners, Ltd., West Finstead Park). My backing, Sir, is the Government. If I am a pest, and am disfiguring the face of our glorious hermitage, as Mr. Martin suggests, WHY AM I NOT PROSECUTED? Your case is legally unsound. I am encouraged in my work of providing domiciles for the workers of our metropolocies, and it gives me a great and permanent satisfaction that I should be supported in this great cause by the House of Lords and the House of Commons (for "Those that are not against us. . .").

I am not at all sure that your JOURNAL is not liable under the law, for pub-

BIRMINGHAM : BY P. J. WESTWOOD


AUST
TRANSOME LIGHT
ZINC FLASHING
B
BROWN TRAVERTINE FASCIA, BRONZE LETTERS, TUBE LIGHTING
BRONZE
PELMET
A
D
BRONZE FRAME
BROWN TRAVERTINE
EXTENDED ELEVATION ON BUILDING LINE
CROSS-CUT PANEL CUT IN NARROW WIDTHS
BIRDS BEAK JOINTS
NOTE:- ALL ANGLE JOINTS IN MARBLE TO BE BIRDS BEAK
SECTION DD
EXPANDED METAL GRILLE
LETTERS
REFLECTORS
TRANSOME
LIGHT
BRONZE LETTERS RETURNED ON SOFFIT
SOFFIT PLAN AT B-B
CROSS-CUT PANEL
BRONZE
TRAVERTINE
SOFFIT PLAN AT A A
VENEERED
BRONZE DOOR TO BOSTWICK GATE RECESS
SCALE 1 0 1 2 3 4 5 6 7 8 9 10 OF FEET
TIMBER BACKING & ¾ RENDERING
SECTION ON ℄ OF LOBBY
BRONZE EDGE TO MAT SINKING
LETTERS VERMILION
AUSTIN REE
SHOW CASE
SHOW WINDOW
C
STANCHIONS
EXISTING
BRONZE FINISHED BOSTWICK GATE
PLAN OF LOBBY
SECTION AT C-C
BRONZE TRANSOME
TRANSOME OVER WINDOW
LINE OF LIGHT SHOW
PLAN & ELEVATION OF TYPICAL PIER

lishing such slanders, but I am postponing proceedings indefinitely.

Honos Alit Artes, my dear Sir, as my work will testify.

JOHN J. BLOWER

[*We here and now, in order to avoid all possibility of legal proceedings, apologize to Mr. John J. Blower and withdraw unreservedly any imputations that may have been made in this* JOURNAL *on his fair name. It is clear that Mr. Blower represents a type that has been aptly called the backbone of the nation.*—ED., *A.J.*]

SIR,—Really you and your architect correspondents have the most astonishing effrontery in ridiculing the speculative builder for his bad taste in house design. In your last issue you show some imaginary villas in the Tudoresque and other picturesque styles, and really our arterial roads are enough to make one go by train.

But, Sir, what are these silly elevations if not caricatures of what all the leading architects were putting up until a few years ago, when most of them went Georgian? It is true that the architects built them for £5,000 apiece and used genuine old oak and called them "Strangeways," "Garth," and the like, and it is true that you and your contemporaries illustrated them and wrote very learned comments on their scholarship, skill in siting and the rest of it. But the sin of the architectural profession was infinitely more gross than that of the builder who now satisfies the taste which has spread downwards to humbler classes of society. Come, Sir, don't let's be so superior.

NOEL CARRINGTON

Competition for Small Houses

SIR,—A plaint and its satisfaction seldom come so close together as in your last issue, where my letter under the above heading appeared on page 655, while plans and a photograph of a pair of houses at Kenton which substantially fill the programme are illustrated on page 664.

As I am writing, I should like to have one doubt resolved. The houses occupy a frontage of 19 ft. 3 ins. each, and we are told that each plot is 24 ft. wide, which includes "space for garage." Unless this is a misprint, either the garage is for a motor cycle, or the Baby Austin will want some skilful driving!

SUBURBAN

[*The architects for these houses point out that they have garages behind them, with a single 9-ft. passage between; at the rear this widens out to serve both garages.*—ED., *A.J.*]

Inigo Jones's Headpiece

SIR,—I hope you will excuse this letter on a matter which may be of small moment; but I for one of your many regular readers should appreciate a more cheerful gentleman on the outside cover of THE ARCHITECTS' JOURNAL, the pages of which are so often, and so rightly, devoted to the "anti-depression campaign." He may have been a very clever man, but somehow he does not seem to be in keeping with the rest of the JOURNAL—perhaps, however, I am wrong! It certainly proves that they had troubles in the mediæval times.

JULIAN R. ELSLEY

Acoustics in a Theatre

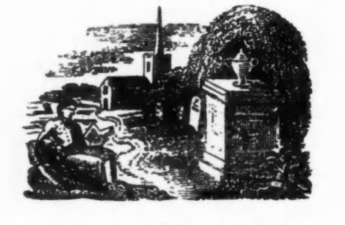
SIR,—On page 632 of your issue for May 10, in a review of a book on Acoustics, I find the following quotation:—

> It is best to keep the stage as reverberant as possible. This can only be done if a large quantity of canvas were not allowed to remain in the flies.

I think it might be of interest to know that this should not be accepted as a hard and fast rule. In a theatre also used for talking pictures, where the acoustical correction of the auditorium had been carried to the finest possible pitch, reverberation on the stage, owing to the lack of canvas in the flies, so affected matters (and the artists on the stage) that it was found essential to hang 8 or 9 full-sized blank back cloths in order to assist the acoustics.

I had considerable difficulty with the case, but the action taken effected a definite cure.

E. C. INSTON



Commonwealth Fellowships

The Commonwealth Fellowships—America's reply to the Rhodes Scholarships—are the most valuable awards of the kind in the academic world. Nominally they are of the value of £600 a year for two years but with the fall of the £ they stand today at something nearer £750 a year. They are given for the purpose of research in America to selected graduates of the English Universities who have obtained First Class Honours Degrees. In these times of economic depression there is naturally great competition for these Fellowships. This year's awards have been made as follows:—

> Cambridge, 5½ (one shared with London): Liverpool, 3; Oxford, 3; London, 1½ (one shared with Cambridge); and the following have obtained one each: Glasgow, Birmingham, Leeds, Edinburgh, St. Andrews, Durham, Swansea.

The names of the Liverpool men are R. J. Gardner-Medwin, B.ARCH., whose Fellowship is to Harvard in architecture; J. H. Lamble, B.ENG., PH.D., whose Fellowship is to the University of Michigan in engineering; J. C. E. Simpson, B.SC., PH.D., whose Fellowship is to the Rockefeller Institute in chemistry.

R. J. Gardner-Medwin is the only man to whom a Commonwealth Fellowship has been awarded for research in architecture and he proposes to use this opportunity to make a special study of American methods of town-planning.

Maidstone Arts and Crafts Society

The third annual exhibition of the Maidstone Arts and Crafts Society was held at Maidstone last week. The exhibits comprised architectural drawings, etchings, wood engravings, oil and water colours, sculpture and craft work.

I.A.A.S. £1,000 House Competition

On May 17 an exhibition of models and drawings of the winning designs and drawings of the other entries in the I.A.A.S. £1,000 House Competition was opened by Sir Edwin Lutyens, R.A., P.I.A.A.S. at the premises of Messrs. Cole Bros. Ltd., Church Street, Sheffield. The exhibition will remain open until May 27.

The late J. G. Burgess

We regret to record the death of Mr. Julian G. Burgess, F.R.I.B.A., which occurred in his fifty-sixth year at his home at Beaconsfield.

He was a member of the firm of Messrs. Burgess, Holden and Watson, architects and surveyors, of Bank Chambers, Beaconsfield.

Recent Will

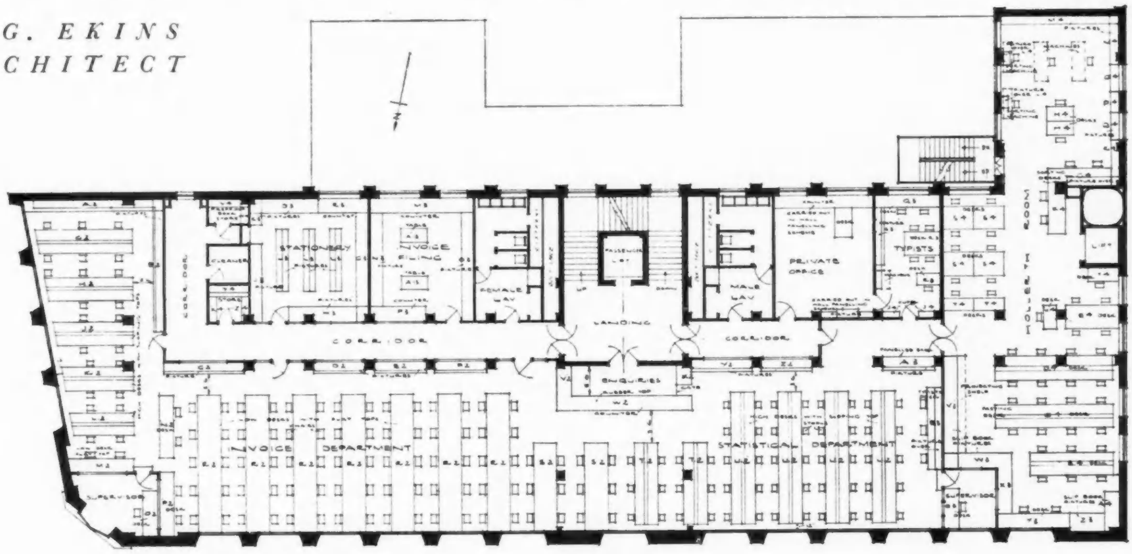
Mr. E. W. Coldwell, Architect and Surveyor, of Pall Mall, left £12,762 (net personalty £12,692).

ON THE AIR

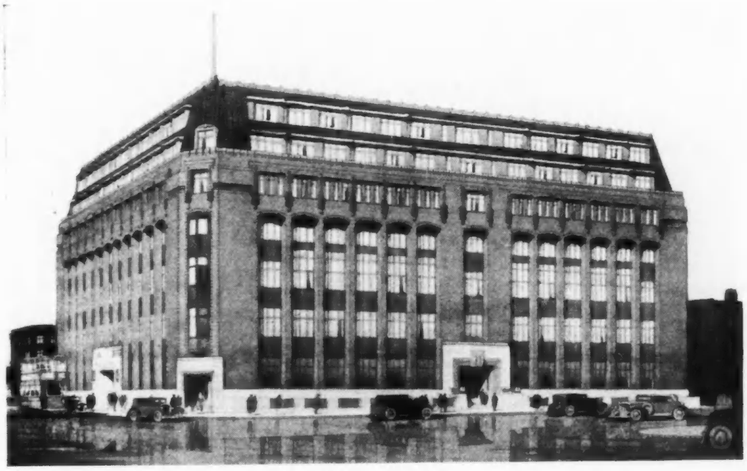
On Tuesday next, May 30, the seventh of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Messrs. A. B. Read and Geoffrey Boumphrey, who will discuss "Light."

CO-OPERATIVE SOCIETY'S LONDON BRANCH

L. G. EKINS
ARCHITECT


STATIONERY
INVOICE FILING
FEMALE LAV
LANDING
PASSENGER LIFT
MALE LAV
PRIVATE OFFICE
TYPISTS
CORRIDOR
ENQUIRIES
INVOICE DEPARTMENT
STATISTICAL DEPARTMENT
SUPERVISOR
LIFT

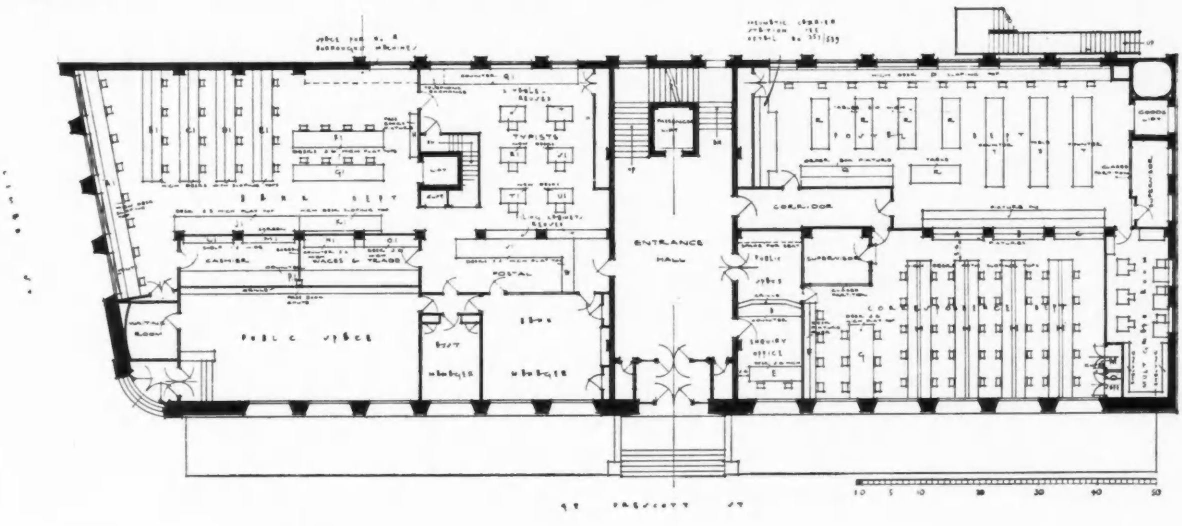
FIRST FLOOR PLAN



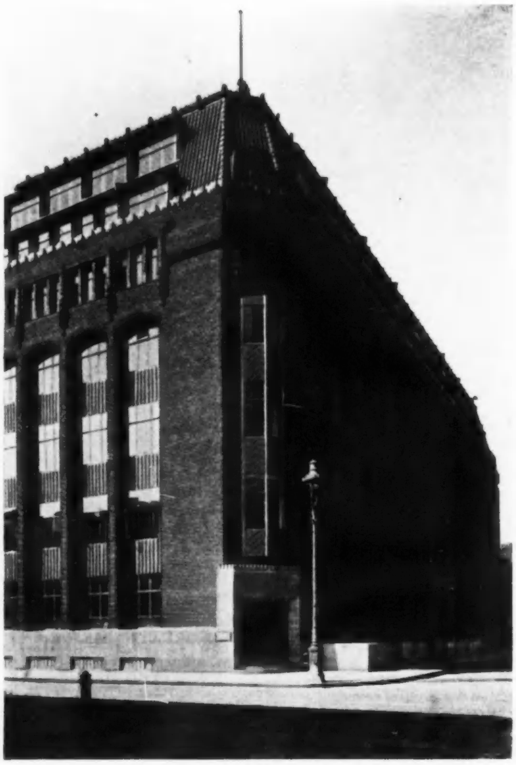
This new building, of which the plans show the present extent, while the adjoining perspective drawing represents the scheme as it will be on completion, stands at the corner of Leman (left) and Great Prescot Streets, E.1, and is to house the Society's banking, administrative and other offices.

The external walling is in brickwork, used in forms and patterns the nature of which is indicated overleaf. It rises from a base, extended to embrace the entrance architraves, of artificial granite. A close range photograph of the entrance in Great Prescot Street appears on page 694. Above the line of the set-back is a two-story mansard faced with green glazed tiles.

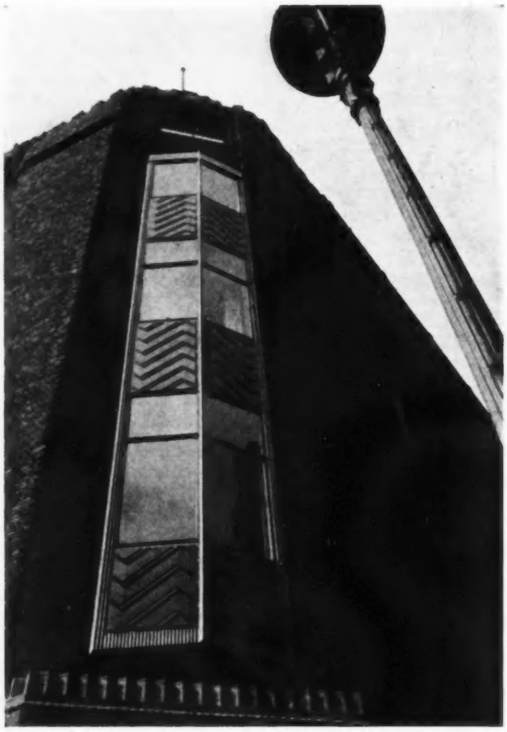
On the second and third floors are a board room, committee and reception rooms, panelled and with special built-in fittings: illustrations of these appear on pages 695-6.


TYPISTS
LIFT
CASHIER
WAGES & TRADE
POSTAL
PUBLIC SPACE
WAITING ROOM
ENTRANCE HALL
PASSENGER LIFT
CORRIDOR
SUPERVISOR
ENQUIRY OFFICE
GOODS LIFT
GT PRESCOT ST
10 5 10 20 30 40 50

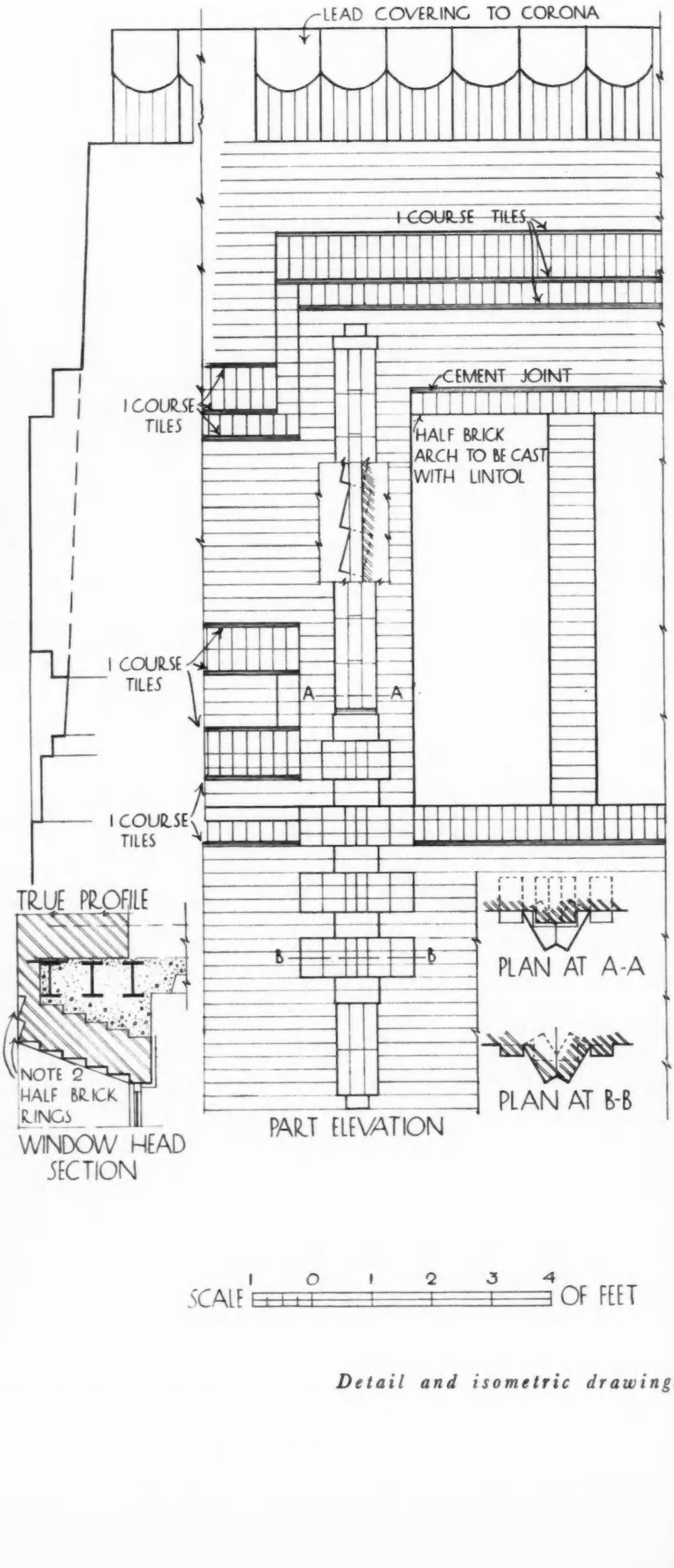
CO-OPERATIVE WHOLESALE SOCIETY'S



Banking Entrance, Leman St. (left) corner.

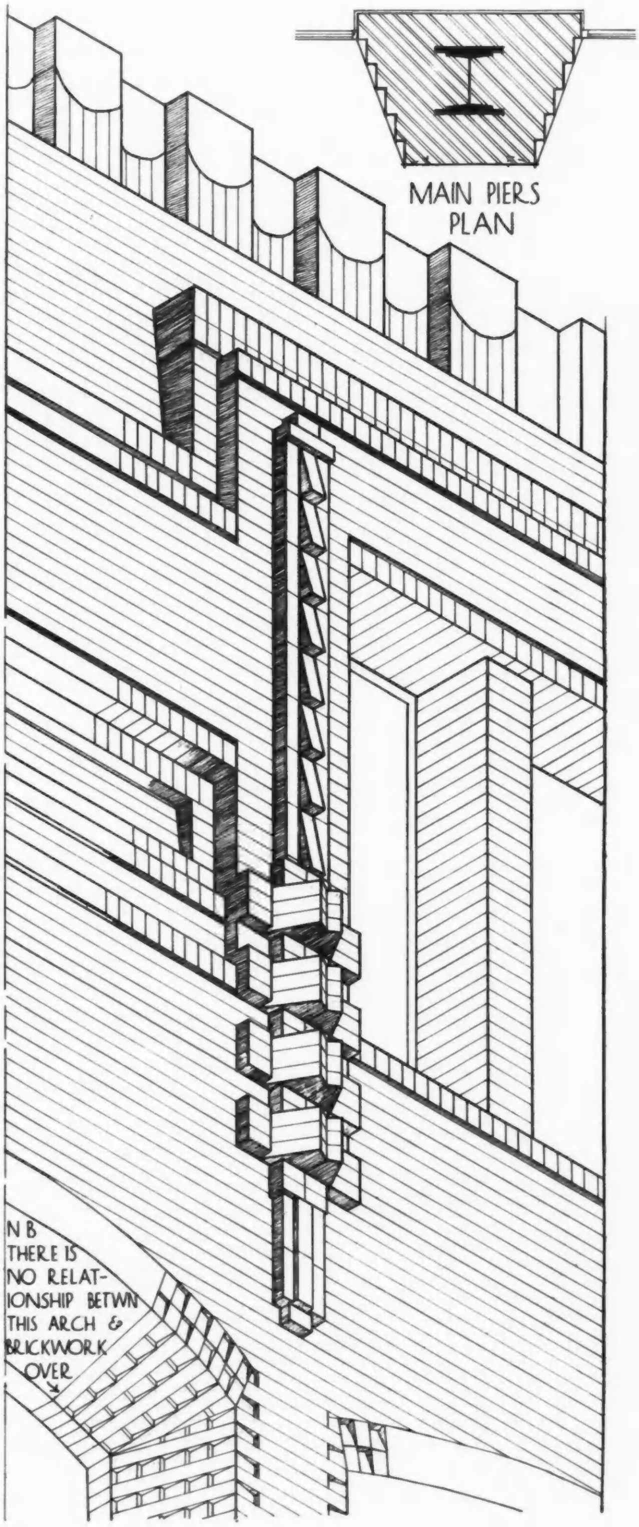


A raking view of the corner.

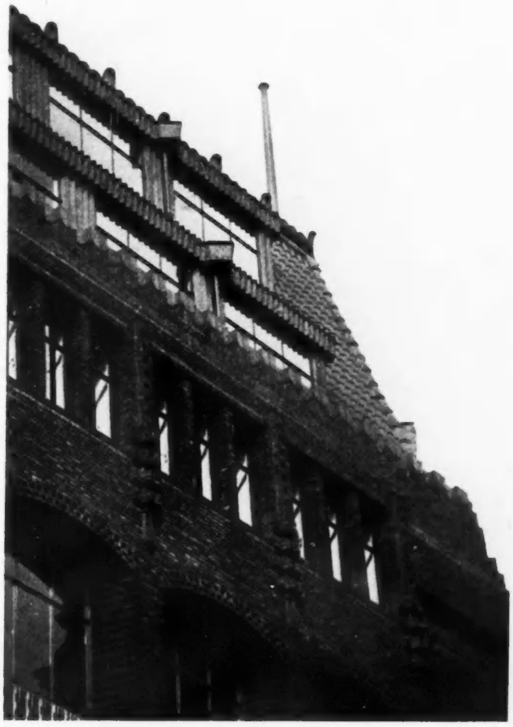

LEAD COVERING TO CORONA
1 COURSE TILES
CEMENT JOINT
1 COURSE TILES
HALF BRICK ARCH TO BE CAST WITH LINTOL
1 COURSE TILES
A
A
1 COURSE TILES
B
B
PLAN AT A-A
PLAN AT B-B
TRUE PROFILE
NOTE 2 HALF BRICK RINGS
WINDOW HEAD SECTION
PART ELEVATION
SCALE 1 0 1 2 3 4 OF FEET

Detail and isometric drawings

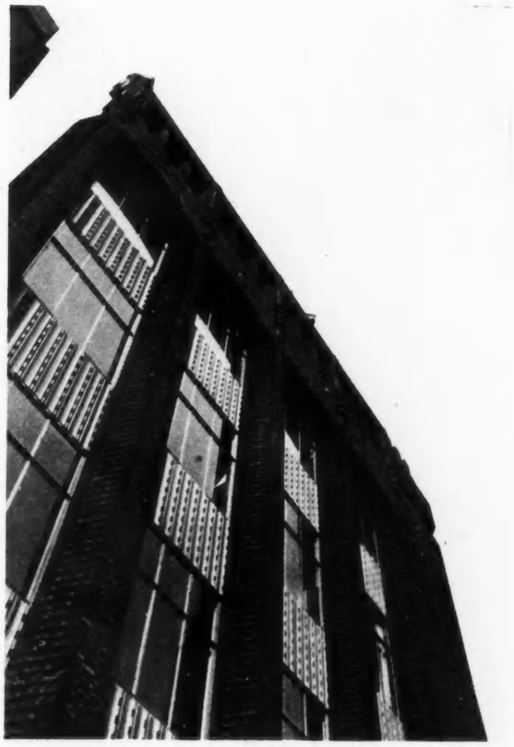
LONDON BRANCH: L. G. EKINS, ARCHITECT


MAIN PIERS PLAN
N B THERE IS NO RELATIONSHIP BETWN THIS ARCH & BRICKWORK OVER

of the upper part of the façade.

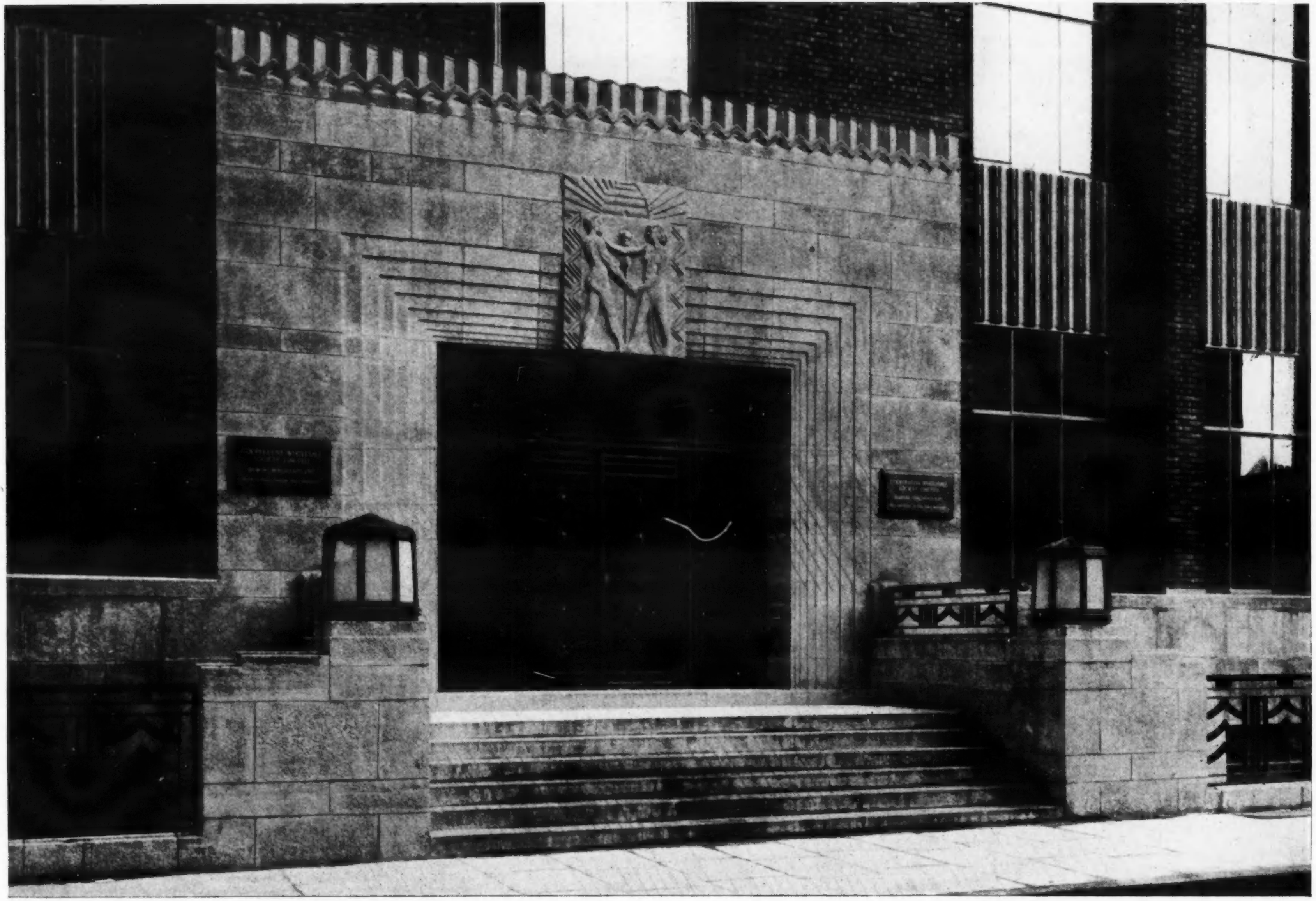


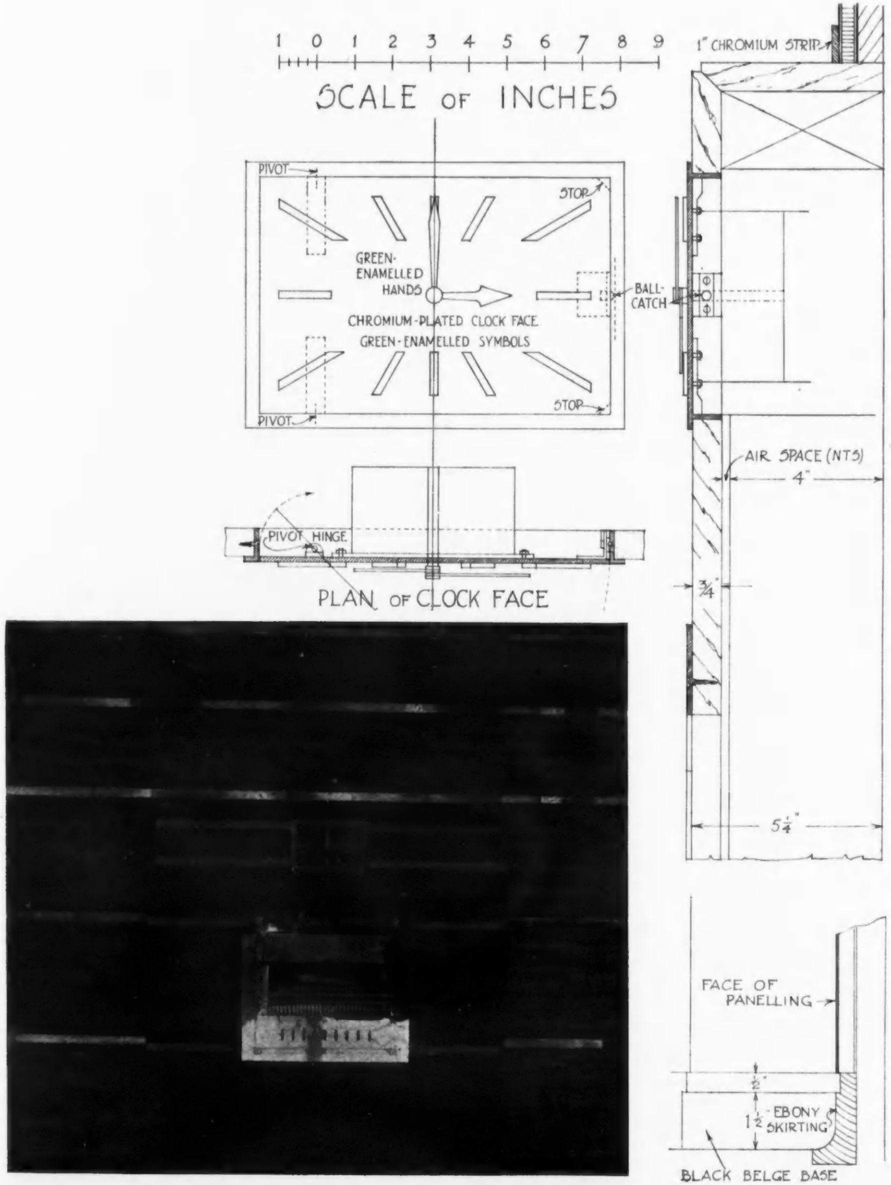
Above the set-back.



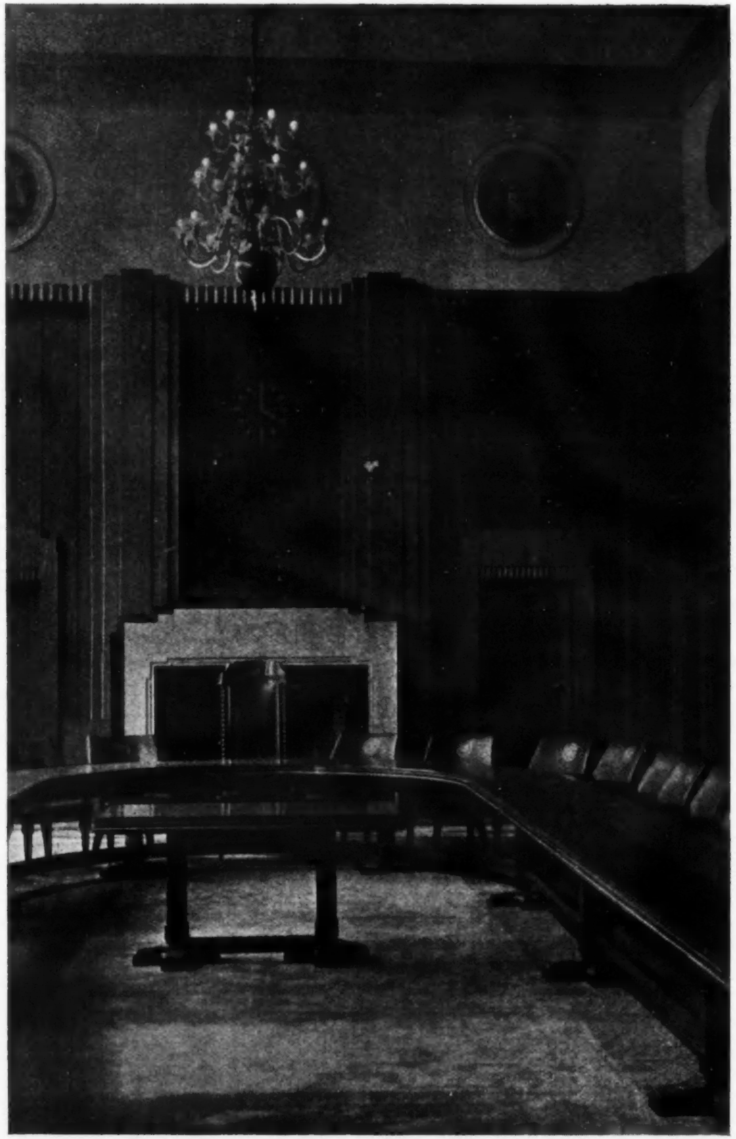
Below the set-back.

CO-OPERATIVE SOCIETY, LONDON : L. G. EKINS, ARCHITECT



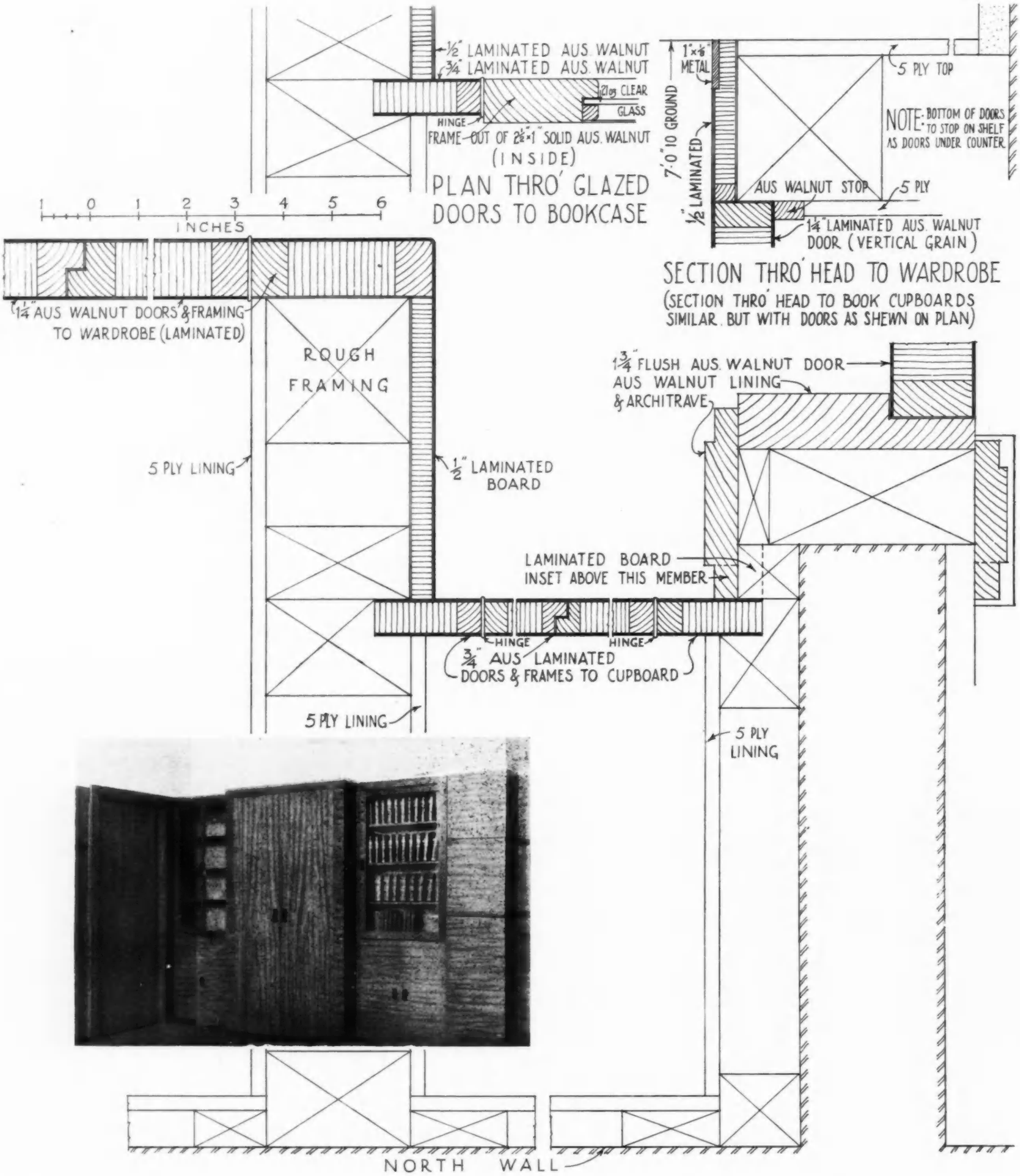

1 0 1 2 3 4 5 6 7 8 9
SCALE OF INCHES
PIVOT
PIVOT
STOP
STOP
GREEN-ENAMELLED HANDS
CHROMIUM-PLATED CLOCK FACE
GREEN-ENAMELLED SYMBOLS
BALL-CATCH
PIVOT HINGE
PLAN OF CLOCK FACE
1" CHROMIUM STRIP
AIR SPACE (NTS)
4"
¾"
5¼"
FACE OF PANELLING
½"
1½"
EBONY SKIRTING
BLACK BELGE BASE

Radiator casing with clock in the chief architect's office. The chromium-plated clock face is in keeping with the decorative bands of the same material.



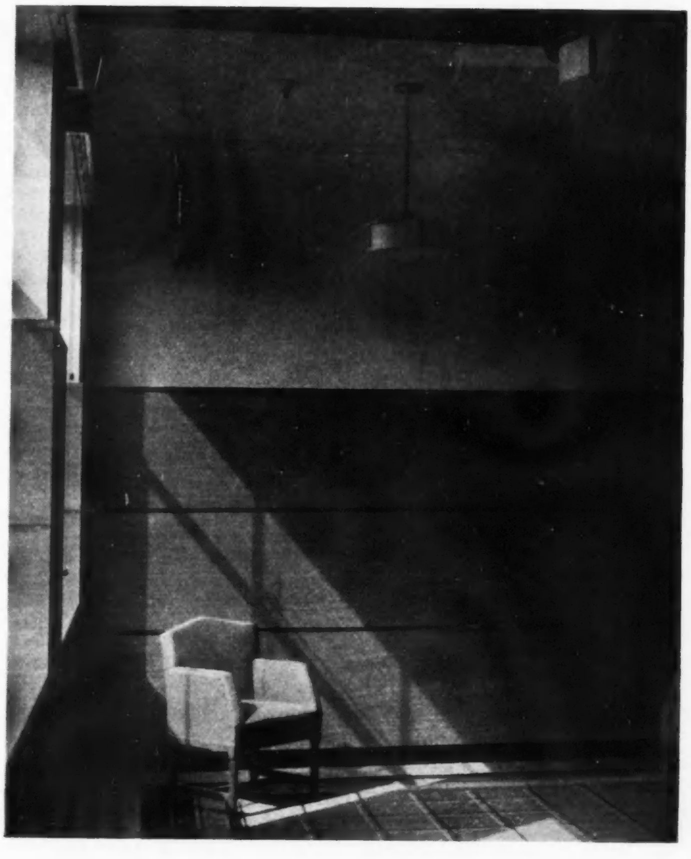
The panelled boardroom, with plaques of municipal arms. The Australian walnut is of exceptional size: 12 ft. panels and 14 ft. pilasters.

CO-OPERATIVE SOCIETY'S LONDON BRANCH:

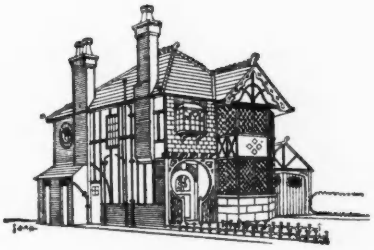

½" LAMINATED AUS. WALNUT
¾" LAMINATED AUS. WALNUT
21oz CLEAR GLASS
HINGE
FRAME CUT OF 2½"×1" SOLID AUS. WALNUT (INSIDE)
PLAN THRO' GLAZED DOORS TO BOOKCASE
1 0 1 2 3 4 5 6 INCHES
1"×⅛" METAL
7'-0" 10 GROUND
½" LAMINATED
5 PLY TOP
NOTE: BOTTOM OF DOORS TO STOP ON SHELF AS DOORS UNDER COUNTER
AUS WALNUT STOP
5 PLY
1¼" LAMINATED AUS. WALNUT DOOR (VERTICAL GRAIN)
SECTION THRO' HEAD TO WARDROBE
(SECTION THRO' HEAD TO BOOK CUPBOARDS SIMILAR, BUT WITH DOORS AS SHEWN ON PLAN)
1¼" AUS WALNUT DOORS & FRAMING TO WARDROBE (LAMINATED)
ROUGH FRAMING
5 PLY LINING
½" LAMINATED BOARD
1¾" FLUSH AUS. WALNUT DOOR
AUS WALNUT LINING & ARCHITRAVE
LAMINATED BOARD INSET ABOVE THIS MEMBER
HINGE
HINGE
¾" AUS LAMINATED DOORS & FRAMES TO CUPBOARD
5 PLY LINING
5 PLY LINING
NORTH WALL

The drawing and photograph on this page show details of a built-in panelled fitment in a private office on the first floor; it provides a wardrobe, bookcase, shelving and cupboards. The upper view on the facing page is of the raking of the wall members that carry the roof above the top floor; the lower, one of the sub-committee rooms, of which a number are provided on the second and third floors.

L. G. EKINS, ARCHITECT



WHAT IS TO BE DONE ABOUT



THIS?

[*That the Housing Act, which has just received the Royal assent, will remove the subsidy for small houses, is well known. But, as the author of the following article points out, the arrangements made by the Government with the Building Societies are not so well known. He therefore explains the full meaning of Section 2 of the Act, and suggests that it provides little, if any, incentive to the building societies to advance money needed for the construction of small working-class dwellings to let, with the result that this type of work will, unless some remedy is provided, come to a complete standstill. Thus, the Government will have to replace the subsidy, or develop rapidly the establishment of a National Housing Corporation.*

The following have already appeared:—(March 29) 1. The Speculative Builder, by Penates; (April 5) 2. The Speculative Architect, by Edwin Gunn; (April 12) 3. Building Without Guidance, by Stanley Cc Ramsey; (April 19) 4. What the Public Want, by Edwin Gunn; (April 26) 5. Th) Housing Problem, by Percy Morris; (May 3. 6. The Building Centre Competition, by E. Maxwell Fry; (May 10 and 17) 7 and 8. How the Architect can use the Building Societies, by H. C. Burdett.—ED., *A.J.*]

9. The Housing Act

[*By our Parliamentary Correspondent*]

EVERYONE, of course, knows that the main purpose of the Housing Financial Provisions Act, which passed through its various stages in both Houses of Parliament after somewhat protracted debates, is to withdraw the State subsidy (including the subsidy given under the 1930 Act for rural housing) for all purposes except the purpose of slum clearance.

But what everyone does not know is the full meaning of Section 2 of the Act, which embodies the arrangements made by the Government with the building societies.

It was stated, during the second reading debate in the House of Lords, that, of all forms of private enterprise which concerned themselves with housing, building societies had by far the

greatest resources and experience in financing the building of houses. Out of 2,000,000 houses constructed since the war, no fewer than 1,000,000 had been constructed through the agency of these societies. The Government, therefore, had decided to call to their aid the large reserve funds possessed by these societies.

Normally, building societies lend 70 per cent. of the cost of the houses required. Under the scheme of the Act they are to lend 90 per cent. The 20 per cent. gap thus left will be bridged over as regards one-third by the State, one-third by the local authority, and one-third by the building society.

As a concrete instance of the procedure to be followed under the Act, let us suppose that a private builder desires to erect a group of small houses to let. He will apply to a building society—any one he chooses—for an advance up to 90 per cent. of the cost. The building society, if it approves the scheme, makes this advance and charges a rate of interest which today would be only 3 per cent. If the local authority also approves the scheme, it guarantees about 6 per cent. of the cost. If the Ministry of Health approves as well, it also guarantees a further 6 per cent. of the cost. Thus the building societies undertake to finance, on terms quite favourable to the builders, the construction of small houses to let, provided they receive a guarantee from public authorities of the money advanced.

During the discussions in the House of Commons a good deal of cold water was poured on the scheme, and many members declared that the building societies, as a whole, were reluctant to work it. To this allegation Sir Hilton Young, the Minister of Health, retorted that the plan had been put forward voluntarily by the building societies. It was their own suggestion. It had been framed, quite frankly, by them to meet their own particular needs, which they believed were in accordance with the needs of the country. He had been in touch with nine societies which were prepared to operate the scheme, and those nine societies had capital assets of the value of £150,000,000. The House would therefore see that the Government had " enlisted powerful forces."

Apprehension has also been expressed lest the new scheme should mean a lowering of the national standard of housing. On this point, too, the Minister has given assurances. There is, he states, no danger of a reduction in the national standard. Although he admits that the conditions imposed when the subsidy was in force will go under the new Act, yet it will still be the duty of local authorities to maintain the standard of housing. They can do this, first, because their assent is necessary to the guarantee for building-society money; and, secondly, under the general powers they now possess through the Town Planning Act of last Session.

To sum up, while one has no desire to condemn the scheme before it has been properly tried out, there is a very general feeling, particularly pronounced in building-society circles, that the Act is a peculiarly hopeless piece of legislation. It provides little, if any, incentive, to the building societies to advance the money needed for the construction of small working-class dwellings to let, and the probability is that the construction of this type of house will, in a short time, be almost at a standstill.

In that event, the Government will be compelled, by the force of public opinion, either to replace the subsidy or to develop rapidly the scheme for the establishment of a National Housing Corporation.

The Moyne Committee is " exploring " the suggestion of the setting up of such a Corporation, and it is to be hoped, for the sake of the future of working-class housing, that this exploration will not be unduly prolonged.

EASY TERMS
PLANS APPROVED

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright Reserved.

Plaster Setting Coat Failures

¶ *THE proprietors of an hotel reported the failure of a large number of setting coats to plaster ceilings. The floors on which the ceilings had been placed were constructed of hollow clay tiles and concrete; some ten months had elapsed between the completion of the concreting and application of the plaster. The original finishing coats had come away over large areas in various rooms of the hotel, and it was stated that they were composed of 1 part sand (by volume) to 2 parts white hydrated lime, gauged with a coarse gauging plaster. The composition specified for the undercoats was in every case as follows:—render coat: 1 part Portland cement (by volume) to 3 parts sand; floating coat: 1 part grey hydrated lime to 3 parts sand with an addition of about 10 per cent. Portland cement.*

In an attempt to arrive at the most suitable mixing proportions and type of material to use for the final coats, the plasterers had tried a number of experimental ceilings, and in every case they, too, had come away from the undercoats with surprising regularity. The mixes of these final coats had been varied, using different porportions of coarse gauging plaster and a Keene's cement. Certain chemical investigations had also been carried out.

The work was inspected and the sample of failed plaster brought away for examination was stated to be composed of 1 part sand (by volume) to 1 part *hydrated lime, gauged with about 10 per cent. of a Keene's cement.*

It was understood that, from an acoustical point of view, the architect to the building deprecated the use of any type of plaster other than a lime plaster.

(NOTE.—*This failure is similar to one recently included in these notes, but in view of the somewhat unusual circumstances of the case it appears to be a problem of especial interest.*)

The undercoats (floating coat and rendering) seem to be sound and hard, and should provide a satisfactory base for the application of a finishing coat. The floating coats on the two ceilings inspected seem to be considerably harder and stronger than would be expected of plaster conforming to the specification.

It is a matter of considerable difficulty to determine the cause of the failures with absolute certainty; it has been frequently found in cases of this kind that manipulative errors are not indicated by any chemical or physical tests which can be carried out on the set plaster. From the account given of the chemical investigations it would appear unlikely that the lime or cement were in any way defective and the excellent condition of the floating coat supports this view.

It appears most probable that the failure of the original setting coat may be ascribed to a combination of two circumstances:

1: Overworking of the gauged plaster, so that the early set of the coarse plaster was "killed."

2: Extraction of the moisture from the finishing coat due to the dry condition of the background. The powdery condition at the back of the setting coat where failures occurred is typical of this kind of failure. The long period which elapsed between the completion of the floor concreting and the application of the plaster may well be a contributory factor. It is often found that the hollow tiles used in floor construction exhibit a high capillary suction.

The failure of the second batch of setting coats with the Keene's cement gauging may well be due to the second of the causes indicated above. It would be difficult to ensure that the background was sufficiently wetted to take advantage of the comparatively slow development of strength of the Keene's cement addition. In any case it should be noted that in the absence of any formal specification, cements marketed as Keene's may vary widely in composition and properties, and there is no guarantee that the user will obtain the traditional hard-burnt, acid accelerated type of plaster.

It seems, therefore, that in replacing the setting coats it would be desirable first to reduce the suction of the background by vigorous use of the water brush, supplemented in areas of particularly high suction by a coat of size; then to apply a plaster having a definite controlled period of setting, such that it can be applied within reasonable time for working, and yet develop adequate strength before the moisture is lost to the dry background. A calcium sulphate plaster of the retarded hemihydrate type, of which there are a number of reputable brands available on the market, would be the most suitable. Care should be taken to ensure that the material delivered to the job is of the type actually specified, since plasters of different types demand different handling. It will, of course, be necessary to clean off all loose powdery material adhering to the floating coat.

In view of the fact that the conditions on this job are evidently difficult, it is suggested that a neat or lightly sanded finish, without any lime addition, is to be preferred. This should give a reasonably porous surface which will provide an excellent background for decoration where, in view of the delays which have already happened, no doubt some haste will be desirable. The plaster can be worked for a period of about 1½ hours, but all material must be used up within 2 hours of the addition of water. Rigorous supervision on this point is absolutely essential to the success of the work.

It may be mentioned that any advantage which a lime plaster finish may possess in respect of sound absorption will be completely lost when the absorbent surface is decorated. Moreover, there is no reason to suppose that a lime plaster on a solid background will have any advantage over a hard plaster in respect of sound transmission. The only case where it is likely that a lime plaster may possess some advantage is for ceilings on lathing; it is possible then that the harder plaster may act as a resonant membrane.

Disintegration of Facing Bricks

¶ A*T the request of a housing company an inspection was made of the brick facings of a large block of flats. The flats had been built about 35 years and something like four years ago it was first noticed that the facings, of red sand-faced bricks, pointed in cement mortar, were weathering badly. The deterioration has progressed steadily and reached such serious proportions that recently it became necessary to adopt remedial measures at once, since damp penetration was occurring in the affected areas, which were of considerable extent. The surveyor to the company proposed to render the walls in a cement and sand mortar but first desired the opinion of the Station as to the suitability of this remedy.*

It is most likely that disintegration of the brickwork has been caused by the soluble salts contained in the bricks. These salts are conveyed to the outer face of the brickwork, and on the evaporation of moisture at this face crystallization takes place, leading to flaking of the face of the brick; this action will have been greatly aggravated by the cement mortar with which the brickwork has been pointed. If a cement rendering is to be used it must be accepted that there is some risk of failure, since the brickwork in this case is by no means an ideal background.

Unfortunately there is no simple alternative which we can suggest; any form of surface treatment of the nature of a paint, or similar waterproof film, would probably flake rapidly, due to crystallization of the salts which are causing the bricks to decay. In certain other cases where repeated attempts to apply cement renderings have proved unsuccessful, it was finally found necessary to adopt a more elaborate treatment, in order to keep the rendering out of contact with brickwork containing considerable amounts of salts and to prevent the penetration of moisture. One method, which has proved satisfactory on a large factory office block, consisted in the following:—

A coating of a bituminous preparation was first applied to the brickwork to serve as a waterproofer. Expanded metal, or similar lathing, was then secured to plugs in the brickwork, so that it was just clear of the surface. Cement rendering was then applied to the lathing, using a carefully graded sand and keeping the mix as lean as possible; the new rendering was kept damp for a period of about two weeks after completion. The latter precautions were intended to minimize the formation of shrinkage cracks.

To summarize, in the present case the following methods may be adopted for the main block of buildings:—

1. To cut out and replace the worst of the defective bricks from time to time. Any repointing to be carried out in a lime mortar lightly gauged with cement. Moisture penetration to be dealt with locally according to the nature of each specific case.

2. To apply cement rendering as suggested, accepting that there is a definite risk of further trouble. A well-graded sand should be used and the mix should be kept as lean as possible. Damp curing for ten days is very desirable.

The effect of a cement slurry, brushed on to the brickwork at cream consistence as a base for cement rendering, is being tried out at the Building Research Station. The results so far are very promising and it seems that much better adhesion of the rendering may be secured. The slurry should be applied about twelve hours, and not more than forty-eight hours at most, before applying the undercoat of the rendering.

3. To apply cement rendering on lathing over a waterproof film as indicated above. This should be effective but the cost will be considerable.

BUILDING

FACTS AND FIGURES

3. Housing Costs

[*By* L. J. GOLLOP]
B.Sc. (Econ.) F.S.S.

THE average building cost of houses, excluding charges for land, roads, sewers and fees, in respect of which tenders were let or direct labour schemes approved during the first quarter of 1933, was £295 for non-parlour and £366 for parlour houses.

The more important figure is that for non-parlour houses, as dwellings built under subsidy are predominantly of this type. Similar figures for the last four years are as follows :—

Average building cost of non-parlour houses

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	£	£	£	£
1929 ..	339	349	343	349
1930	335	335	337	351
1931 ..	345	321	333	327
1932 ..	321	310	304	298
1933 ..	295	—	—	—

This table admirably indicates the progressive decline of building costs in recent years, broken only by minor and seasonal movements, and a somewhat more than seasonal increase in the fourth quarter of 1930.

The figure of £295 for the first quarter of 1933 is the lowest ever recorded in this series of figures—which goes back to 1924—and is no less than £153, or 34 per cent., below the figure for the fourth quarter of 1926 (£448), the highest recorded.

The movement of these figures since 1924 may be indicated by comparing the first quarter of each year.

Average building cost of non-parlour houses

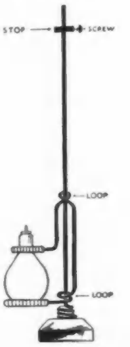
First quarter of :	£	First quarter of :	£
1924	398	1929	339
1925	435	1930	335
1926	442	1931	345
1927	425	1932	321
1928	368	1933	295

This progressive tendency to lower costs gives an important clue to the movements of the statistics of building plans discussed in my previous article (May 10). It also provides additional support to the conclusion then reached that housing, under the stimulus of low costs and interest rates, may be expected to go ahead during 1933. This is also reflected in the fact that unemployment in the building industry on April 24th had been reduced to 198,017—the lowest figure since September, 1931—while the number unemployed in public works was 122,057—21,000 above the figure for April, 1932, and 64,000 above the corresponding figure for 1931.

As *The Economist* of May 20th remarks, "throughout the 'economic crisis' the demand for dwelling houses, chiefly of the smaller types, has been a mainstay of the building trades."

The Mackintosh Frieze

The Quarterly Illustrated of the Royal Incorporation of Architects in Scotland asks the question : "Should architecture be taught in our schools ?" It would certainly give laymen, it states, an architectural vocabulary and make them conversant with our terminology. Quite recently an architect entered a certain restaurant and asked to be shown the Mackintosh frieze. Great was his surprise when he was handed the cold menu, and was told that the ices were "off" today.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Scale Buoys

FOLLOWING the appearance of letters dealing with "Scale Buoys" in our issues for May 3, 10 and 17, I have been asked to give the method of application and cost of this unconventional device for which is claimed power to remove scale deposits from boilers and pipes of domestic hot water systems, and to prevent further accumulation.

●

That scale in a boiler is a very expensive nuisance is evident from the fact that a $\frac{1}{8}$ in. thick deposit means a 15 per cent. increase in fuel cost, whilst a $\frac{1}{2}$ in. deposit may entail an increase of anything up to 150 per cent.

●

I understand that when Scale Buoys are used installation cost is negligible, and there are no charges for chemicals or electricity. The existing water system is not altered and there is no need for affected pipes to be replaced. The buoys are hermetically sealed and should last indefinitely. Once installed they are supposed to function automatically.

●

When shaken in a clear light they give evidence of an electrical discharge. No chemical change is shown in the analysis of the water, but, in spite of that, Scale Buoys so alter the salts or scale-forming matter in solution in the water that when the water is heated, instead of crystals forming hard scale they precipitate in the form of sludge, which can be dealt with easily.

●

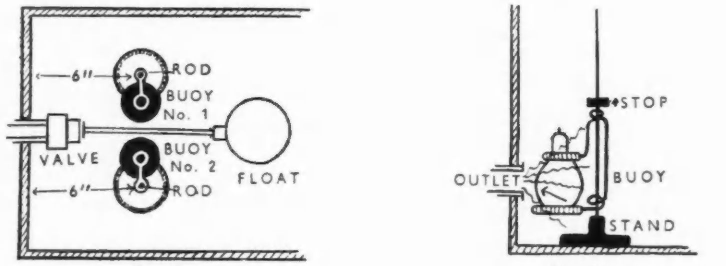
The buoys cost 50s. each. One is sufficient for a 50-gallon supply tank if the water does not exceed 20 degrees of hardness. Two should be used in a 100-gallon tank and one buoy added for every additional hundred gallons capacity.

●

The best results are obtained if the buoy is placed in the part of the cold water cistern in which water is most likely to circulate freely. Where a single buoy is installed, the rod should be placed as near the arm of the ball-cock float as possible, but with sufficient space to allow it to swing around without touching either the arm or the side of the tank. The rod should be about 6 ins. from the side of the tank (Fig. 1).

●

Where two buoys are installed, the positions indicated in Fig. 2 are recommended. If more than two are used, the stop should



ELEVATION PLAN

Fig. 1.

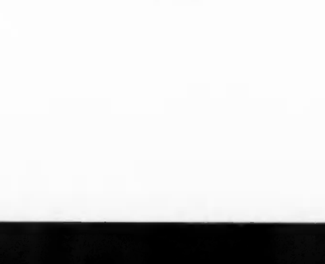


Fig. 2.

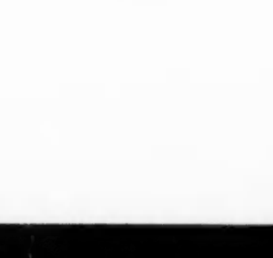


Fig. 3.

be allowed to slide down the rod until the buoy is held at the level of the outlet pipe supplying the hot water system (Fig. 3) and placed about 1 in. away from it. Additional buoys should be placed symmetrically about the tank, with the rods from 6 ins. to 9 ins. from the side. Where intercommunicating tanks are installed, buoys should be placed near each tank-to-tank connection (Fig. 3).

Synthetic Resin Plastics

I went last week to the Plastics Industry Exhibition at the Science Museum, South Kensington, which has been arranged to demonstrate the production methods and "modern" applications of plastic materials. As the Exhibition will remain open to the public for several months it may not be too much to hope that those responsible for the modern application section will replace some of the exhibits by others of more intelligent design, if only to do justice to the technical side.

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Here is a manifestation of the muddled outlook of the age we live in: intensive scientific research, years of patient experiment, fortunes spent in the development of an industry and machinery, and, at an exhibition organized to demonstrate progress, held in the Science Museum, we find a host of "arty" imitations of tortoiseshell, wood and marble, and scarcely any sign of exploitation of the inherent qualities of the new material.

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Anything more puerile than the lamp shades, wireless cabinets, clock cases and door knobs it is difficult to imagine, and I should have left the Museum with a poor opinion of the material itself had it not been for the exhibit of telephone instruments, designed for service, with no elaboration to interfere with utility; and a small room, in a central position, for which furnishings and fittings were designed to demonstrate the architectural use of plastics. The walls were lined with squares of orange Beatl and the doors faced with brown and black Bakelite.

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Plastics have been described as materials that take shape or form by the application of heat, with or without pressure, and retain shape on cooling: the basic materials are

Natural resins.
Cellulose (nitro-cellulose and cellulose acetate).
Casein (from milk).
Synthetic resins (derivatives of coal).

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In the synthetic resin group are the plastics most likely to be of interest to architects. The principal members of this group are the phenol-formaldehyde resins (phenol from coal tar) and the urea-formaldehyde resins (urea is a product of carbon dioxide and ammonia). From the phenol we get Bakelite and from the urea Beatl.

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Both are produced in the form of moulding powders, which harden permanently under heat in hydraulic presses. Wood flour or wood meal (triturated sawdust) is added to the powder to counteract brittleness.

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In the course of a lecture, delivered at the opening of the Exhibition, Mr. H. V. Potter, Chairman of the Plastics Group of the Society of Chemical Industries, speaking of synthetic resin plastics, said the first of these to be developed commercially was Bakelite, named after its inventor, Dr. Baekeland. This class of plastic was dependent on two common natural materials, coal and wood. From coal came carbolic acid or phenol, and from wood, wood spirit and finally formaldehyde. Today there were many other methods of obtaining formaldehyde, and wood spirit was little used.

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These materials chemically reacted together to give a hard transparent amber-like body which was inert in many solvents, chemicals and conditions and was a relatively good insulator. Another member of this class was "amino resin" in which urea or thiourea was used instead of phenol. This produced a water-white or opaque product. It was the introduction of the synthetic resin plastic products that had brought the industry to the forefront in recent years. These synthetic resinoid plastics readily flux under heat and pressure and are introduced into a steel mould in which the design of the final article is cut or engraved on the opposite or negative form; when subjected to heat and pressure the material rapidly fuses and takes the shape of the containing mould, chemically hardens, and can be ejected from the mould in the solid finished form. "The phenolic type is used to form black and brown switches, lamp-holders and other electrical equipment, in dark warm colours, while the amino class is no doubt well recognized in the moulded beakers and cups for picnic sets, etc., with very artistic and attractive colour effects," said Mr. Potter.

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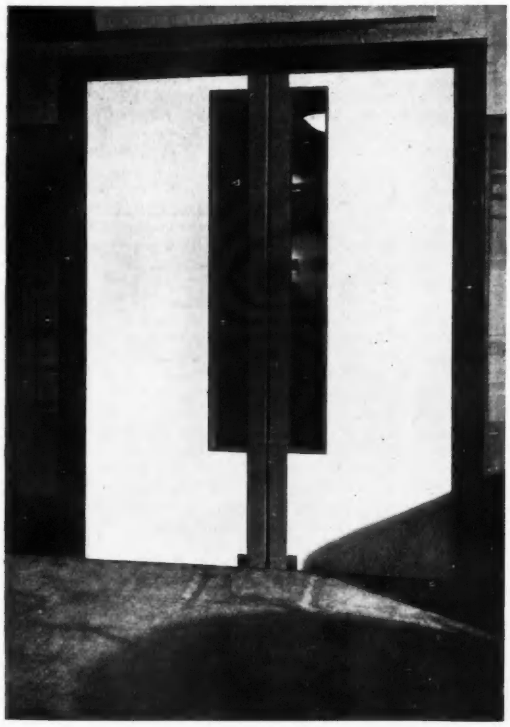
Although comparatively new, the plastics industry represented a turnover of £20,000,000 and employed many thousands of persons. The lecturer was sure that it would play a very important part in the industries of the country, and the artist, the architect, and the engineer had available for their use a new material offering almost unlimited possibilities. Finishes could be produced during manufacture and the costly process of subsequent application eliminated; flat colour surfaces, previously only obtainable by a long process of painting and polishing, became an integral part of the plastic product, and it was now possible to produce sheets of plastics which were fire-and water-resistant, relatively flexible, machineable and in some cases chemically resistant.



Double doors to a studio at Broadcasting House, veneered with a yellow composition resin board. The metal frame and meeting stiles are cellulosed.

Architect: Raymond McGrath.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Rent Restrictions Bill

THE Rent and Mortgage Interest (Restrictions) Amendment Bill, which is the second step in the Government's housing policy, has been read the third time in the House of Commons by 301 votes to 6.

Sir Hilton Young, Minister of Health, speaking during the third reading debate, said that the Bill directly affected 7,000,000 houses. The interests of both owners and occupiers had been considered in a spirit of fair play. Already they had seen some improvement in the building activity of the country, and it was reasonable to think that the new direction which the Government had given to housing policy had been in part responsible for the improvement in employment in the building trade. Since last January unemployment in that trade had decreased by some 100,000 persons. That improvement was partly seasonal, but it was precisely double this year what it was last year and the year before.

The principal object of the Bill, which was part of the housing policy of the Government, was to maintain a pool of small houses available for the lower-paid wage-earners during the remainder of the period when it might be anticipated that the supply of these houses would not equal the demand. The Act would operate for a fixed period of five years—a reasonable period to allow for those forces which were at work in increasing the supply of the smaller type of houses to such a point as would make it safe to decontrol the "C" class of houses. The measure secured a most important condition for the future, namely, that control should not continue in an automatic manner year after year. For the first time a wage-earner who was looking for a house would be able to be quite certain whether the house to which he was going was controlled or decontrolled. This information would be provided by a register of houses. Sub-tenants were protected against the profiteering of the direct tenant by the provision which enabled the owner to turn out the profiteering tenant by recovering the full possession of the house. Powers were given to local authorities to supply information and advice to tenants as to their rights. From the point of view of the owners the Bill established the principle that the owner was entitled to the possession of a house where he could prove that there was alternative accommodation, or a house of the same kind, available for the tenant. Society as a whole was benefited by the provisions against the overcrowding of houses by tenants and the sweeping away of unnecessary restrictions on investments in house property; thus, by making such investments more attractive, leading to a greater supply of houses and consequent reductions in rents. Encouragement was given to the reconditioning of houses by enabling the owner to charge a fair return on the money he spent for that purpose. Dispossessed owners of shops and business premises were given the right to compensation.

Price of Bricks

At question-time Mr. Soper asked the Minister of Health whether his attention had been called to the increase in the price of bricks; and whether any steps could be taken to prevent it.

Mr. Shakespeare said that the Minister's attention had been called to some increases in the price of certain sorts. He understood that a recent increase of demand had interfered in places with the ordinary adjustment of supply to demand.

Trade Items

Many architects are probably unaware that Messrs. W. H. Gaze and Sons, Ltd., of London and Kingston, are one of the few firms in this country that can undertake—with their own men—the whole of the work entailed in the erection of a building, right down to the last detail of its equipment. This complete service to the architect—possibly unique in its scope—is only possible by the excellent organization of the various departments of the firm. These departments, each under the direction of a specialist, include the following: Building, decoration, furnishing, heating, lighting, wrought iron work, landscape gardening and hard tennis courts.

Gaze's tennis courts are well known for their cheapness and efficiency. They have been chosen three consecutive years for the British Hard Courts Championships; selected year after year for Davis Cup contests; and purchased by numerous private clients, hotels, firms, councils, boroughs, hospitals, sports and tennis clubs, etc. As an example of their quality we may point out that the London General Omnibus Company and associated Electric Railways, after every test, are now standardizing Gaze's "Grass-Green" hard courts in all their sports and recreation grounds.

Philip J. Turner, F.R.I.B.A., F.R.A.I.C., the newly-elected President of the Quebec Architectural Association.

To appreciate the craftsmanship displayed by the firm's staff in the execution of gardens and garden ornaments, one has only to visit the Gazeway. Here, on the main Portsmouth Road at Surbiton, are acres of model gardens of all types and sizes, any of which Gaze's will re-create on your own land. Here, also, is a large selection of ornaments. The firm, as usual, are exhibiting at the Chelsea Flower Show, which opens tomorrow, May 25. Thus, those unable to visit Gazeway, are afforded an opportunity of appreciating the high standard of work reached by Gaze's.

The main feature of their exhibit consists of a summer house of unique design overlooking a garden with simple undulating lawn and massed flowers arranged in shades of blue complemented with bright green and grey foliage. The summer house, of Surrey sandstone, stands in one corner of the site with a mass of evergreens as a background, and on each side a bank with grassy slopes and occasional outcrops of rock on which are growing masses of alpines, semi-aquatics and ferns. The approach to the summer house is by a flight of stone steps leading to the floor level. Projecting from the summer house is an old oak balcony adorned with trailing flowers, and this leads to a winding path with occasional rock steps. The water starts on one side of the summer house and feeds a small lake beneath. The firm's object has been to obtain the effect of a restful and quiet retreat with a still, clear pool reflecting the overhanging balcony and summer house.

*

Messrs. G.V.D. Illuminators announce that they have secured a contract for lighting the whole of the shop windows at British Industries House, Marble Arch [lately Gamages (West End), Ltd.], which is being adapted to form a permanent centre for overseas buyers.

The same firm recently completed the installation of a lay light illuminated on the G.V.D. system at the Tate Gallery, to the instructions of H.M. Office of Works. This system is also being incorporated in the lighting arrangements for the World Economic Conference, which is to be held in the New Geological Museum, S. Kensington.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors and some of the sub-contractors for the buildings illustrated in this issue:

Worthing Town Hall (pages 682-687 and supplement). General contractors, Trollope and Colls, Ltd. Engineer, Burnard Geen, M.INST.C.E. Quantity Surveyor, H. J. Venning, F.S.I. Heating and ventilating, Dr. Oscar Faber, O.B.E. Marble and mosaic decoration: Gilbert Bayes. Sub-contractors: Powers and Deane Ransome's, Ltd., steelwork; Rosser and Russell, Ltd., heating; Grierson, Ltd., electrical installation; Empire Stone Co., artificial stone; F. de Jong & Co., plaster; Art Pavements and Decorations, Ltd., terrazzo; Ragusa Asphalte Paving Co., asphalt; Cork Insulation Co., Ltd., cork insulation; May Acoustics, Ltd., acoustic engineering; C. E. Welstead, Ltd., laylights and casements; Bainbridge Reynolds, Ltd., metalwork; Hammond Bros. and Champness, Ltd., lifts; Chatwood Safe Co., strong room doors; Stevens and Adams, wood block flooring; Leyland and Birmingham Rubber Co., rubber flooring; Stirling and Johnson, Ltd., slating and tiling; Osler and Faraday, light fittings; H. Pontifex and Sons, Ltd., sanitary fittings; Gillett and Johnson, Ltd., clocks; Dictagraph Telephones, Ltd., inter-communicating telephones; Chance Bros. & Co., Ltd., glazing; John P. White and Sons, Ltd., joinery and fittings; Heal and Son, Ltd., furniture; Yannedis & Co., ironmongery; Mander Bros., paint; Tuke and Bell, Ltd., sewage ejector; Ewart and Sons, Ltd., copper to turret; Eric Munday, Ltd., sign-writing.

Worthing Municipal Buildings: The Clinic. General contractors, Frank Sandell and Sons. Engineer, Burnard Geen. Quantity Surveyor, H. J. Venning. Sub-contractors: Concrete, Ltd., concrete flats; Grierson, Ltd., Dulrae heating; Empire Stone Co., stonework; Henry C. Parker & Co., brickwork; Art Pavements and Decorations, Ltd., terrazzo; C. E. Welstead, Ltd., metal casements; Bainbridge Reynolds, Ltd., metalwork; John P. White and Sons, Ltd., doors; Osler and Faraday, Ltd., light fittings; H. Pontifex and Sons, Ltd., sanitary fittings; Yannedis & Co. ironmongery; Mander Bros., paint.

New Administrative Building for the Co-operative Wholesale Society (pages 691-697). Sub-contractors: The Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, reinforced concrete construction; Dorman Long & Co., Ltd., constructional steelwork; J. A. King & Co., pavement lights; Henry Hope and Son, Ltd., and Crittall Manufacturing Co., Ltd., metal windows; May Acoustics, Ltd., insulating and sound absorbing quilting; Honeywill and Stein, sound absorbing plasterwork; H. T. Jenkins and Son, Ltd., and John Stubbs, Ltd., marble work; Cooper Wettern & Co., Ltd., granite work; Emerson and Norris, artificial granite; Cashmore Art Metal Workers, cast lead work; Nicholls and Clarke, glass wall linings; Faience and Tile Crafts, wall and floor tiling; Walter Cassey, Ltd., hardware and metal fittings; Wm. Mallinson and Sons, Ltd., and James Latham, Ltd., Empire hardwoods and veneered panels; Jos. F. Ebner, hardwood flooring; General Electric Co., Ltd., Troughton and Young, and J. W. Mutlow, electric light fittings; Mather and Platt, Ltd., sprinkler installation; G. N. Haden and Son, Ltd., heating and ventilating; Waygood-Otis, Ltd., hoists; Chatwood Safe Co., Ltd., bank strong rooms; Lamson Pneumatic Tube Co., pneumatic carrier system; R. Fox and Sons, cellulose decorations; Shanks & Co., Ltd., sanitary fittings; Mansfield Bros., partition blocks; Stoneware, Ltd., facing bricks; Roberts Adlard & Co., Ltd., roofing tiles; Grovebury Brickwork Co., white bricks.

Austin Reed's, Ltd., Birmingham (pages 688-9). General contractors: Richard Fenwick, Ltd., Sub-contractors: Harris and Sheldon, Ltd., shopfitters; Tyler and Freeman, electric light; Fenning & Co., marble.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed by the ACTON Corporation : Alterations and additions, factory, Western Avenue, for Messrs. Wallis, Gilbert and Partners ; factory, Western Avenue, for Sir Aston Webb and Son ; alterations and additions, factory, Worple Way, for Mr. M. W. Matts ; 5 shops and flats, Western Avenue, for Messrs. Davies and Knight ; 10 shops, Crown Street, for Messrs. T. Poore and Son ; factories, Western Avenue, Acton Lane, etc., for Mr. F. E. Simpkins.

The ACTON Corporation is to prepare plans for the erection of 42 flats, on a site in Canada Road.

Plans passed by the CROYDON Corporation : 22 garages, workshop and stores, Handcroft Road, for Mr. A. Abbott ; three houses, Hartland Way, for Messrs. Burcote, Ltd. ; seven shops and flats, 424-6 Brighton Road, for Mr. A. E. Batzer; church, Hatch Road, for Messrs. Murrell and Pigott ; alterations and additions, 6, Westow Hill, for Express Dairy Co., Ltd. ; 40 houses, Ockley Road and Therapia Lane, for Messrs. Wates (Streatham), Ltd. ; seven houses, Bridle Road, for Mr. G. Peskett ; church, St. Oswald's Road, Norbury, for St. Oswald's church council ; four houses, Birdhurst Rise, for Mr. O. Law ; fives court, and pavilion, Whitgift School, Haling Park, for Messrs. E. H. Smith (Croydon), Ltd. ; eight houses, Croydon Road, for Mr. M. Robinson ; 75 houses, Thornton Avenue, for Messrs. Thomas and Son ; 13 houses, Sandfield Avenue, for Messrs. H. Williams, Holliday and Partners; offices, 88-90 George Street, for Messrs. Gale, Heath and Sneath ; alterations, 51 London Road, for Messrs. E. Holbrook and Son ; six houses, Kingsdown Avenue, for Messrs. Morgan, Baines and Clark ; two bungalows, Woodmere Close, for Messrs. E. B. Hart & Co. ; 10 houses, Craignish Avenue, for Messrs. Polden and Authers, Ltd. ; 12 garages, Tavistock Road, for Industrial Builders, Ltd. ; 30 stables, Handcroft Road, for Messrs. H. L. Groom and Sons.

The CROYDON Corporation has prepared a revised scheme for the erection of a concrete cooling tower at the power station, at a cost of £30,920.

The CROYDON Corporation is to obtain tenders for the erection of 56 houses and 36 flats, on the Old Town clearance site, and 12 houses on the Waddon housing estate.

The L.C.C. is to erect a hospital block at the DARENTH training colony, at an estimated cost of £13,370.

The FULHAM B.C. has approved revised plans for extensions at the Town Hall, at a cost of £20,200.

The Essex C.C has prepared a scheme for the erection of additional buildings at the Suttons Branch Institution, HORNCHURCH, to provide accommodation for 430 beds, at an estimated cost of £222,000.

The Essex Education Committee has prepared plans for extensions at Greys Bridge Road School, ORSETT, at a cost of £12,000.

The Essex C.C. is to extend the nurses' home at the ROMFORD institution, at a cost of £8,000.

The SHOREDITCH B.C. Housing Committee recommends proceeding with the rebuilding of the Dunston Road portion of the Stonebridge estate, on the basis of a scheme for the erection of 18 flats (six one-bedroom and 12 two-bedroom), and six maisonettes (two three-bedroom and four four-bedrooms), at an estimated cost of £12,590.

SOUTHERN COUNTIES

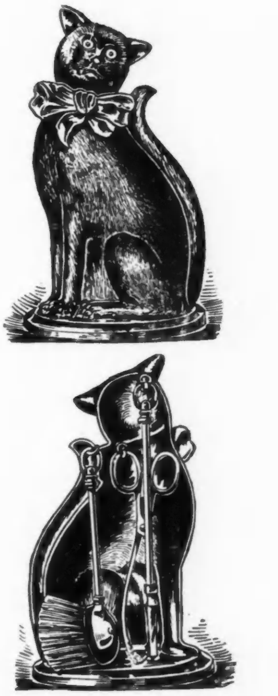
Plans passed by the GRAVESEND Corporation : Two houses, Church Lane, for Mr. A. Foster ; four shops and flats, Cross Lane West, for Mr. G. E. Clay ; shop, Hollybush Road, for Mr. A. E. V. Newnham ; two houses, St. James's Road, for Messrs. R. Hopkins and Sons ; two shops and flats, Central Avenue, for Mr. L. G. Ekins.

Plans passed at HASTINGS : Alterations, 24 Cornwallis Gardens, for Mr. J. S. D. Hicks ; four houses, Blacklands Drive, for Messrs. Jeffery and Bowcock ; two houses, Hoad's Wood Road, for Messrs. Henry Ward, Son and Wray ; alterations, 68 Marina, St. Leonards, for Messrs. Oxley and Burleigh ; additions, 35 Salisbury Road, St. Leonards, for Messrs. Henry Ward, Son and Wray ; conversion into nurses' home, The University School, Holmesdale Gardens, for Messrs. Callow and Callow ; additions to shop, 11 Bexhill Road, for Mr. G. F. Miller ; additions to building, Land View Terrace, Old London Road, for Messrs. Oxley and Burleigh ; alterations and additions to warehouse, 153-154 Queen's Road, for Mr. W. G. Harrison ; four bungalows, Adelaide Road, for Mr. H. H. Ford ; alterations, 1 Claremont, for Messrs. Oxley and Burleigh ; alterations to bakery, Beaconsfield Road, for Mr. J. Hunt ; four houses, Moscow Road, for Mr. J. Hunt ; additions, Filsham Place, Filsham Road, St. Leonards, for Mr. J. S. D. Hicks.

Plans passed by the HERNE BAY U.D.C. : Four houses, Grafton Rise, for Mr. Joiner ; two bungalows, Cobblers Bridge Road, for Mr. T. Bentley ; shop, Sea Street, for Messrs. C. S. Waller ; house and shop, The Broadway, for Mr. H. Pettman ; re-building Tower Hall and café, Tower Parade, for Messrs. Wilbee and Son ; additions, 15 St. George's Terrace, for Mr. Ewart Dixon.

The PORTSMOUTH Corporation has prepared a scheme for the construction of a large swimming bath, which will necessitate the construction of a sea wall, at Hilsea, at a cost of £3,615.

Plans passed by the PORTSMOUTH Corporation : Mission Hall, Hellyer Road, for Messrs. Stark and Howes ; five houses, Meredith Road, for Mr. R. J. Winnicott ; four houses, Amberley Road, for Mr. V. Dye ; four houses, Firgrove Crescent, for Mr. F. D. McLaren ; motor-bus depot, London Road, Hilsea, for Southdown Motor Service, Ltd. ; four bungalows, Carshalton Avenue, for Mr. E. W. Payne ; 38 houses, Dovercourt Road, for Messrs. G. and W. Mitchell ; three houses, Rivers Street, for Mr. J. E. Smith ; 10 houses, Meredith Road, for Mr. J. A. McDermott ; church hall, Mulberry Lane, for Mr. C. Hibberd.



The Lucky Black Cat (front and back views), a fireside set manufactured by Harry J. Pratt & Co., Ltd. It is finished black with various coloured bows, and is also obtainable in antique copper and antique brass finishes. Height 15 ins. Weight 8 lb.

NORTHERN COUNTIES

The CARLISLE Corporation Housing Committee has received sanction to borrow £16,347, for the erection of 30 slum-replacement houses at Orton Road, and 30 at Upperby.

Plans passed by the CARLISLE Corporation : Alterations, 72 Sheffield Street, for Mr. J. Little ; two houses, Roseberry Road, for Messrs. A. Blakeley and Sons ; four houses, Waverley Road, for Mr. A. Hoodless ; estate layout, Brampton Road, for Mr. H. E. Scarborough ; 12 houses and one shop, Orton Road, for Mr. H. E. Ayris ; two houses, Brampton Road, for Mr. H. E. Scarborough ; alterations to shop, English Street, for Messrs. P. L. Browne and Son ; alterations, Millholme Avenue, for Messrs. J. and R. Bell, Ltd. ; alterations, Fisher Street, for Mr. J. Vasey.

Plans passed by the DEWSBURY Corporation : Four houses, Moorlands Road, for Mr. J. A. Robinson ; 14 houses, Spen Valley Road, for Messrs. Mitchell Bros. ; two houses, Frank Lane, for Mr. Wilcock ; works additions, Huddersfield Road, for Messrs. Hartley Bros., Ltd. ; additions, stores, Market Place, for Farm Stores, Ltd.

Plans passed at SCARBOROUGH : Shop, 84-85, Newborough, for Messrs. M. Burton, Ltd. ; alterations to premises, Lower Clark Street, for Messrs. Swift and Sons ; additions to shop, 68 Castle Road, for Mr. A. C. Wells ; two houses, North Leas Avenue, for Messrs. J. Petch and Son ; conversion of house into two houses, 16 Oxford Street, for Mr. A. Briggs ; additions, 128 Prospect Road, for Messrs. J. Petch and Son ; two houses, North Leas Avenue, for Mr. A. E. Wright ; two houses, North Leas Avenue, for Mr. J. Sellers.

Plans submitted to the STOCKTON-ON-TEES Corporation : 22 houses, Grosvenor Road, etc., for Mr. G. P. Stainsby ; development, Craigwell estate, Durham Road, for Mr. C. W. Cummings ; 22 houses, Craigwell Crescent, for Messrs. A. McLeod, Ltd. ; two houses, Fairfield Road, for Mr. G. Crosby ; 16 houses, Whitfield Road, for Mr. T. E. F. Whitear ; alterations, Garrick Hotel, Yarm Lane, for Messrs. Camerons, Ltd. ; ladies' parlour, Baptist Tabernacle, Wellington Street, for Mr. T. W. T. Richardson ; six houses, Green Lane, for Mr. J. C. Watson, High Street.

SCOTLAND

The GLASGOW Corporation has prepared schemes for improvements and renovations at the various city halls, at a total cost of £6,000.

The GLASGOW Corporation is to alter and extend the marine divisional police headquarters, at a cost of £5,000.

WALES

Plans passed at SWANSEA : Flats, Carmarthen Road, for Messrs. Bennett Bros. ; conversion of house into two houses, Manseal Road, Bonymaen, for Mrs. A. Thomas ; additions, Lon Cedwyn, Cwmgwyn, for Capt. Kidman ; church, Dyfed Avenue, Townhill, for the Trustees of the English Congregational Church ; two houses, Gower Road, for Mr. A. J. Bevan ; two houses, Mumbles Road, West Cross, for Mr. T. H. Harris ; two houses, Goitre-fawr Road, for Messrs. M. Davies and Co. ; two houses, Maple Grove, for Mr. C. H. Wastell.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny	S. Wales & M.	1 5	1 0¾
A_3	Abingdon	S. Counties	1 4	1 0
A	Accrington	N.W. Counties	1 5½	1 1¼
A_3	Addlestone	S. Counties	1 4	1 0
A	Adlington	N.W. Counties	1 5½	1 1¼
A	Airdrie	Scotland	*1 5½	1 1¼
C	Aldeburgh	E. Counties	1 1½	10¼
A	Altrincham	N.W. Counties	1 5½	1 1¼
B_3	Appleby	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone	Mid. Counties	1 4	1 0
B_2	Aylesbury	S. Counties	1 2½	11
B_1	BANBURY	S. Counties	1 3	11½
B_1	Bangor	N.W. Counties	1 3	11½
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley	Yorkshire	1 5½	1 1¼
B	Barnstaple	S.W. Counties	1 3½	11¾
A	Barrow	N.W. Counties	1 5½	1 1¼
A	Barry	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke	S.W. Counties	1 3	11½
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley	Yorkshire	1 5½	1 1¼
A_3	Bedford	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley	Mid Counties	1 4½	1 0½
B	Bicester	S. Counties	1 2	10½
	Birkenhead	N.W. Counties	*1 7	1 2¼
A	Birmingham	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn	N.W. Counties	1 5½	1 1¼
A	Blackpool	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor	S. Counties	1 2½	11
A	Bolton	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford	Yorkshire	1 5½	1 1¼
A_1	Brentwood	E. Counties	1 5	1 0¾
A	Bridgend	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater	S.W. Counties	1 3	11½
A_1	Bridlington	Yorkshire	1 5	1 0¾
A	Brighouse	Yorkshire	1 5½	1 1¼
A_3	Brighton	S. Counties	1 4	1 0
A	Bristol	S.W. Counties	1 5	1 0¾
B_3	Brixham	S.W. Counties	1 2	10½
A_2	Bromsgrove	Mid. Counties	1 4½	1 0½
C	Bromyard	Mid. Counties	1 1½	10¼
A	Burnley	N.W. Counties	1 5½	1 1¼
A	Burslem	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE	E. Counties	1 4½	1 0½
B_2	Canterbury	S. Counties	1 2½	11
A	Cardiff	S. Wales & M.	1 5½	1 1¼
A	Carlisle	N.W. Counties	1 5½	1 1¼
B	Carmarthen	S. Wales & M.	1 3½	11¾
B	Carnarvon	N.W. Counties	1 3½	11¾
A	Carnforth	N.W. Counties	1 5½	1 1¼
A	Castleford	Yorkshire	1 5½	1 1¼
B	Chatham	S. Counties	1 3½	11¾
B	Chelmsford	E. Counties	1 3½	11¾
A_3	Cheltenham	S.W. Counties	1 4	1 0
A	Chester	N.W. Counties	1 5½	1 1¼
A	Chesterfield	Mid. Counties	1 5½	1 1¼
B_2	Chichester	S Counties	1 2½	11
A	Chorley	N.W. Counties	1 5½	1 1¼
B_2	Cirencester	S. Counties	1 2½	11
A	Clitheroe	N.W. Counties	1 5½	1 1¼
A	Clydebank	Scotland	1 5½	1 1¼
A	Coalville	Mid. Counties	1 5½	1 1¼
A_3	Colchester	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett	N.E. Coast	1 5	1 0¾
A_2	Conway	N.W. Counties	1 4½	1 0½
A	Coventry	Mid. Counties	1 5½	1 1¼
A_2	Crewe	N.W. Counties	1 4½	1 0½
A	Cumberland	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury	Yorkshire	1 5½	1 1¼
B	Didcot	S. Counties	1 3½	11¾
A	Doncaster	Yorkshire	1 5½	1 1¼
B_2	Dorchester	S.W. Counties	1 2½	11
A_3	Driffield	Yorkshire	1 4	1 0
A_2	Droitwich	Mid. Counties	1 4½	1 0½
A	Dudley	Mid. Counties	1 5½	1 1¼
A	Dundee	Scotland	1 5½	1 1¼
A	Durham	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale	S. Wales & M.	1 5	1 0¾
A	Edinburgh	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter	S.W. Counties	*1 4½	1 0½
B_1	Exmouth	S.W. Counties	1 3	11½
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood	N.W. Counties	1 5½	1 1¼
B_2	Folkestone	S. Counties	1 2½	11
A	Frodsham	N.W. Counties	1 5½	1 1¼
B_2	Frome	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham	S. Counties	1 3½	11¾
A_2	Gloucester	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport	S. Counties	1 4	1 0
A_3	Grantham	Mid. Counties	1 4	1 0
A_1	Gravesend	S. Counties	1 5	1 0¾
A	Greenock	Scotland	*1 5½	1 1¼
A	Grimsby	Yorkshire	1 5½	1 1¼
B_1	Guildford	S. Counties	1 3	11½
A	HALIFAX	Yorkshire	1 5½	1 1¼
A	Hanley	Mid. Counties	1 5½	1 1¼
A	Harrogate	Yorkshire	1 5½	1 1¼
A	Hartlepools	N.E. Coast	1 5½	1 1¼
B	Harwich	E. Counties	1 3½	11¾
B_2	Hastings	S. Counties	1 2½	11
A_2	Hatfield	S. Counties	1 4	1 0
B	Hereford	S.W. Counties	1 3½	11¾
A_3	Hertford	E. Counties	1 4	1 0
A	Heysham	N.W. Counties	1 5½	1 1¼
A	Howden	N.E. Coast	1 5½	1 1¼
A	Huddersfield	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY	Yorkshire	1 5½	1 1¼
A	Immingham	Mid. Counties	1 5½	1 1¼
A_3	Ipswich	E. Counties	1 4	1 0
B_3	Isle of Wight	S. Counties	1 2	10½
A	JARROW	N.E. Coast	5½	1 1¼
A	KEIGHLEY	Yorkshire	1 5½	1 1¼
B	Kendal	N.W. Counties	1 3½	11¾
B	Keswick	N.W. Counties	1 3½	11¾
A_2	Kettering	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn	E. Counties	1 2½	11
A	LANCASTER	N.W. Counties	1 5½	1 1¼
A_1	Leamington	Mid. Counties	1 5	1 0¾
A	Leeds	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield	Mid. Counties	1 4½	1 0½
A	Lincoln	Mid. Counties	1 5½	1 1¼
	Liverpool	N.W. Counties	*1 7	1 2¼
A_2	Llandudno	N.W. Counties	1 4½	1 0½
A	Llanelly	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone	S. Counties	1 3½	11¾
A_3	Malvern	Mid. Counties	1 4	1 0
A	Manchester	N.W. Counties	1 5½	1 1¼
A	Mansfield	Mid. Counties	1 5½	1 1¼
B_1	Margate	S. Counties	1 3	11½
A_3	Matlock	Mid. Counties	1 4	1 0
A_1	Merthyr	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich	N.W. Counties	1 4½	1 0½
B_2	Minehead	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe	N.W. Counties	5½	1 1¼
A_2	NANTWICH	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson	N.W. Counties	1 5½	1 1¼
A	Newcastle	N.E. Coast	1 5½	1 1¼
A	Newport	S. Wales & M.	1 5½	1 1¼
A	Normanton	Yorkshire	1 5½	1 1¼
A_1	Northampton	Mid. Counties	1 5	1 0¾
A	North Staffs.	Mid. Counties	1 5½	1 1¼
A	North Shields	N.E. Coast	1 5½	1 1¼
A_2	Norwich	E. Counties	1 4½	1 0½
A	Nottingham	Mid. Counties	1 5½	1 1¼
A	Nuneaton	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM	Mid. Counties	1 4	1 0
A	Oldham	N.W. Counties	1 5½	1 1¼
A_3	Oswestry	N.W. Counties	1 4	1 0
A_2	Oxford	S. Counties	1 4½	1 0½
A	PAISLEY	Scotland	*1 5½	1 1¼
B_3	Pembroke	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth	S.W. Counties	*1 5½	1 1¼
A	Pontefract	Yorkshire	1 5½	1 1¼
A_1	Pontypridd	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth	S. Counties	1 4	1 0
A	Preston	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING	S. Counties	1 4½	1 0½
B	Reigate	S. Counties	1 3½	11¾
A_3	Retford	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale	N.W. Counties	1 5½	1 1¼
B	Rochester	S. Counties	1 3½	11¾
A_1	Ruabon	N.W. Counties	1 5	1 0¾
A	Rugby	Mid. Counties	1 5½	1 1¼
A_3	Rugeley	Mid. Counties	1 4	1 0
A	Runcorn	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS	E. Counties	1 4½	1 0½
A	St. Helens	N.W. Counties	1 5½	1 1¼
B_3	Salisbury	S.W. Counties	1 2	10½
A_1	Scarborough	Yorkshire	1 5	1 0¾
A	Scunthorpe	Mid. Counties	1 5½	1 1¼
A	Sheffield	Yorkshire	1 5½	1 1¼
A	Shipley	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury	Mid. Counties	1 4½	1 0½
A_2	Skipton	Yorkshire	1 4½	1 0½
A_3	Slough	S. Counties	1 4	1 0
A_2	Solihull	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport	N.W. Counties	1 5½	1 1¼
A	S. Shields	N.E. Coast	1 5½	1 1¼
A_2	Stafford	Mid. Counties	1 4½	1 0½
A	Stockport	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud	S.W. Counties	1 3½	11¾
A	Sunderland	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea	S. Wales & M.	1 5½	1 1¼
A_3	Swindon	S.W. Counties	1 4	1 0
A_1	TAMWORTH	N.W. Counties	1 5	1 0¾
B	Taunton	S.W. Counties	1 3½	11¾
A	Teesside Dist.	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden	Yorkshire	1 5½	1 1¼
A_1	Torquay	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall	Mid. Counties	1 5½	1 1¼
A	Warrington	N.W. Counties	1 5½	1 1¼
A_1	Warwick	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby	Yorkshire	1 4½	1 0½
A	Widnes	N.W. Counties	1 5½	1 1¼
A	Wigan	N.W. Counties	1 5½	1 1¼
B_1	Winchester	S. Counties	1 3	11½
A_3	Windsor	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester	Mid. Counties	1 4½	1 0½
A	Worksop	Yorkshire	1 4	1 0
A_1	Wrexham	N.W. Counties	1 5	1 0¾
A_3	Wycombe	S. Counties	1 4	1 0
B_1	YARMOUTH	E. Counties	1 3	11½
B_1	Yeovil	S.W. Counties	1 3	11½
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		7	6
Building Sand	,,		7	9
Washed Sand	,,		8	9
2" Broken Brick	,,		8	3
¾" ,, ,,	,,		11	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	8	8	0
Luton Facings	,,	8	0	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	24	10	0
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

			s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	6
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	6
,, drawn pipes	,,		17	6
,, soil pipe	,,	1	0	6
,, scrap	,,		15	0
Solder, plumbers'	lb.			10
,, fine do.	,,		1	0
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
,, ,, 26 oz. ,, ,, ,,	,,					3¾
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		2	9
„ to reduce levels n/e 5' 0" deep and cart away		Y.C.		8	6
„ to form basement n/e 5' 0" deep and cart away		„		9	0
„ „ 10' 0" deep and cart away		„		9	6
„ „ 15' 0" deep and cart away		„		10	0
If in stiff clay	add	„		2	6
If in underpinning	„	„		4	0
Digging, return, fill and ram	„	„		4	0
Planking and strutting to sides of excavation		F.S.		1	0
„ „ to pier holes		„			5
„ „ to trenches		„			5
„ „ extra, only if left in		„			3
Hardcore, filled in and rammed		Y.C.		10	0
Portland cement concrete in foundations (6-1)		„	1	6	0
„ „ „ (4-2-1)		„	1	12	6
„ „ „ underpinning		„	1	16	0
Finishing surface of concrete, spade face		Y.S.			7

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions		3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	28	10	0
„ „ in cement	„	29	15	0
„ Stocks in cement	„	35	15	0
„ Blues in cement	„	52	0	0
Extra only for circular on plan	„	2	0	0
„ backing to masonry	„	1	10	0
„ raising on old walls	„	2	0	0
„ underpinning	„	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	„			5½
„ „ „ red brick facings and pointing	„			11
„ „ „ blue brick facings and pointing	„		1	4
„ „ „ glazed brick facings and pointing	„		3	6
Tuck pointing	„			7
Weather pointing in cement	„			3½
Slate dampcourse	„			10
Vertical dampcourse	„		1	1

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	„		13	6
Artificial stone and do.	„		13	0
York stone templates, fixed complete	„		10	6
„ thresholds	„		13	6
„ sills	„	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	„		4	6
„ „ roofs	„		6	6
„ „ trusses	„		7	6
„ „ partitions	„		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" „ „ „ „	„	1	17	6
1¼" „ „ „ „	„	2	3	0
¾" × 2" fir battening for Countess slating	„		9	6
Do. for 4" gauge tiling	„		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
„ „ „ 2 „	„		2	9
„ „ „ 3 „	„		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1¼" „ „ „ „ „	„		1	6
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	„	2	12	6
1½" do.	„	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.	„		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" „ „	„	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	3	9
2" „ „ „	„	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" „ „ „	„	2	8
1½" „ but moulded both sides	„	2	4
2" „ „	„	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" „ „	„	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	2	6
1½" deal moulded wall strings	„	2	1
1½" „ outer strings	„	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" „ „	„	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	„	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	„		19	6
Do. stanchions with riveted caps and bases and do.	„		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	15	0
Do. in flashings	„	1	17	6
Do. in covering to turrets, etc.	„	2	4	6
Do. in soakers	„	1	10	6
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 0	1 2	1 5	2 1	3 0	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 3
Do. to stop ends	„	6½	8	9	11	1 3	—
Boiler screws and unions	„	3 3	3 9	5 0	8 0	—	—
Lead traps	„	—	—	—	6 3	8 9	—
Screw down bib valves	„	6 9	9 6	11 0	—	—	—
Do. stop cocks	„	9 0	11 0	14 6	20 6	47 0	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	„		3	6
Lathing with sawn laths to ceilings	„		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		1	9
Do. vertical	„		2	3
Rough render on walls	„		1	4
Render, float and set in lime and hair	„		2	0
Render and set in Sirapite	„		2	2
Render, backing in cement and sand, and set in Keene's cement	„		3	1
Extra, only if on lathing	„			4
Keene's cement, angle and arris	F.R.			6
Arris	„			2
Rounded angle, small	„			3
Plain cornices in plaster, including dubbing out, per 1" girth	„			1½
1" granolithic pavings	Y.S.		3	6
1½" „	„		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	„		17	6
9" × 3" „ „ „ „	„	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

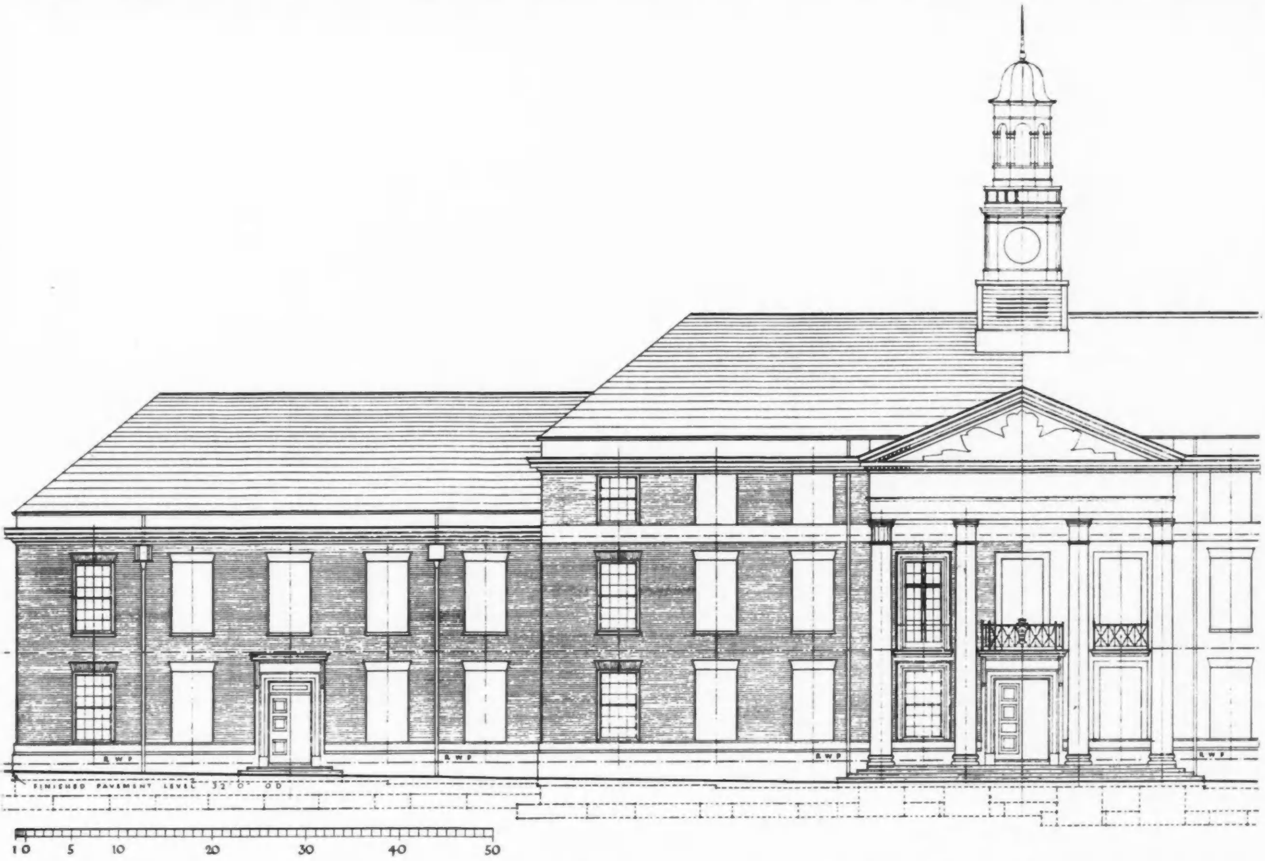
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	„	2	9

Supplement to THE ARCHITECTS' JOURNAL for May 24, 1933

WORTHING TOWN HALL

ELEVATION AND PLANS: : BY C. COWLES-VOYSEY



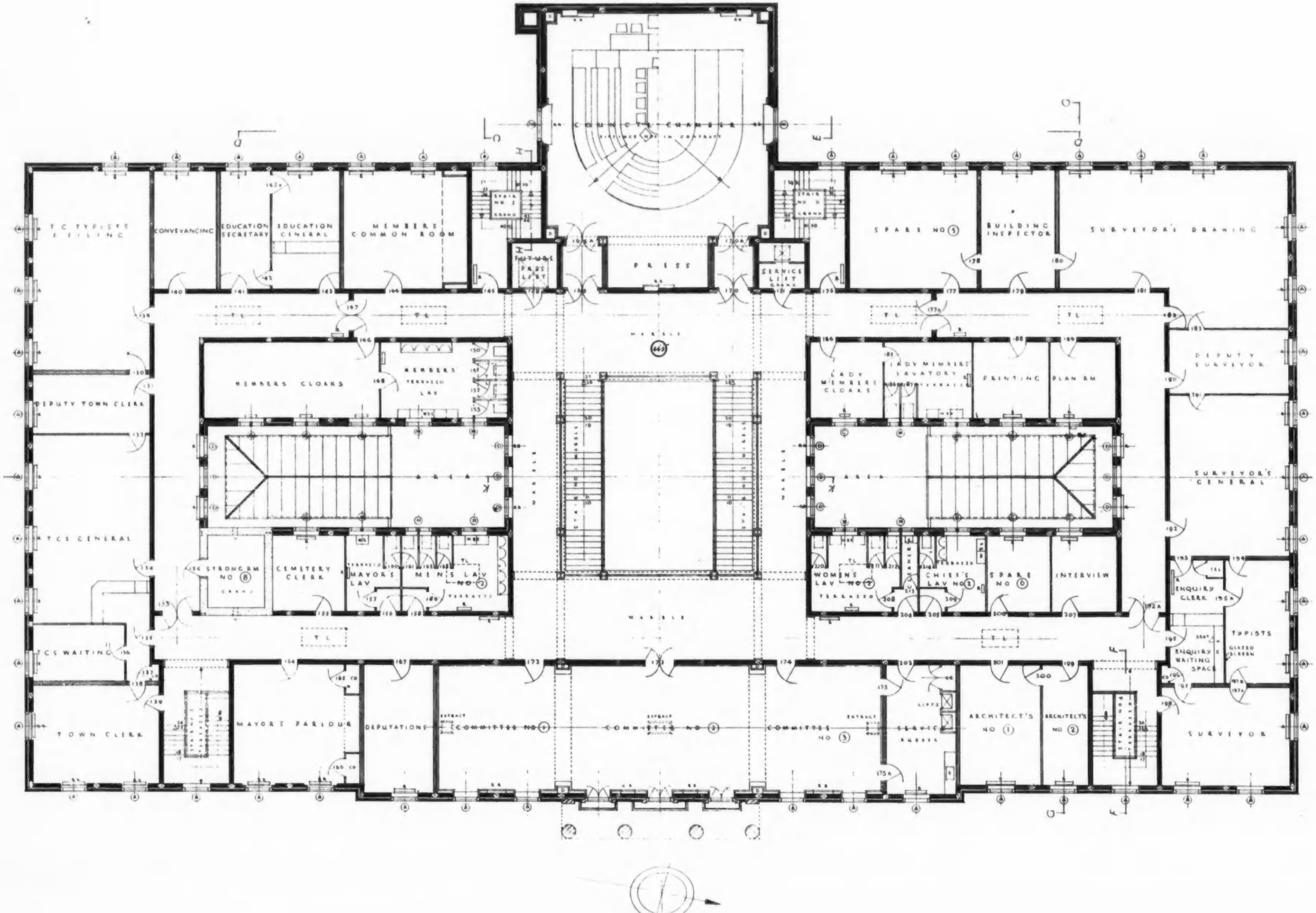
PART OF THE MAIN EAST ELEVATION: THE WHOLE IS SYMMETRICAL

THE form of the Town Hall building, of which plans are reproduced overleaf and photographs and some detail drawings elsewhere in this issue, is a simple rectangle with two light wells in the centre. On the first floor there are the Council Chamber, committee rooms and member's room and also the offices of the Town Clerk, Borough Engineer and Surveyor. The ground floor is occupied by the accountant's department, rates and revenue office, medical officer of health's department and the Police and County Court, with the necessary subsidiary rooms. There is a second floor over the centre portion of the building containing kitchens, caretaker's quarters and the public gallery of the Council Chamber.

The construction throughout is of a fire-resisting nature with the exception of the roof. The walls are of brickwork combined with steel framework and the floors are of reinforced concrete.

The site is bounded by Chapel Road (main front) and Stoke Abbot Road. Space has been left at the back of the present building for an assembly hall, accommodating 1,000 people, to be built at a later date if required. This latter would have a public approach from Stoke Abbot Road, and a ceremonial approach from the main entrance. The estimated cost of the building now completed, including furnishing, is £120,000; and of the assembly hall annexe, £42,000.

Supplement to THE ARCHITECTS' JOURNAL for May 24, 1933


COUNCIL CHAMBER
PRESS
FUTURE PASS LIFT
SERVICE LIFT
STAIR No 1
STAIR No 3
T.C. TYPISTS FILING
CONVEYANCING
EDUCATION SECRETARY
EDUCATION GENERAL
MEMBERS COMMON ROOM
SPARE NO 5
BUILDING INSPECTOR
SURVEYOR'S DRAWING
DEPUTY SURVEYOR
SURVEYOR'S GENERAL
DEPUTY TOWN CLERK
T.C.S GENERAL
T.C.S WAITING
TOWN CLERK
MEMBERS CLOAKS
MEMBERS TERRAZZO LAV
STRONG RM NO 8
CEMETERY CLERK
MAYOR'S LAV
MEN'S LAV NO 2
LADY MEMBERS CLOAKS
LADY MEMBERS LAVATORY
PRINTING
PLAN RM
WOMEN'S LAV NO 4
CHIEF'S LAV NO 3
SPARE NO 6
INTERVIEW
ENQUIRY CLERK 195A
TYPISTS
ENQUIRY & WAITING SPACE
MARBLE
AREA
TL
MAYOR'S PARLOUR
DEPUTATIONS
COMMITTEE NO 4
COMMITTEE NO 3
COMMITTEE NO 5
SERVICE
ARCHITECT'S NO 1
ARCHITECT'S NO 2
SURVEYOR
D
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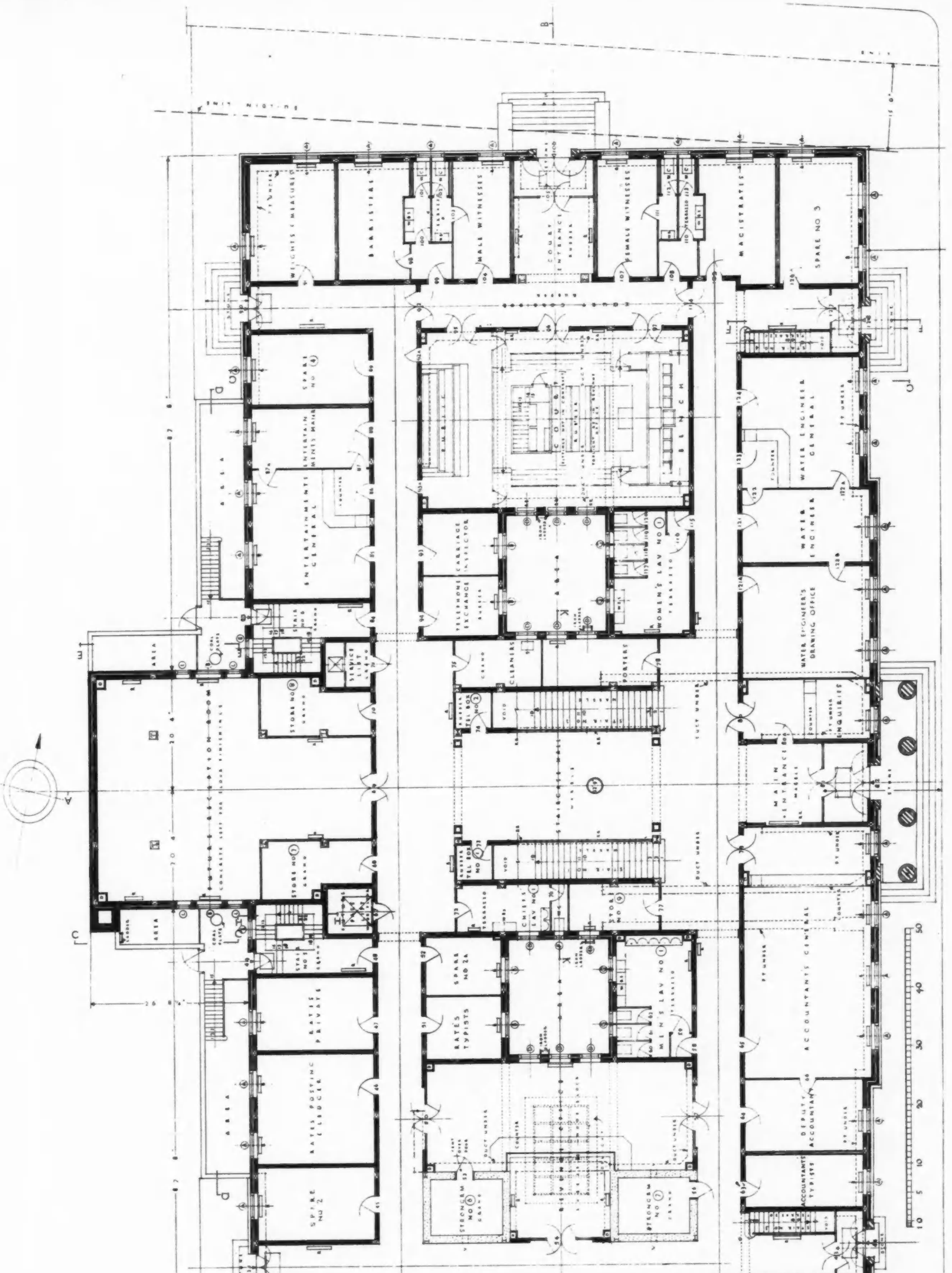

WEIGHTS & MEASURES
BARRISTERS
MALE WITNESSES
COURT ENTRANCE
FEMALE WITNESSES
MAGISTRATE
SPARE No 3
SPARE No 4
ENTERTAINMENTS
ENTERTAINMENTS GENERAL
COURT
BENCH
CARRIAGE INSPECTOR
TELEPHONE EXCHANGE
AREA
K
WOMEN'S LAV No 1
WATER ENGINEER GENERAL
WATER ENGINEER
WATER ENGINEER'S DRAWING OFFICE
ENQUIRIES
MAIN ENTRANCE
CLEANERS
PORTERS
STORE No 8
STORE No 7
FUTURE RECEPTION ROOM
STAIRCASE
STAIRS No 2
STAIRS No 1
COAL
SPARE No 2A
RATES TYPISTS
CHIEFS LAV
MEN'S LAV No 1
ACCOUNTANTS GENERAL
DEPUTY ACCOUNTANT
ACCOUNTANTS TYPISTS
STRONGROOM No 6
STRONGROOM No 7
RATES PRIVATE
RATES POSTING CLERKS
SPARE No 2
MEDICAL OFFICER
M.O.'S WAITING
M.O.'S GENERAL
SANITARY INSPECTOR
SPARE No 1
AUDITOR
ACCOUNTANT
87' 6"
26' 8"
20' 4"
A
B
C
D
E
10 5 0 10 20 30 40 50

No OF RISERS	HEIGHT FROM FLOOR TO FLOOR.																								No OF RISERS
	14'0"	14'1"	14'2"	14'3"	14'4"	14'5"	14'6"	14'7"	14'8"	14'9"	14'10"	14'11"	15'0"	15'1"	15'2"	15'3"	15'4"	15'5"	15'6"	15'7"	15'8"	15'9"	15'10"	15'11"	
19.	8 16/19	8 17/19	8 18/19	9.																					19
20	8 2/5	8 9/20	8 1/2	8 11/20	8 3/5	8 13/20	8 7/10	8 3/4	8 4/5	8 17/20	8 9/10	8 19/20	9												20
21	8.	8 1/21	8 2/21	8 1/7	8 4/21	8 5/21	8 2/7	8 1/3	8 8/21	8 3/7	8 10/21	8 11/21	8 4/7	8 13/21	8 2/3	8 5/7	8 16/21	8 17/21	8 6/7	8 19/21	8 20/21	9.			21
22	7 7/11	7 15/22	7 8/11	7 17/22	7 9/11	7 19/22	7 10/11	7 21/22	8	8 1/22	8 1/11	8 3/22	8 2/11	8 5/22	8 3/11	8 7/22	8 4/11	8 9/22	8 5/11	8 1/2	8 6/11	8 13/22	8 7/11	8 15/22	22
23	7 7/23	7 8/23	7 9/23	7 10/23	7 11/23	7 12/23	7 13/23	7 14/23	7 15/23	7 16/23	7 17/23	7 18/23	7 19/23	7 20/23	7 21/23	7 22/23	8	8 1/23	8 2/23	8 3/23	8 4/23	8 5/23	8 6/23	8 7/23	23
24	7	7 1/24	7 1/12	7 1/8	7 1/6	7 5/24	7 1/4	7 7/24	7 1/3	7 3/8	7 5/12	7 11/24	7 1/2	7 13/24	7 7/12	7 5/8	7 2/3	7 17/24	7 3/4	7 19/24	7 5/6	7 7/8	7 11/12	7 23/24	24
25	6 18/25	6 19/25	6 4/5	6 21/25	6 22/25	6 23/25	6 24/25	7	7 1/25	7 2/25	7 3/25	7 4/25	7 1/5	7 6/25	7 7/25	7 8/25	7 9/25	7 2/5	7 11/25	7 12/25	7 13/25	7 14/25	7 3/5	7 16/25	25
26	6 6/13	6 1/2	6 7/13	6 15/26	6 8/13	6 17/26	6 9/13	6 19/26	6 10/13	6 21/26	6 11/13	6 23/26	6 12/13	6 25/26	7	7 1/26	7 1/13	7 3/26	7 2/13	7 5/26	7 3/13	7 7/26	7 4/13	7 9/26	26
27	6 6/27	6 7/27	6 8/27	6 1/3	6 10/27	6 11/27	6 4/9	6 13/27	6 14/27	6 5/9	6 16/27	6 17/27	6 2/3	6 19/27	6 20/27	6 7/9	6 22/27	6 23/27	6 8/9	6 25/27	6 26/27	7	7 1/27	7 2/27	27
28	6	6 1/28	6 1/14	6 3/28	6 1/7	6 5/28	6 3/14	6 1/4	6 2/7	6 9/28	6 5/14	6 11/28	6 3/7	6 13/28	6 1/2	6 15/28	6 4/7	6 17/28	6 9/14	6 19/28	6 5/7	6 3/4	6 11/14	6 23/28	28
29	5 23/29	5 24/29	5 25/29	5 26/29	5 27/29	5 28/29	6	6 1/29	6 2/29	6 3/29	6 4/29	6 5/29	6 6/29	6 7/29	6 8/29	6 9/29	6 10/29	6 11/29	6 12/29	6 13/29	6 14/29	6 15/29	6 16/29	6 17/29	29
30	5 3/5	5 19/30	5 2/3	5 7/10	5 11/15	5 23/30	5 4/5	5 5/6	5 13/15	5 9/10	5 14/15	5 29/30	6	6 1/30	6 1/15	6 1/10	6 2/15	6 1/6	6 1/5	6 7/30	6 4/15	6 3/10	6 1/3	6 11/30	30
31	5 13/31	5 14/31	5 15/31	5 16/31	5 17/31	5 18/31	5 19/31	5 20/31	5 21/31	5 22/31	5 23/31	5 24/31	5 25/31	5 26/31	5 27/31	5 28/31	5 29/31	5 30/31	6	6 1/31	6 2/31	6 3/31	6 4/31	6 5/31.	31
32	5 1/4	5 9/32	5 5/16	5 11/32	5 3/8	5 13/32	5 7/16	5 15/32	5 1/2	5 17/32	5 9/16	5 19/32	5 5/8	5 21/32	5 11/16	5 23/32	5 3/4	5 25/32	5 13/16	5 27/32	5 7/8	5 29/32	5 15/16	5 31/32	32
33	5 1/11	5 4/33	5 5/33	5 2/11	5 7/33	5 8/33	5 3/11	5 10/33	5 1/3	5 4/11	5 13/33	5 14/33	5 5/11	5 16/33	5 17/33	5 6/11	5 19/33	5 20/33	5 7/11	5 2/3	5 23/33	5 8/11	5 25/33	5 26/33	33
34			5.	5 1/34	5 1/17	5 3/34	5 2/17	5 5/34	5 3/17	5 7/34	5 4/17	5 9/34	5 5/17	5 11/34	5 6/17	5 13/34	5 7/17	5 15/34	5 8/17	5 1/2	5 9/17	5 19/34	5 10/17	5 21/34	34
35								5	5 1/35	5 2/35	5 3/35	5 4/35	5 1/7	5 6/35	5 1/5	5 8/35	5 9/35	5 2/7	5 11/35	5 12/35	5 13/35	5 2/5	5 3/7	5 16/35	35
36													5	5 1/36	5 1/18	5 1/12	5 1/9	5 5/36	5 1/6	5 7/36	5 2/9	5 1/4	5 5/18	5 11/36	36
37				heights of risers in inches.														5	5 1/37	5 2/37	5 3/37	5 4/37	5 5/37	5 6/37	37
38																							5	5 1/38	38

	16'0"	16'1"	16'2"	16'3"	16'4"	16'5"	16'6"	16'7"	16'8"	16'9"	16'10"	16'11"	17'0"	17'1"	17'2"	17'3"	17'4"	17'5"	17'6"	17'7"	17'8"	17'9"	17'10"	17'11"	
22	8 8/11	8 17/22	8 9/11	8 19/22	8 10/11	8 21/22	9																		22
23	8 8/23	8 9/23	8 10/23	8 11/23	8 12/23	8 13/23	8 14/23	8 15/23	8 16/23	8 17/23	8 18/23	8 19/23	8 20/23	8 21/23	8 22/23	9									23
24	8	8 1/24	8 1/12	8 1/8	8 1/6	8 5/24	8 1/4	8 7/24	8 1/3	8 3/8	8 5/12	8 11/24	8 1/2	8 13/24	8 7/12	8 5/8	8 2/3	8 17/24	8 3/4	8 19/24	8 5/6	8 7/8	8 11/12	8 23/24	24
25	7 17/25	7 18/25	7 19/25	7 4/5	7 21/25	7 22/25	7 23/25	7 24/25	8	8 1/25	8 2/25	8 3/25	8 4/25	8 1/5	8 6/25	8 7/25	8 8/25	8 9/25	8 2/5	8 11/25	8 12/25	8 13/25	8 14/25	8 3/5	25
26	7 5/13	7 11/26	7 6/13	7 1/2	7 7/13	7 15/26	7 8/13	7 17/26	7 9/13	7 19/26	7 10/13	7 21/26	7 11/13	7 23/26	7 12/13	7 25/26	8.	8 1/26	8 1/13	8 3/26	8 2/13	8 5/26	8 3/13	8 7/26	26
27	7 1/9	7 4/27	7 5/27	7 2/9	7 7/27	7 8/27	7 1/3	7 10/27	7 11/27	7 4/9	7 13/27	7 14/27	7 5/9	7 16/27	7 17/27	7 2/3	7 19/27	7 20/27	7 7/9	7 22/27	7 23/27	7 8/9	7 25/27	7 26/27	27
28	6 6/7	6 25/28	6 13/14	6 27/28	7	7 1/28	7 1/14	7 3/28	7 1/7	7 5/28	7 3/14	7 1/4	7 2/7	7 9/28	7 5/14	7 11/28	7 3/7	7 13/28	7 1/2	7 15/28	7 4/7	7 17/28	7 9/14	7 19/28	28
29	6 18/29	6 19/29	6 20/29	6 21/29	6 22/29	6 23/29	6 24/29	6 25/29	6 26/29	6 27/29	6 28/29	7	7 1/29	7 2/29	7 3/29	7 4/29	7 5/29	7 6/29	7 7/29	7 8/29	7 9/29	7 10/29	7 11/29	7 12/29	29
30	6 2/5	6 13/30	6 7/15	6 1/2	6 8/15	6 17/30	6 3/5	6 19/30	6 2/3	6 7/10	6 11/15	6 23/30	6 4/5	6 5/6	6 13/15	6 9/10	6 14/15	6 29/30	7	7 1/30	7 1/15	7 1/10	7 2/15	7 1/6.	30
31	6 6/31	6 7/31	6 8/31	6 9/31	6 10/31	6 11/31	6 12/31	6 13/31	6 14/31	6 15/31	6 16/31	6 17/31	6 18/31	6 19/31	6 20/31	6 21/31	6 22/31	6 23/31	6 24/31	6 25/31	6 26/31	6 27/31	6 28/31	6 29/31	31
32	6.	6 1/32	6 1/16	6 3/32	6 1/8	6 5/32	6 3/16	6 7/32	6 1/4	6 9/32	6 5/16	6 11/32	6 3/8	6 13/32	6 7/16	6 15/32	6 1/2	6 17/32	6 9/16	6 19/32	6 5/8	6 21/32	6 11/16	6 23/32	32
33	5 9/11	5 28/33	5 29/33	5 10/11	5 31/33	5 32/33	6.	6 1/33	6 2/33	6 1/11	6 4/33	6 5/33	6 2/11	6 7/33	6 8/33	6 3/11	6 10/33	6 1/3	6 4/11	6 13/33	6 14/33	6 5/11	6 16/33	6 17/33	33
34	5 11/17	5 23/34	5 12/17	5 25/34	5 13/17	5 27/34	5 14/17	5 29/34	5 15/17	5 31/34	5 16/17	5 33/34	6	6 1/34	6 1/17	6 3/34	6 2/17	6 5/34	6 3/17	6 7/34	6 4/17	6 9/34	6 5/17	6 11/34	34
35	5 17/35	5 18/35	5 19/35	5 4/7	5 3/5	5 22/35	5 23/35	5 24/35	5 5/7	5 26/35	5 27/35	5 4/5	5 29/35	5 6/7	5 31/35	5 32/35	5 33/35	5 34/35	6	6 1/35	6 2/35	6 3/35	6 4/35	6 1/7.	35
36	5 1/3	5 13/36	5 7/18	5 5/12	5 4/9	5 17/36	5 1/2	5 19/36	5 5/9	5 7/12	5 11/18	5 23/36	5 2/3	5 25/36	5 13/18	5 3/4	5 7/9	5 29/36	5 5/6	5 31/36	5 8/9	5 33/36	5 17/18	5 35/36	36
37	5 7/37	5 8/37	5 9/37	5 10/37	5 11/37	5 12/37	5 13/37	5 14/37	5 15/37	5 16/37	5 17/37	5 18/37	5 19/37	5 20/37	5 21/37	5 22/37	5 23/37	5 24/37	5 25/37	5 26/37	5 27/37	5 28/37	5 29/37	5 30/37	37
38	5 1/19	5 3/38	5 2/19	5 5/38	5 3/19	5 7/38	5 4/19	5 9/38	5 5/19	5 11/38	5 6/19	5 13/38	5 7/19	5 15/38	5 8/19	5 17/38	5 9/19	5 1/2	5 10/19	5 21/38	5 11/19	5 23/38	5 12/19	5 25/38	38
39				5	5 1/39	5 2/39	5 1/13	5 4/39	5 5/39	5 2/13	5 7/39	5 8/39	5 3/13	5 10/39	5 11/39	5 4/13	5 1/3	5 14/39	5 5/13	5 16/39	5 17/39	5 6/13	5 19/39	5 20/39	39
40									5	5 1/40	5 1/20	5 3/40	5 1/10	5 1/8	5 3/20	5 7/40	5 1/5	5 9/40	5 1/4	5 11/40	5 3/10	5 13/40	5 7/20	5 3/8	40
41				heights of risers in inches										5	5 1/41	5 2/41	5 3/41	5 4/41	5 5/41	5 6/41	5 7/41	5 8/41	5 9/41	5 10/41	41
42																			5	5 1/42	5 1/21	5 1/14	5 2/21	5 5/42	42
43																								5	43

TABLE OF LENGTHS OF STAIR FLIGHTS.

No OF RISERS	No OF TREADS.	GOING IN INCHES PER STEP.														
2	1	7"	7½"	8"	8½"	9"	9½"	10"	10½"	11"	11½"	12"	12½"	13"	14"	15"
3	2	1'2"	1'3"	1'4"	1'5"	1'6"	1'7"	1'8"	1'9"	1'10"	1'11"	2'0"	2'1"	2'2"	2'4"	2'6"
4	3	1'9"	1'10½"	2'0"	2'1½"	2'3"	2'4½"	2'6"	2'7½"	2'9"	2'10½"	3'0"	3'1½"	3'3"	3'6"	3'9"
5	4	2'4"	2'6"	2'8"	2'10"	3'0"	3'2"	3'4"	3'6"	3'8"	3'10"	4'0"	4'2"	4'4"	4'8"	5'0"
6	5	2'11"	3'1½"	3'4"	3'6½"	3'9"	3'11½"	4'2"	4'4½"	4'7"	4'9½"	5'0"	5'2½"	5'5"	5'10"	6'3"
7	6	3'6"	3'9"	4'0"	4'3"	4'6"	4'9"	5'0"	5'3"	5'6"	5'9"	6'0"	6'3"	6'6"	7'0"	7'6"
8	7	4'1"	4'4½"	4'8"	4'11½"	5'3"	5'6½"	5'10"	6'1½"	6'5"	6'8½"	7'0"	7'3½"	7'7"	8'2"	8'9"
9	8	4'8"	5'0"	5'4"	5'8"	6'0"	6'4"	6'8"	7'0"	7'4"	7'8"	8'0"	8'4"	8'8"	9'4"	10'0"
10	9	5'3"	5'7½"	6'0"	6'4½"	6'9"	7'1½"	7'6"	7'10½"	8'3"	8'7½"	9'0"	9'4½"	9'9"	10'6"	11'3"
11	10	5'10"	6'3"	6'8"	7'1"	7'6"	7'11"	8'4"	8'9"	9'2"	9'7"	10'0"	10'5"	10'10"	11'8"	12'6"
12	11	6'5"	6'10½"	7'4"	7'9½"	8'3"	8'8½"	9'2"	9'7½"	10'1"	10'6½"	11'0"	11'5½"	11'11"	12'10"	13'9"
13	12	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	10'6"	11'0"	11'6"	12'0"	12'6"	13'0"	14'0"	15'0"
14	13	7'7"	8'1½"	8'8"	9'2½"	9'9"	10'3½"	10'10"	11'4½"	11'11"	12'5½"	13'0"	13'6½"	14'1"	15'2"	16'3"
15	14	8'2"	8'9"	9'4"	9'11"	10'6"	11'1"	11'8"	12'3"	12'10"	13'5"	14'0"	14'7"	15'2"	16'4"	17'6"
16	15	8'9"	9'4½"	10'0"	10'7½"	11'3"	11'10½"	12'6"	13'1½"	13'9"	14'4½"	15'0"	15'7½"	16'3"	17'6"	18'9"

INFORMATION SHEET: TABLE OF LENGTHS OF STAIR FLIGHTS & TABLE OF RISERS FOR STAIRS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.I.

INFORMATION SHEETS

• 19 •

STAIR RISERS AND FLIGHTS

•

THIS week's Sheet, the third of a series of nine dealing in detail with the layout and construction of staircases, continues the table given last week for floor-to-floor flights increasing by single inches up to 17 feet 11 inches.

From the complete table, the heights of individual risers in any desired number of steps necessary in the flight can be read off at a glance. The limiting heights of the risers themselves are 5 inches minimum and 9 inches maximum.

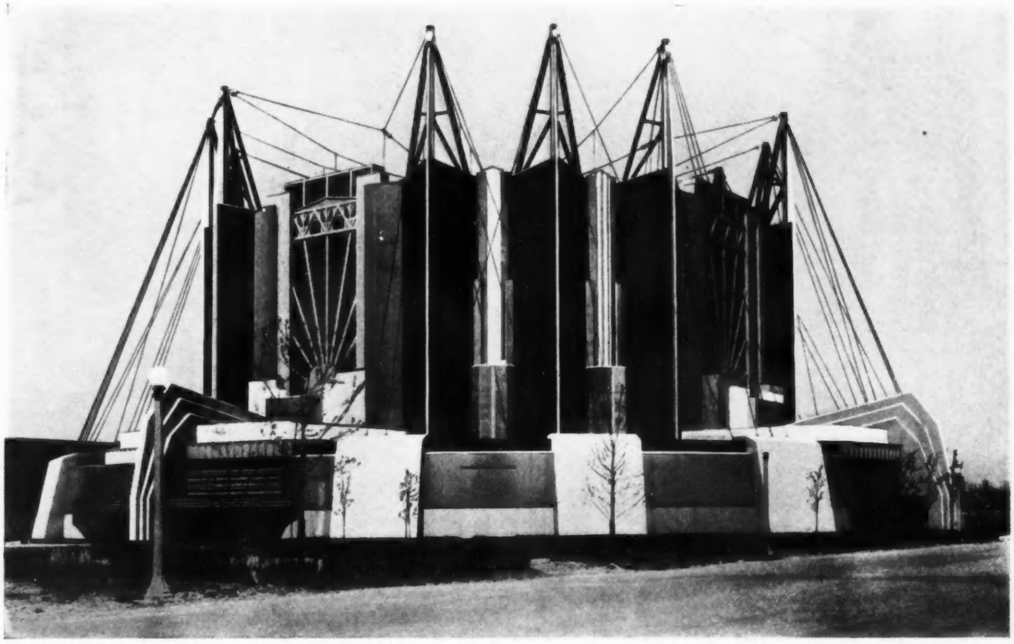
The lower table gives the going in inches per step by increments of half-an-inch.

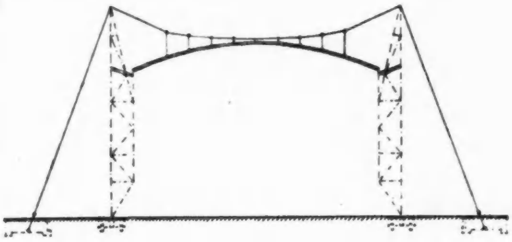
The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes
17. May 10—Stairway Diagrams.
18. May 17—Risers for Stairs.

AT THE CHICAGO WORLD FAIR

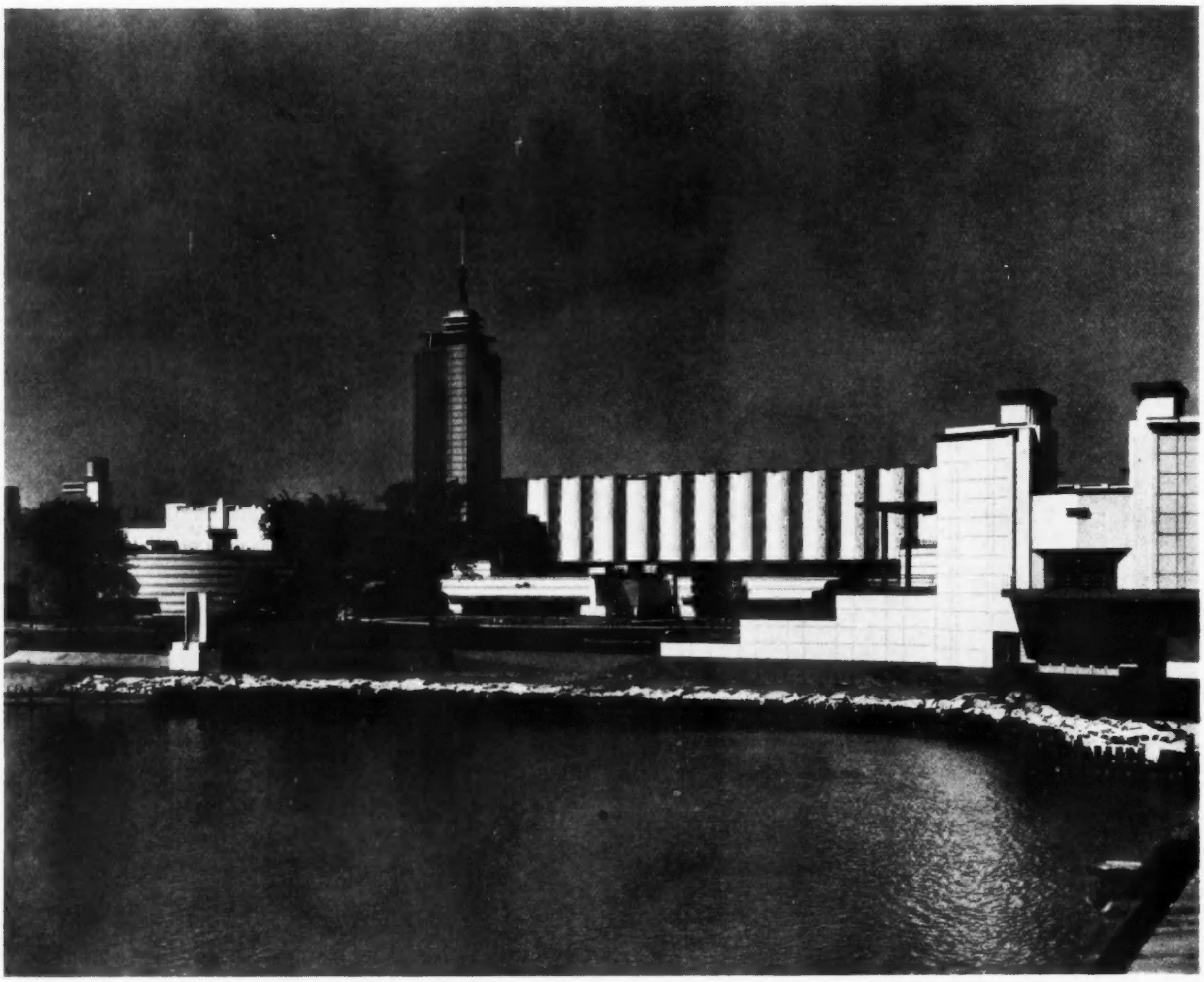
A DOME SUSPENDED FROM STEEL CABLES





THE vast size of this Travel and Transport building, designed by Bennet, Burnham and Holabird, may be gauged from the height of the surrounding wall in the foreground, which is over 23 ft. The dome is upwards of 200 ft. across and 125 ft. high, and the novel application to its design of the principle of the suspension bridge is in keeping with the object of the exhibition, which is to depict " a century of progress."

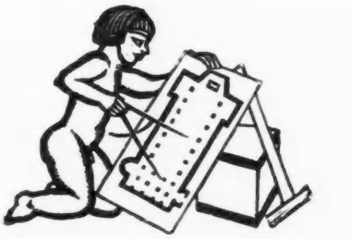
The roof, formed of I-section steel members and plates, is hung from twelve lattice stanchions, 150 ft. high, by 2-in. steel cables, anchored to the blocks of concrete, some 39 ft. by 20 ft. by 10 ft. of which several are visible. The interior thus presents a clear span devoid of arches, pillars, beams or any other supports. By means of expansion joints, sections of the roof are left free to slide one over another under the influences of changes of temperature, wind pressure and the load of rain or snow. The lateral movement, in a surface so large, may be a matter of feet.



THE HALL OF SCIENCE, CHICAGO

Designed by Paul Philippe Cret

On Saturday the Chicago World Fair was opened. It occupies a narrow site, nearly four miles long, from north to south, and over half a mile across, on the westerly shore of Lake Michigan. Near the centre of its length is an island enclosing a lagoon spanned by bridges. From one of these is taken the above view of the Hall of Science, a structure occupying a space of 700 ft. by 400 ft., and planned like a U, with the opening facing east; the court thus enclosed on three sides is capable of accommodating 80,000 persons. The tower is 176 ft. high, and is equipped with a carillon. The taller portions of the building are steel-framed, the lower, timber-framed. At night it has the appearance of a brilliantly illuminated metal and glass creation, rising from coloured terraces.



ADVISORY PANELS: SIR HILTON YOUNG'S GESTURE

FROM the moment when it was announced that the Government was prepared to concentrate upon slum clearance and let private enterprise look after small house building, it seemed to many people that State responsibility for the dwellings of the poorest classes of the community was being thrown aside at the first opportunity. The Act was called the "Anti-Housing Act." It seemed as though we had reverted to the bad old pre-war days which saw the jerry-builder at his highest activity, turning miles of pleasant fields into wildernesses of bricks and mortar.

We have yet to find it otherwise. Most certainly the Government has removed its control from small house building. It accepts the building societies as the chief financial agent, and anticipates, in the words of a recent circular on the question, that "with the present re-establishment of more normal conditions, economic forces, operating in a free field, will secure a large volume and variety of production at competitive rents, and that a great number and diversity of persons and organizations will play their part; private builders, housing companies, public utility societies, finance societies and private investors will, it is hoped, all take a share in the ownership of working-class houses."

That would read to us very like a free fight if it could be proved that there was enough in cheap houses for letting purposes to cause such a concentration of eager participants. We doubt it.

The same circular goes on to suggest that local authorities may ease up their regulations for road construction and generally modify their ideas about development, having regard to the nature of the gentlemen about to take over, there being after all a Town and Country Planning Act, regulations governing the size of houses, their density to the acre, and other matters.

Whether some of these regulations are not in conflict with the successful solution of the problem, the very difficult problem, of building very cheap houses *to let* at a profit, for persons who are quite used to making a profit, has yet to be made clear. All we see at this moment is the dwindling responsibility of local authorities, the express admonition to start private enterprise going before turning away to slum clearance, and "this great number and diversity of persons and organizations *playing their part*." It is not a pretty, nor yet a hopeful picture.

As though conscious of some hardly-to-be-defined failure in an otherwise irreproachable measure, this circular goes on to make suggestions of a very different nature. "It is important," it says, "that local authorities should endeavour to secure, so far as possible, that the houses to be provided are well laid out and of good design, and attention is called to the duty . . . to have regard to the beauty of the landscape or countryside and other amenities of the locality. Local authorities who do not themselves employ an architect should bear in mind that it is open to them to seek the advice of the advisory panels which have been set up by the Council for the Preservation of Rural England with the help of the Royal Institute of British Architects; and all local authorities are advised to draw the attention of builders and investors to the advantages to be derived from the employment of qualified architects to design the houses."

Now this is a pious admonition to be acted upon according to local circumstances and personal fancy. It follows a policy of peaceful persuasion, operating in a sphere which our current series of enquiries, under the title, *What is to be done about this?* prove to be bristling with difficulties and moved almost entirely by considerations of finance.*

Obviously the desire for beauty and amenity (a murrain upon that pale-faced word!) will not suffice to open up the field for architects, for we are discussing a type of house which we are far from certain can be made to show any profit at all. But if it can, it will more surely do so where large schemes are undertaken, under unified control, and employing terrace formations; and it is exactly in the handling of such units that architects alone can produce economies and find scope for fine design.

The more one looks into it, the better case there appears to be for a national organization on the lines suggested by Sir Raymond Unwin. Outside this is only the "great number and diversity of persons and organizations," playing their unspecified parts in a confusion easy to imagine; involving only too certain a waste of land, money and effort.

That appears to us to be the position created by Parliament, and to find some sense of order out of chaos, enough at least to provide a safeguard against the building of new slums under the wing of the Town and Country Planning Act, seems to be our mission to the lower-paid workers.

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* See article on *Building Society Finance*, page 729.

We think it doubtful that the Government can permanently avoid a responsibility for the housing of the lower classses, assumed with some show of feeling ; nor can we do less than seize with spirit the little opportunity offered us to enter the field of cheap housing TO LET.

R. Mervyn Noad, A.R.I.B.A., winner of the Prestwick competition. See pages 716-722.

NOTES & TOPICS

PURE TEXTURE

DURING the general strike, when traffic was scarce, London, most of us remember, looked *blanched.* That scarlet flow of buses through its streets was dried up, and we could appreciate the opulent variety of white and grey in the buildings.

*

London, dirt-streaked though it is, is essentially a white city ; but we do not discover it until the blinding colour of its traffic is withdrawn, or we look down from some high place and see its cool-coloured towers and spires.

*

" Colour in the West does not enter into life," wrote Lisle March Phillipps ; but since the war we have had a surfeit of colour in rooms, in textiles and furniture. I suspect it was partly a reaction from Government tones, khaki and the dispirited hue employed for official tape.

*

How enjoyably we can take a holiday from vivid colour, or even from innocuous pastel shades, is now being illustrated by a most ingenious exhibition arranged by Heal's in their Mansard Gallery.

Everything white, and just off white, that could be collected, in glass, pottery, fabrics and furniture, has been assembled as only Heal's can assemble an exhibition. Here and there some ebony bulk gives a tropic richness of shadow, while silver and the hard brilliance of chromium plate provide high lights.

*

This is a show to see, if only for the experience of seeing steel furniture enjoying its first phase of mellowness in design.

*

THE SHOP OF 1950

Shopping of the baser kind, which concerns itself not with things that delight the eye but which hearten the stomach and increase the housekeeping bills generally, is going to get special attention in July at the Advertising Exhibition at Olympia.

*

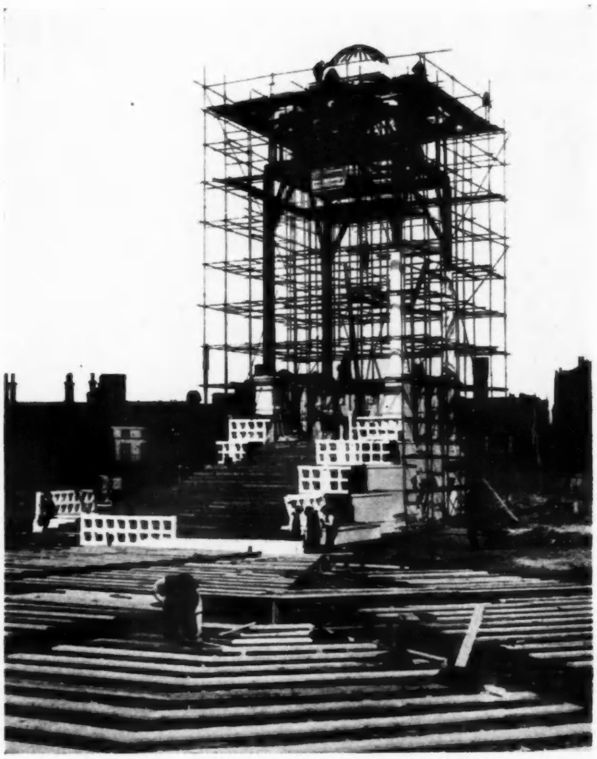
A shop of 1950 is being designed, based on the " help yourself" principle of the Cafeteria. As everything (or nearly everything) will be sold in packets seventeen years hence, this shop is to be a sort of speedway for quick shopping, and will be called a *Packeteria.*

*

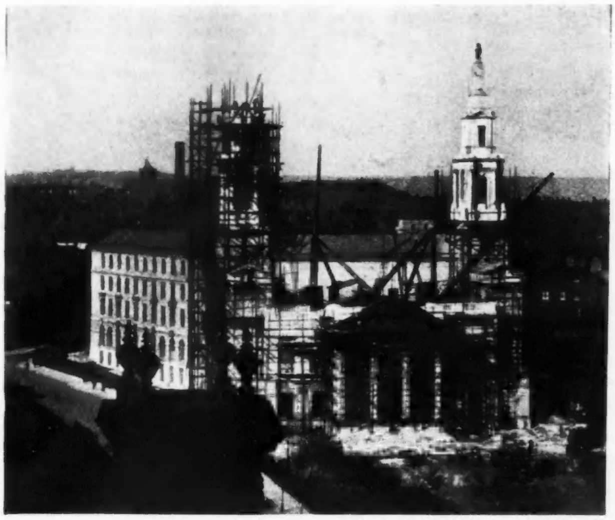
THE MONTH OF THE CENTURY

When future historians pick up their pens to write of the architectural events of the twentieth century, this month may well stand out in their chronicles. Why? Let me hasten to give only two grounds for the prognostication.

*



The temporary high altar of the new Roman Catholic Cathedral at Liverpool, the foundation stone of which is to be laid by Archbishop Downey, after being blessed by Cardinal Bourne, on Monday next. The stone-laying ceremony, including the Cardinal's address, is to be broadcast.



[Photo: "Yorkshire Evening News"

The new Civic Hall, Leeds, now nearing completion, from the design of E. Vincent Harris. It is to be opened by the King on August 23.

First: on Monday next, Archbishop Downey is to lay the foundation stone of the R.C. Cathedral at Liverpool, which, I believe, will be the second largest ecclesiastical building in the world. Sir Edwin Lutyens, with £3,000,000 at his command, has designed a building that will do much to maintain the standard of architecture of this century.

*

Then, on June 26, the King is to lay the foundation stone of what Lord MacMillan, at the Architecture Club Dinner last week, described as " a university of a new era."

*

Mr. Holden's design for the new headquarters of London University is one that has been acclaimed on all sides as an excellent piece of planning, and, as the King has likened it to a battleship, I am loyal in expressing the hope that it will sail proudly down the seas of time.

*

It was a happy idea of the Architecture Club to devote its 22nd Dinner to a discussion of this building, and those present were further indebted to the Club for prevailing upon the retiring Mr. Charles Holden to describe his masterpiece.

*

ST. JOHN'S CHURCH, WOLVERHAMPTON

Last week I made an oath to write about St. John's Church, Wolverhampton.

*

It is a superb church, standing on a superb site. You approach it up an eighteenth-century terrace which debouches into an eighteenth-century square. What would be the garden of the square is the graveyard, which is unique in that it is sunk each side of a raised triumphal way which leads from the terrace to the church, carrying on the street line of the terrace.

*

The church itself is 1758 and Gibbs-ish. Behind it is another square and yet another terrace. I don't think I'm exaggerating in saying that it is as good a piece of monumental planning as is to be found anywhere in England.

If you are in need of a fresh experience and haven't seen it, catch the next train to Wolverhampton. Incidentally, if any Wulfrunian has a drawing or a photograph which shows the layout, I should like the chance of publishing it in this column.

*

I need hardly add that the church is falling down. Yet it is far more beautiful than the dubious olde worlde St. Peter's which Wulfrunians are so proud of.

*

If Wulfrunians have any civic pride they will save St. John's and preserve it as the finest possession of their city.

*

YOUTH MUST BE SERVED

In order " to make room for young intelligence and ambitious youth " all officials who have passed the age limit in Czecho-Slovakia are to be retired. In other less fortunate countries " ambitious youth " has to make himself such a nuisance to everybody that someone takes notice at last. He is then ready to be an old man.

*

THE WICKED CITIES

It seems likely that Sodom and Gomorrah, the wicked cities of the plain, have been located at last. I hope so. We can register the fact, and get on with our own urban problems, which are only not interesting because the facts are too disturbing for nicely-balanced minds.

*

PITY THE POOR SEASIDE TOWN

Seaside towns are complaining of the difficulty of finding that little something other places have not got. They are all so apt to develop in two directions—there and back along the promenade.

*

What most of them lack, if the truth were known, is any decent character to call their own, and that is not a relic from the past or an accident of fortune. Pity the poor seaside town. ASTRAGAL

THE ARCHITECTS' DIARY

Thursday, June 1

ROYAL ACADEMY, Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

L.C.C. CENTRAL SCHOOL OF ART AND CRAFTS, Southampton Row, W.C.1. Annual Exhibition. Until Saturday, June 24. 10 a.m. to 8 p.m. (Saturdays: 10 a.m. to 12 noon.) 10 *a.m.*

INSTITUTION OF ELECTRICAL ENGINEERS. At Bath. Summer meeting. Until June 2.

INSTITUTION OF GAS ENGINEERS. At Liverpool. Annual General Meeting. Until June 2.

CONGRES INTERNATIONAUX D'ARCHITECTURE MODERNE. At Moscow. Until June 10. Subject " The Functional Town."

Friday, June 2

FRANCO-BRITISH UNION OF ARCHITECTS. At Caen, France. Thirteenth Annual Meeting. Until June 5.

Saturday, June 3

Sunrise 4.48 a.m. Sunset 9.9 p.m.

Tuesday, June 6

INTERNATIONAL CONGRESS OF BUILDING SOCIETIES. Annual Meeting in *London*. Until June 9.

Wednesday, June 7

INTERNATIONAL CONGRESS OF BUILDING SOCIETIES. Annual Meeting in *London*. Reception at Lancaster House, S.W.1.

SOCIETY OF CHEMICAL INDUSTRY, At the Science Museum, South Kensington, S.W. " Plastics—the Phenolic Types and their Uses." By George Dring, B.SC. 4.30 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

Our mission to the lower-paid workers 710

Why is it more dignified to eat sausages than to sell them? 714

An architectural society takes up the slum problem 714

Inigo Jones was more than a sort of superior scene-shifter 723

Is Covent Garden Opera House to be demolished? 724

Cheap money is now available for building houses for letting 730

A machine for scouring babies' bottles 730

"Most of our present-day buildings have been born in sin and conceived in iniquity" 733

○

INDUSTRIAL ART EXHIBITION

A reception in connection with the Exhibition of British Industrial Art in Relation to the Home was held at the house of Mr. and Mrs. Hudson, Wood Street, W.1, last week. Guests were invited to meet Lord Gorell, Sir Philip Sassoon and the Chairman and Executive Committee of the Exhibition, which is to be held at Dorland House from June 20 to July 12.

Lord Gorell, C.B.E., M.C. (President of the Exhibition and Chairman of the Government Committee on "Art and Industry"), said that we could afford to lose no time before the chief recommendation of the Government Committee was put into effect, namely, the holding of selected exhibitions of the most progressively designed productions of British industry. The Exhibition at Dorland House in June would show what remarkable progress had already been made in this country. There would be little copying of foreign designs in the Exhibition, for English designers had plenty of imagination and a great inherited tradition.

Sir Philip Sassoon, Bt., G.B.E., C.M.G., said there was no real reason why the industrial art of a mechanised age should not be every whit as fine, in its own way, as was the art of the ages of handicrafts.

CONGRESS OF BUILDING SOCIETIES

The meetings of the International Congress of Building Societies and the annual meeting of the National Association of Building Societies will be held in the Wharncliffe Rooms, Hotel Great Central, London, N.W. from Tuesday, June 6, to Friday, June 9. On the morning of June 9 Sir Raymond Unwin is to speak on "The Value of Good Design in Dwellings."

Recent contributors to the subscription list of the Special Committee for Public Relations of the Building Industries National Council, are as follows :— The Cement Marketing Co., Ltd., (2nd instalment of £500) £125 ; the Midland Brick Association, £10 10s. ; Leicestershire Brick Manufacturers' Association, £10 10s. ; South Eastern Federation of the Building and Engineering Brick Trade of England and Wales, £50 ; the National Fed. of Building Trades Employers, £250 ; Prior Burners, Ltd., £1 1s.

Subscriptions to the fund, which has now reached £2,283 6s. 10d., should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.

ARCHITECTURAL ASSOCIATION

Following is the list of Officers and Council of the Architectural Association elected for the session 1933-1934 :—

President : Mr. C. Lovett Gill, F.R.I.B.A. Vice-Presidents : Messrs. L. H. Bucknell, F.R.I.B.A., and C. H. Holden, F.R.I.B.A. Hon. Treasurer : Mr. G. Grey Wornum, F.R.I.B.A. Hon. Secretary : Mr. J. R. Leathart, F.R.I.B.A. Hon. Librarian : Hon. H. A. Pakington, F.R.I.B.A. Hon. Editor *A.A. Journal* : Mr. Lionel G. Pearson, F.R.I.B.A. Past President : Mr. A. B. Knapp-Fisher, F.R.I.B.A. Ordinary Members of the Council : Messrs. E. W. Armstrong, A.R.I.B.A., H. Chalton Bradshaw, F.R.I.B.A., G. R. Dawbarn, F.R.I.B.A., R. E. Enthoven, F.R.I.B.A., W. R. F. Fisher, M.A., A.R.I.B.A., P. D. Hepworth, F.R.I.B.A., W. M. Keesey, M.C., F.R.I.B.A., T. A. Lodge, F.R.I.B.A., E. B. O'Rorke, A.R.I.B.A., and J. C. Shepherd, A.R.I.B.A.

PUTNEY BRIDGE WIDENING

The Chancellor of the Diocese of London has granted a faculty applied for in a Consistory Court by the L.C.C. to throw into the public highway a small portion of the churchyard of All Saints, Fulham, in connection with a scheme for widening the approach to Putney Bridge.

INDUSTRIAL DEVELOPMENT

Mr. C. R. Ashbee, M.A., in a paper on "Recent American Town Planning Developments and their bearing on the English Problem Under the New Act," read at a meeting of the Town Planning Institute last week, pointed out that "in America they have, during the last 25 years, saved from industrial destruction many thousands of acres of lovely landscape. What we in England have to do—it is the next step in the process of industrial development—is to link up our 200 decentralizing towns, somewhat on the lines of the American parkway, but to a unified system, and that with more far-sighted protective legislation indicated in the Government Parks Report of 1928."

NEW WORK AT HASTINGS

On May 28 Sir Humphrey Rolleston opened the new bathing pool at West St. Leonards and the new medical baths at White Rock, Hastings. A boating and paddling lake for children at the eastern end of the front was also opened. Over £150,000 has been spent on these improvements.

LIVERPOOL CATHEDRAL

An exhibition of the architect's plans of the R.C. Cathedral will be held at Rushworth and Dreaper's, Liverpool, from Saturday, June 3 to June 10.

ELECTRICAL ENGINEERS

A conversazione is to be held by the Institution of Electrical Engineers at the Natural History Museum, Cromwell Road, S.W., on Thursday, June 22, from 8.30 to 11 p.m.

£1,000,000 COLLEGE FOR BIRMINGHAM

The Birmingham Education Committee has decided to recommend to the City Council the purchase of a central site with the object of proceeding with the provision of a new college for technical, commercial and art studies. It was stated in the discussion that the complete scheme would involve an expenditure of approximately £1,000,000. The first instalment, including the cost of the site, is estimated at £600,000.

EXTENSIONS TO THE B.I.F., BIRMINGHAM

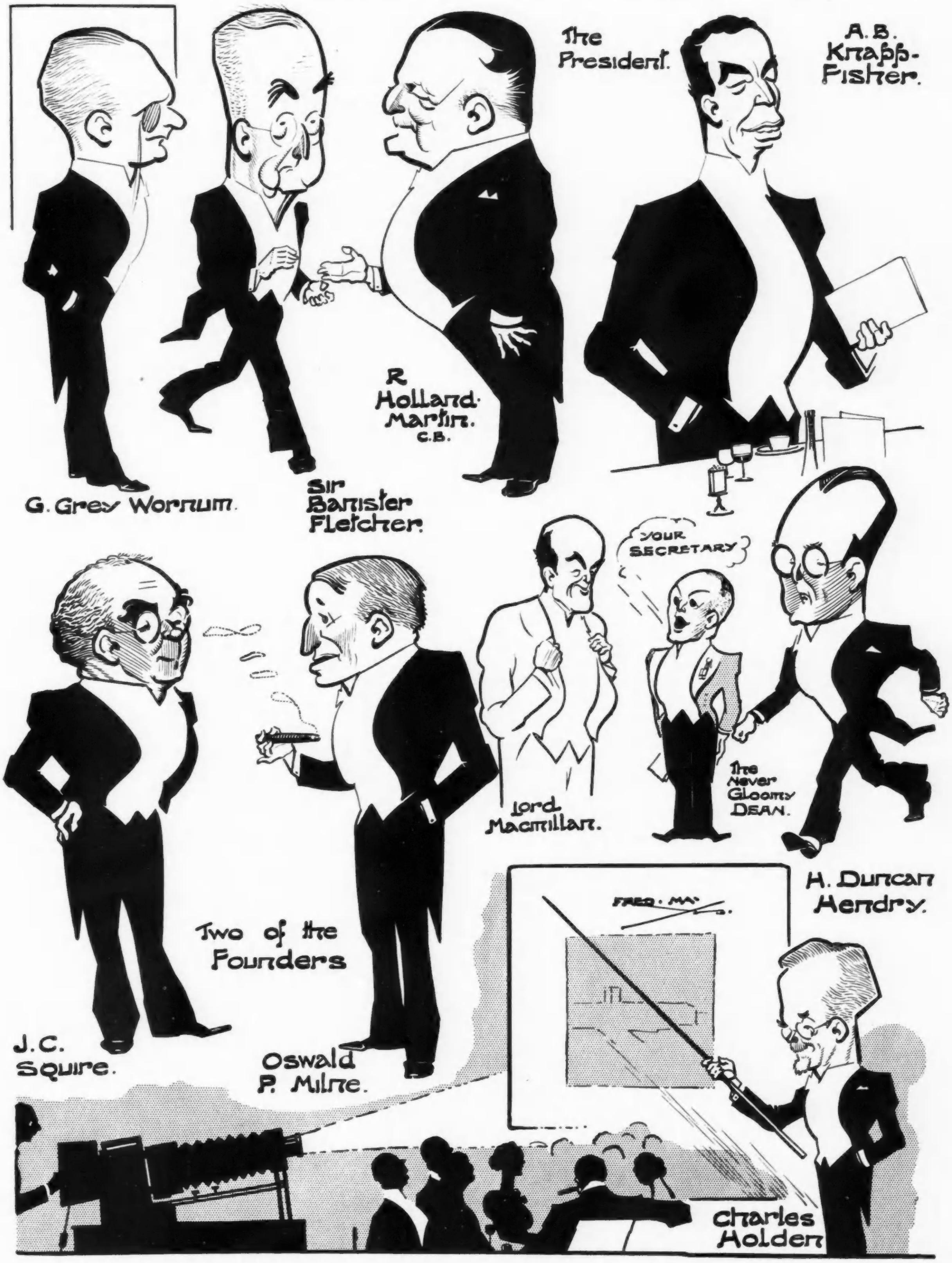
Extensions and re-arrangements of the British Industries Fair grounds and buildings at Castle Bromwich, which will increase the size of the Fair by two-and-a-half acres to fourteen acres, have been authorized by the Council of the Birmingham Chamber of Commerce.

An official announcement issued by the committee states that provisional bookings of space by exhibitors for the Birmingham Section of the 1934 Fair are 37 per cent. greater than corresponding bookings last year for the 1933 Fair. Of a total available indoor space of 244,362 sq. ft., 177,907 sq. ft. have been provisionally booked already for 1934, in comparison with 129,926 sq. ft. provisionally booked at a corresponding date last year.

Plans have now been approved having as an ultimate objective a permanent exhibition building with a total indoor area of 1,000,000 sq. ft., of which 500,000 sq. ft. will be available for exhibits. A 99 years' lease of the site has been negotiated.

Immediately extensions are to be put in

THE ARCHITECTURE CLUB DINNER


The President.
A.B. Knapp-Fisher.
R Holland-Martin. C.B.
G. Grey Wornum.
Sir Banister Fletcher.
YOUR SECRETARY
Lord Macmillan.
The Never Gloomy DEAN.
H. Duncan Hendry.
Two of the Founders
J.C. Squire.
Oswald P. Milne.
FRED·MAY
Charles Holden

Some of the personalities present at the twenty-second dinner of the Architecture Club, held in London on Wednesday of last week. The sketches are by Fred May. A report of the dinner appears on page 733.

hand to add 55,000 sq. ft. of indoor area, of which 30,000 sq. ft. will be let to exhibitors, in time for the 1934 Fair. This immediate addition is part of the larger plan. The additional space to be provided for the 1934 Fair will be set aside for the gas, electricity, building and engineering groups in which congestion has become especially marked.

TEES BRIDGE

Such good progress is being made with the construction of the new £600,000 Tees bridge at Newport, Middlesbrough, that it is expected that it will be ready within a few months. The bridge was scheduled to be completed in 1934.

SLUM CLEARANCE

Slum clearance schemes, estimated to cost £90,000, were approved by the L.C.C. last week.

CHARTERED SURVEYORS' INSTITUTION

The sixty-fifth annual general meeting of the Chartered Surveyors' Institution was held on Monday last. In the report of the Council it was stated that the Institution now comprised 8,213 members, representing an increase of 419 over the membership for the previous year. The Council also announced that preparations are in progress for the next quinquennial International Congress of Surveyors, which, by invitation of the Council, will be held in London in 1934. It is expected that the surveying profession in the majority of European countries will be represented at the Conference, and the co-operation of the Foreign Office has already been secured.

YORKSHIRE ARCHITECTS AND THE SLUMS

A meeting to consider what further action they could take in support of the Prince of Wales' slum clearance appeal was held by the Council of the West Yorkshire Society of Architects in Leeds last week.

It was pointed out that though the necessary committee of the Society had been appointed, the local authorities appeared to be reluctant to carry out the Ministry of Health recommendations which advised local co-operation with architects and others.

After discussion, it was decided to approach the Minister of Health with a view to ascertaining any course which might enable the Society to render more effective support to the Prince's appeal.

A.A. APPOINTMENT

The Council of the Architectural Association have appointed Mr. E. A. A. Rowse to the position of Assistant Director of the A.A. School. He takes up his appointment under Mr. Howard Robertson, Director of Education, on September 1 next.

PRESENTATION TO THE SHAKESPEARE THEATRE

Mr. G. Topham Forrest, F.R.I.B.A., has presented models of the Globe and Blackfriars Theatres to the Shakespeare Memorial Theatre, Stratford-on-Avon.

ARCHITECTURE AS A TRADE

Arriere-vousure bombée et reglée auec vne lunette pratiquee dans vn berceau

[*By ICONOCLAST*]

1. Introduction

[*Architects do, in point of fact, work primarily for a living. We should not blush to admit the fact; it is sometimes not unsalutary to take things on the lowest plane. That is what a well-known architect, who has chosen the pen-name of Iconoclast, frankly proposes to do in the series of articles of which the first is printed below. We do not necessarily agree with every point Iconoclast makes; nor may every reader. But all should find his arguments stimulating.*—ED., *A.J.*]

THE discussion as to whether architecture is an art or a profession has been carried on for many years and generally boils down to the question whether an architect should prize most the fees he receives in payment for his services, and which it is utterly improper for any layman (*sic*) to dispute: or whether the privilege of practising a fine art is the chief reward, the fees being merely a sordid necessity so long as the lay public (also *sic*) neglects to provide for the living of artists out of public funds.

We may be lacking in the dignity either of an artist or a professional man if we consider the practice of architecture as a trade, i.e., the selling of something which society needs at a fair profit to the salesman. If this aspect of the question seems crude, we have only to ask ourselves why it should be more dignified to eat sausages than to sell them.

The trades and the professions have undoubtedly approached one another during recent years, and are less distinctly different categories than was once the case; though there still seems to be a certain pretence that the one has little in common with the other. Yet both have always had the one thing in common, that they are alternative means whereby an individual may earn a living.

There has been perhaps some unspoken suggestion that of the two the professions offer the more honourable livelihood: and though this may be despicably snobbish, there is no doubt that with a great many people it is imagined that the standard of honour in the professions must be higher than in the trades. Whether this has ever been true or not, it has long ceased to be a mark of difference between the two, for it is a generally accepted thing that high ideals and strict integrity are applicable to any means of living which is not in itself dishonest or mean.

The Rotary principle perhaps crystallizes this idea in as happy a way as possible, and if this ideal is respected, there can be no essential difference between a trade and a profession so far as it is regarded as a means of livelihood.

In thus treating the architectural profession, then, as a career for profit, we need not mount the high professional horse and speak of money with bated breath, because the earnings of honest work need no concealment or apology.

Let us, on the contrary, discuss architecture frankly as a trade, in which the wares offered are the skill and services of trained competence, and their prices the scale of charges; and let us then consider whether, as a trade, it offers its fair measure of success: or, if not, whether there is anything we, as organized tradesmen, can do to better our lot.

It is proposed in this series of articles to discuss just this, and by dealing with the subject frankly, to strip it of some of the problems which are of our own making and largely humbug. The subject, as so treated, falls under a number of natural headings, each of which has been discussed elsewhere at some length, but possibly not from just this particular point of view. A few preliminary notes upon these may define the terms of reference, and assist to place each as an integral part of the whole picture.

A natural starting point is the subject of pay. In this our deliberations must be freed from the bounds of the R.I.B.A. scale, viewed as a sacrosanct document; but at the same time directed towards some more orderly scheme than an undignified scramble for the best terms. The subject must be treated less as a likely basis for easy recovery of fees in court, and more as an assessment of fair value for services rendered in the simplest way consistent with efficiency.

Next comes the question of professional organization, with special bearing upon the R.I.B.A., and this leads on to registration, as a measure designed to improve the chances of architectural practice. I shall discuss its present form and its future possibilities, and the nettle will be grasped in no half-hearted manner.

The next heading will be the question of competition as between one architect and another, dealing with the professional code in its bearing upon fair trade. The question, reduced to its elements, will be: "How should architects compete with one another?" frankly admitting the fact that some form of competition is the essence of architectural practice. May this be upon the basis of price, or of ability, or of business energy? There is much food for thought in this question, which has rarely been frankly faced or discussed with all the cards on the table.

We then naturally follow on with the question of advertisement. How should, or how may, the architect make his presence known to the public at large? What sort of fair publicity, if any, is desirable, or likely to improve the practice of architecture as a means of profit? And in dealing with this thorny question it is not proposed to consider dignity as an abstract and self-sufficient quality unless in its relation to fair trade, which in itself is a dignified thing.

It will be seen that the field to be covered is a wide one, and that it is possible that some will be shocked at what they may consider to be an irreverent way of dealing with something almost holy in its mystery. But it is hoped that, whereas the vast majority of architects during the last two years have suffered a most difficult spell of practice, in which money, or its lack, has loomed large, the same majority will realize that our task is much as that of other trades, where efficient training, honest charges, fair competition, adequate publicity and trade organization combine to offer favourable results in a favourable economic atmosphere. In other words, we may as well spend our enforced leisure in tidying up the shop in time for the first customer of the new economic day.

R. I. B. A.

CODE OF PROFESSIONAL PRACTICE

On the recommendation of the Practice Standing Committee the Council have amended the preamble to the Code of Professional Practice to read as follows:—

A member of the R.I.B.A. is governed by the Charter and Bye-laws of the Royal Institute. The following clauses indicate in a general way the standard of conduct which members of the R.I.B.A. must adhere to, failing which the Council may judge a member guilty of unprofessional conduct, and either reprimand, suspend or expel him or her.

Cases of unprofessional conduct not specifically covered by these clauses are dealt with by the Council, having regard to the particular circumstances of the case.

The Code of Professional Practice is printed on pages 23–25 of the current *R.I.B.A. Kalendar.*

MAINTENANCE SCHOLARSHIP

The R.I.B.A. offer, for award in July, 1933, the Ralph Knott Memorial Maintenance Scholarship, tenable at the School of Architecture of the Architectural Association, London. It is of a value of about £45 per annum, and is available for applicacants in England, Scotland and Wales.

The scholarship will be available in the first instance for one year, and will be renewable for two further periods of one year each. It is intended to enable a student who has not the necessary means, to attend an approved course at the Architectural Association School of Architecture. Students who are already taking such a course are also eligible to apply for the scholarship.

T. Trevor Sawday, A.R.I.B.A., who has just been elected president of the Leicester and Leicestershire Society of Architects.

The value of the scholarship, up to the limit stated, will depend upon the financial circumstances of the parents or guardians of the candidates. The parents or guardians will be required to furnish particulars, on the proper form, of their financial position.

Particulars and forms of application may be obtained, free, on application to the Secretary to the Board of Architectural Education, R.I.B.A.

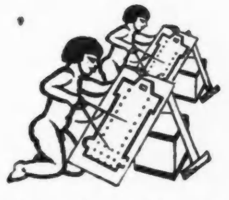
The closing date for the receipt of applications, duly completed, is July 1, 1933.

NEW BUILDING

The Rt. Hon. Lord Howard de Walden (Hon. F.R.I.B.A.) is to lay the foundation stone of the new R.I.B.A. building, and the ceremony will take place at 3 p.m. on Wednesday, June 28.

The accommodation for those wishing to attend the ceremony will be limited to 500, and admission will be by ticket only. Tickets will be allotted to members in order of application, and those who wish to attend the ceremony are therefore requested to apply to the Secretary of the R.I.B.A. at an early date.

COMPETITION NEWS



SURBITON HOSPITAL COMPETITION

The attention of readers, and particularly of intending competitors, is drawn to three errors which regrettably crept into the analysis of the conditions of this competition appearing on pages 680-2 of last week's issue:—

(1) The sending-in date is September 1, NOT September 21.

(2) There is no error in the rate per foot cube. It is pointed out that on the last page of the Conditions, under *Estimate of Cost*, the last paragraph clearly defines what is intended. While the price is to be stated at 1d. per cubic foot, the competitor is also to state his price per cubic foot in making up his estimate.

(3) The sentence on the placing of the power house should have read: "the power house will certainly *not* be placed on the south-west border." On this point the Assessor, Mr. C. Ernest Elcock, writes in a letter to the Editor that the S.W. border "is the very last place in the world to place a power house and if the writer had stated 'on the north-east border' his remark would have been understood."

"It may interest you to know," he further continues, "that over 300 applications have been received for Conditions; and, so far, very few questions have been asked consequent upon their perusal."

TOWN HALL FOR HACKNEY?

It is probable that the Hackney Borough Council will erect a new town hall, which will be the subject of an architectural competition. The planning of Hackney's chief municipal building (states *The Hackney Gazette*) ought undoubtedly to be competitive, and should not be left to the creative brains of one man or one firm.

BEXHILL ENTERTAINMENTS HALL

The Bexhill Town Council propose to erect an Entertainments Hall on what is known as the Coastguard site, at an approximate cost of £50,000. No further step has been taken by the Council in the matter, so far, except to decide that a competition in accordance with the rules of the R.I.B.A. will be conducted with respect to designs and an Assessor appointed.

Prestwick Competition

Mr. A. Graham Henderson, F.R.I.B.A., the assessor in the competition for municipal offices and public baths at Prestwick, Ayrshire, has made his award as follows :—

DESIGN PLACED FIRST (£200) : *Mr. R. Mervyn Noad, A.R.I.B.A., of 261 West George Street, Glasgow.*

DESIGN PLACED SECOND (£100) : *Messrs. Wylie, Wright and Wylie, FF.R.I.B.A., of 204 West Regent Street, Glasgow.*

DESIGN PLACED THIRD (£50) : *Kininmonth and Spence, AA.R.I.B.A., of 16 Rutland Square, Edinburgh.*

The designs submitted by the following were commended by the assessor : Messrs. T. Harold Hughes and A. G. Bryett, 121 Douglas Street, Glasgow ; Mr. James Carruthers, 209 St. Vincent Street, Glasgow ; and Messrs. John Burnet, Son & Dick, 16 Blythswood Square, Glasgow.

The first and second premiated designs are illustrated on pages 717-722.

The Designs Reviewed

We must surely congratulate the Town Council of Prestwick upon the enterprise they show in having decided to hold an open competition, and upon the very interesting problem that the programme outlines.

The schedule of accommodation provides that there shall be two buildings. The first is to consist of the Council Chamber suite, the Municipal Offices and the Public Library ; the second of a range of curative and medicinal baths, while the competitor is asked to submit proposals for the development of the remainder of the ground so that the scheme may provide a convenient social centre for the town. The latter proposals do not in the meantime feature within the terms of the competition. Though the conditions do not allow for any very extravagant development of the scheme, since the total "all-in" cost of £25,000 is aimed at by the promoters, the solution has not been punished and the promoters have not been unduly surprised.

Ninety-seven designs were submitted by architects practising in all parts of the country, but there is only one "die-hard" Scot to be recognized. National sentiment, however, must be dismissed in considering the problem of satisfying the elevational demands of this problem where a building with fitting municipal dignity must be so intimately associated with lighter social functions. Nothing short of unaffected and straightforward grouping of shapes will achieve this.

This conclusion brings me to consider the winning design prepared by Mr. R. Mervyn Noad, of Glasgow, which is developed throughout with easy grace. Little need be said about the elevational design of Mr. Noad's scheme, which is so well massed and tidily conceived that it speaks for itself, but it is a little distressing to note so many weaknesses in the planning of the Council and Municipal Block, most of which, however, appear to be surmountable without harming in any way the design. The Council Chamber, Provost's Suite, Reception Room and service accommodation are not happily related, and the Public Gallery has not been provided with separate access apart from the main and only approach by way of the grand staircase. The lavatory accommodation might be better placed on the plan and a certain practical advantage would be gained by placing the kitchen quarters on the other side of the block. The circulation of this group is not handy and it is safe to say that many better solutions have been presented.

In the design placed second, prepared by Messrs. Wylie, Wright and Wylie, of Glasgow, the planning of the Municipal Block fails to display any sense of dignity. The entrance hall and main staircase should have been given more space, and it is very difficult to understand why such prominence should be given to the lavatory blocks, which have axial approach from the entrance hall. In the Council Suite, the Provost's Room and servery are inconveniently planned, and on the whole there is an absence of straightforwardness in the circulation. The medicinal baths block does not achieve any tidiness and the elevational treatment is in some parts laboured and a little restless.

The design placed third, prepared by Messrs. Kininmonth and Spence, of Edinburgh, has some very good planning features. The Council Suite is admirably arranged and all the difficulties encountered by the first two designs are made to appear as though wilfully created. The baths group is good, though not so tidy and compact as that of the winning design. The elevational treatment is sound and well massed, being maybe a little disturbed in some places.

The design of Mr. T. Harold Hughes, F.R.I.B.A., F.S.I., and Mr. A. G. Bryett, which has been commended, leaves me with very little to say ; while that of Mr. James Carruthers, F.R.I.B.A., also commended, has some very unhappy features. Another commended design by Messrs. John Burnet, Son and Dick, FF.R.I.B.A., displays some slickness in its elevational forms but falls far short of being a satisfactory solution.

One cannot leave this exhibition without noting the very good solutions that have been submitted by Mr. W. F. Valentine, of Kilmarnock, where planning and elevational work is excellent ; the ground layout round the buildings, only, leaves something to be desired. The solution of Messrs. Bradshaw, Gass and Hope, FF.R.I.B.A., of Bolton, is competent and clean, well planned throughout and elevationally good. The ground about the buildings is well laid out and approach to the various departments of the scheme is convenient.

It is difficult to understand why these two very sound designs should have been lost among the "also rans," but maybe the inefficiency of Messrs. Bradshaw, Gass and Hope's fire-escape facilities to the concert-hall will explain just a little.

In conclusion I might observe that the designs and drawings are of a fairly high standard and many very interesting solutions were presented. The development of the ground forming the forecourt to the Municipal Block seems to have been the least satisfactory feature of most of the designs.

G. F.

Competitions Open

June 3.—Sending-in Day. Limited competition for flats to be erected in Lordship Road for the Stoke Newington B.C. Premiums : £250, £100 and £50. Full particulars, etc., published in *A.J.* for March 29.

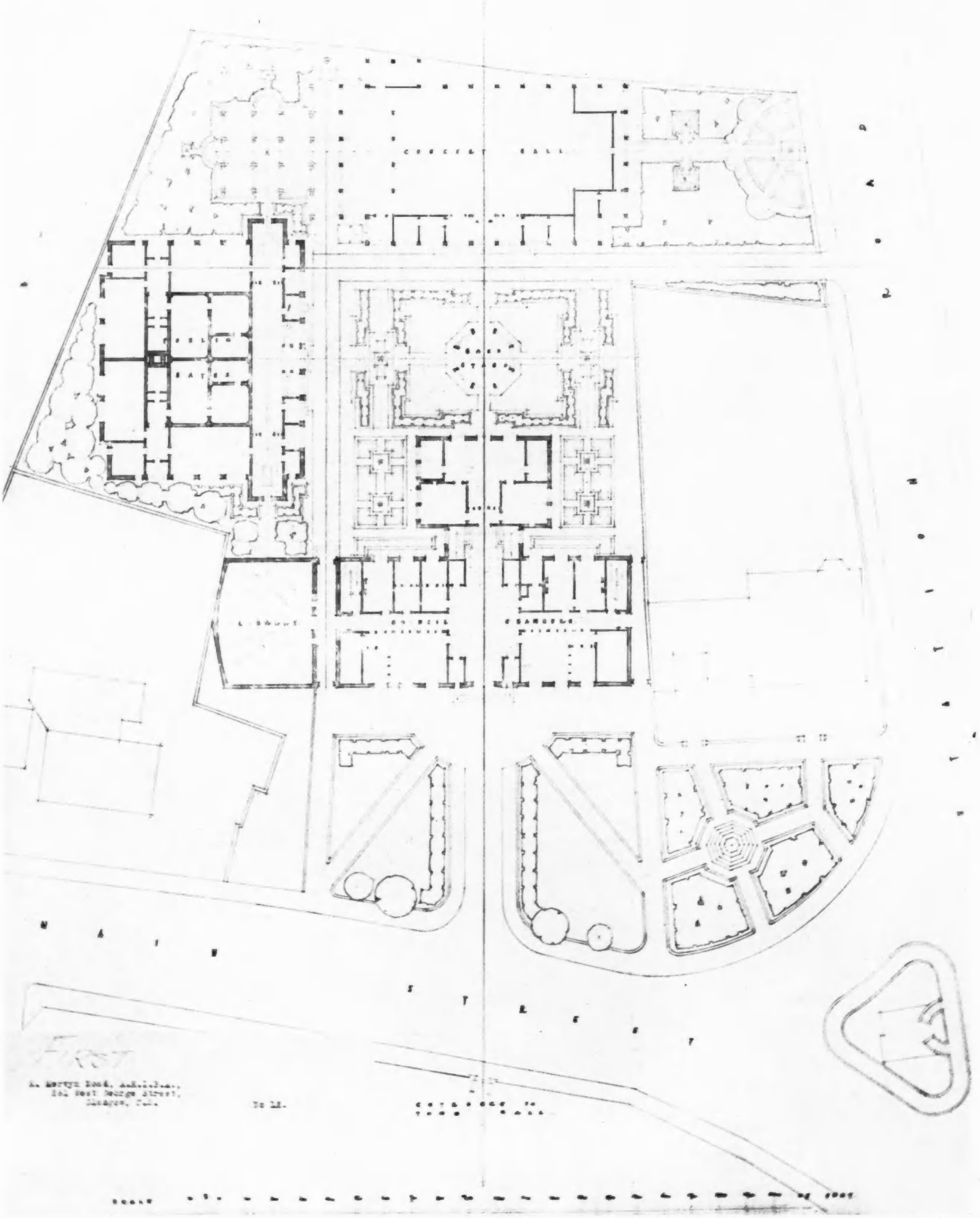
September 1.—Sending-in Day. Proposed Hospital at Surbiton. Assessor : C. E. Elcock, F.R.I.B.A. Premiums : £120, £75, £50 and £25. The conditions, obtainable from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton, were reviewed in our last issue. See also note on previous page.

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Assessor : C. Cowles-Voysey, F.R.I.B.A. Premiums : £350, £250 and £150. Full conditions, etc., were published in our issue for May 17.

Competition Pending

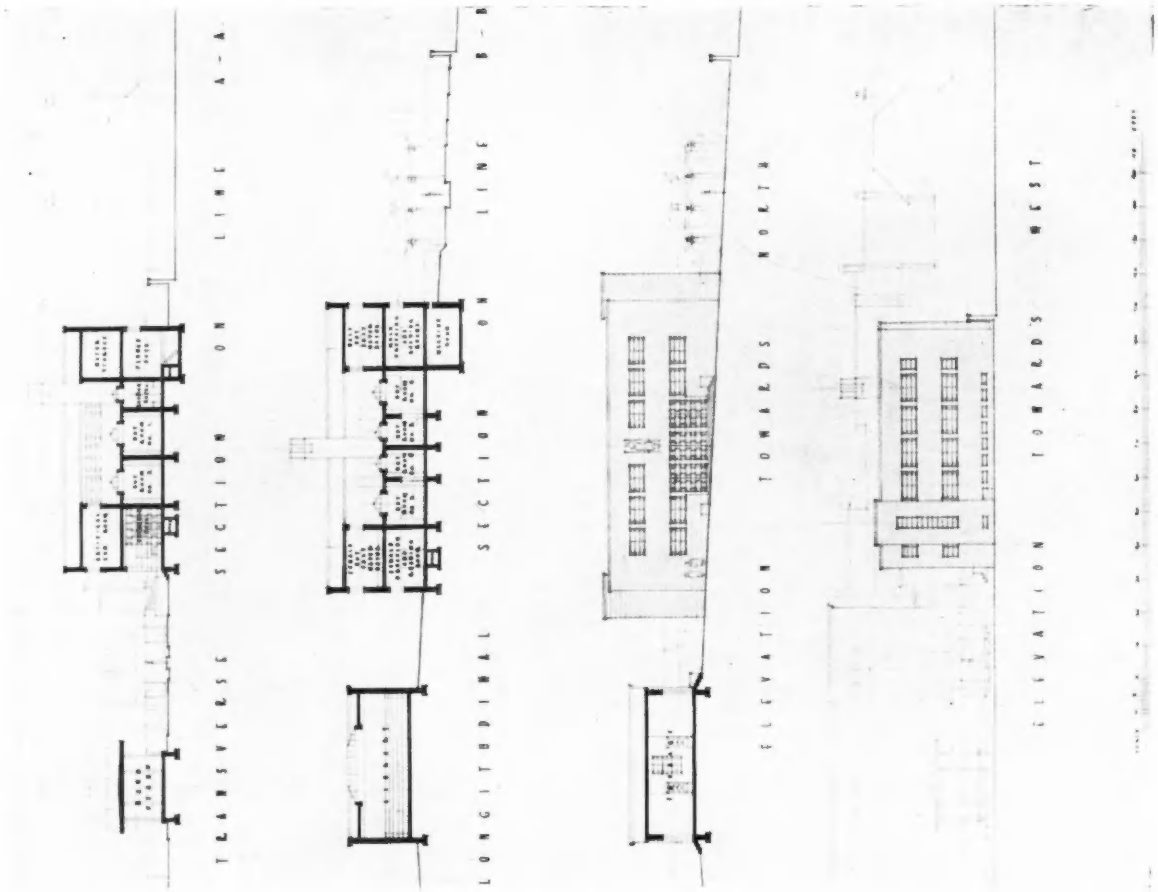
Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor : H. S. Goodhart-Rendel, F.R.I.B.A. Premiums : £150, £100 and £50. Conditions have not yet been drawn up.

THE PRESTWICK COMPETITION

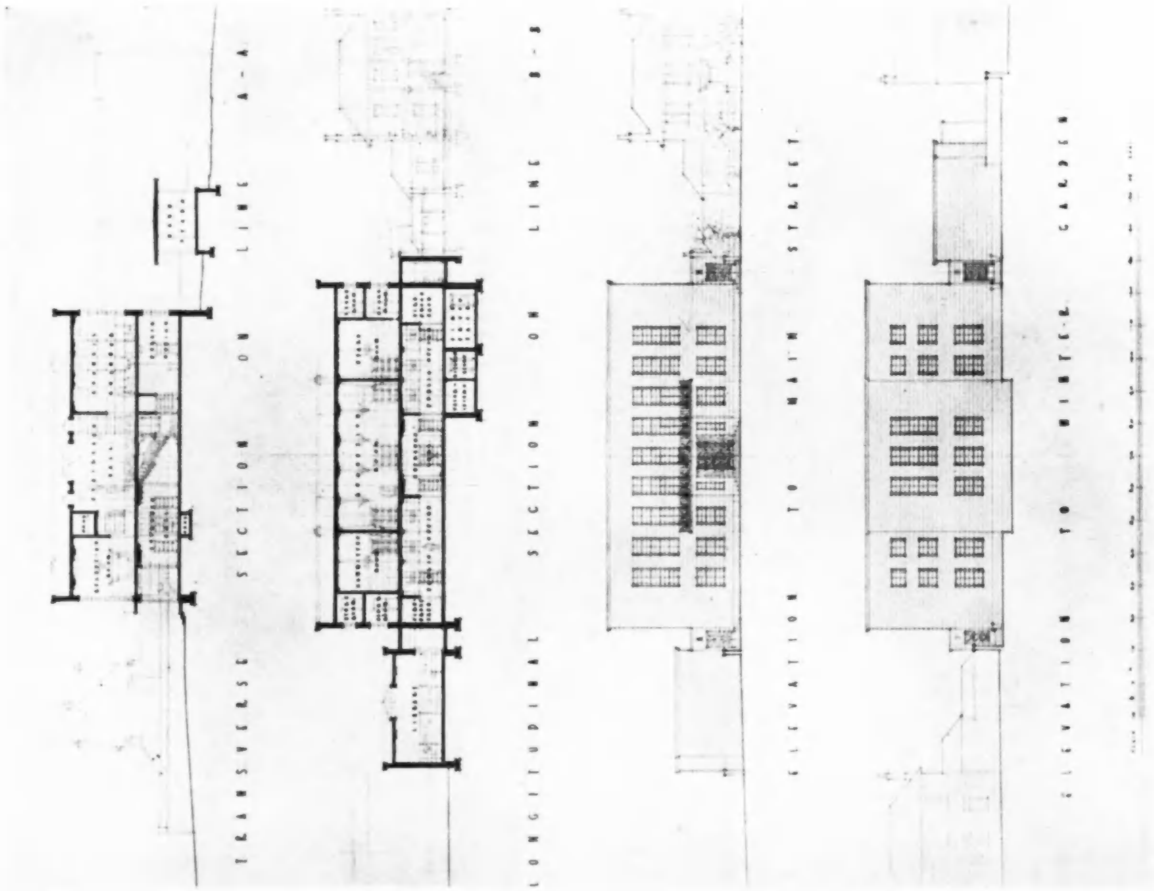

CONCERT HALL
LIBRARY
MAIN STREET

WINNING DESIGN : BY R. MERVYN NOAD

PRESTWICK MUNICIPAL OFFICES


TRANSVERSE SECTION ON LINE A-A
LONGITUDINAL SECTION ON LINE B-B
ELEVATION TOWARDS NORTH
ELEVATION TOWARDS WEST

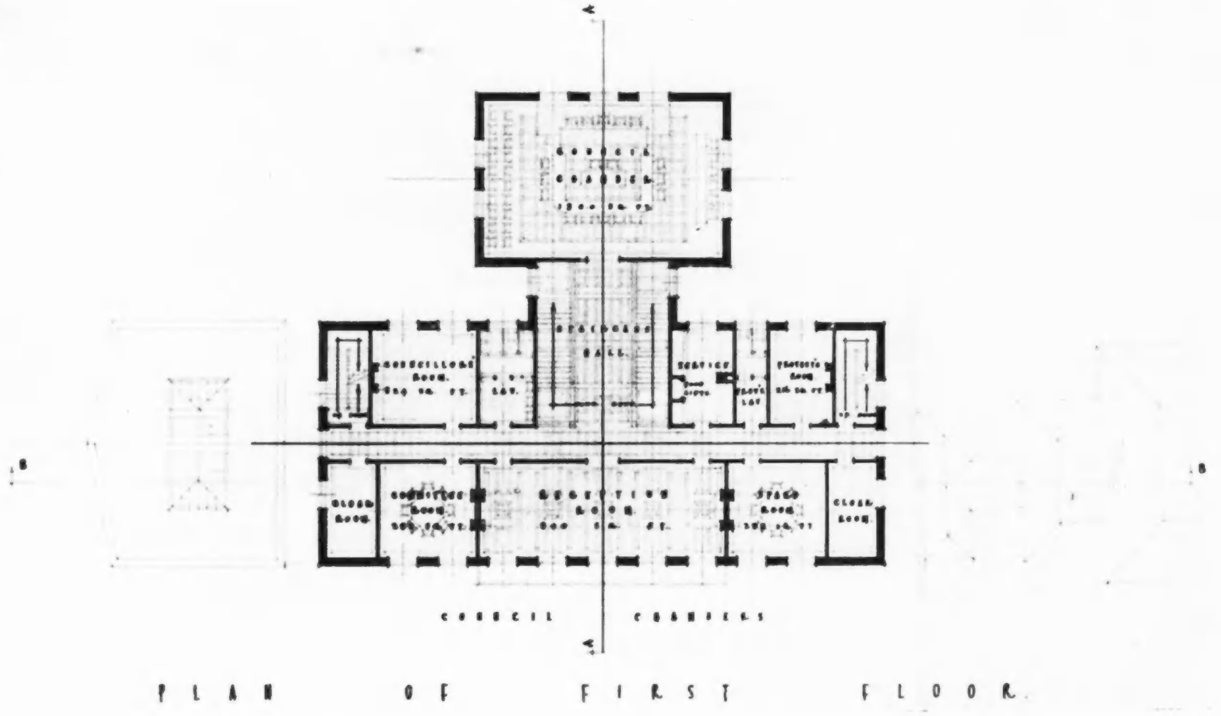
The Public Baths.


TRANSVERSE SECTION ON LINE A-A
LONGITUDINAL SECTION ON LINE B-B
ELEVATION TO MAIN STREET
ELEVATION TO WINTER GARDEN

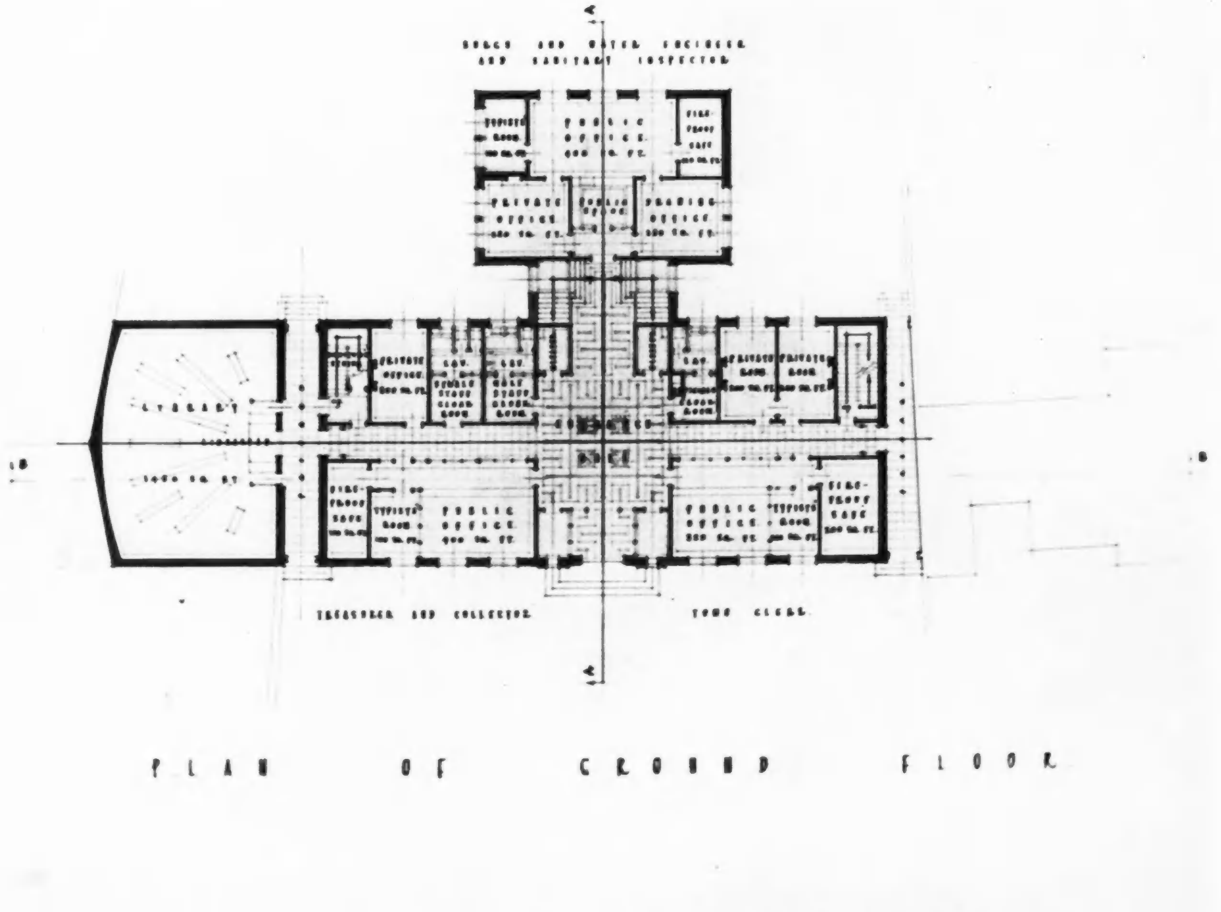
The Municipal Offices.

THE WINNING DESIGN:

AND PUBLIC BATHS COMPETITION

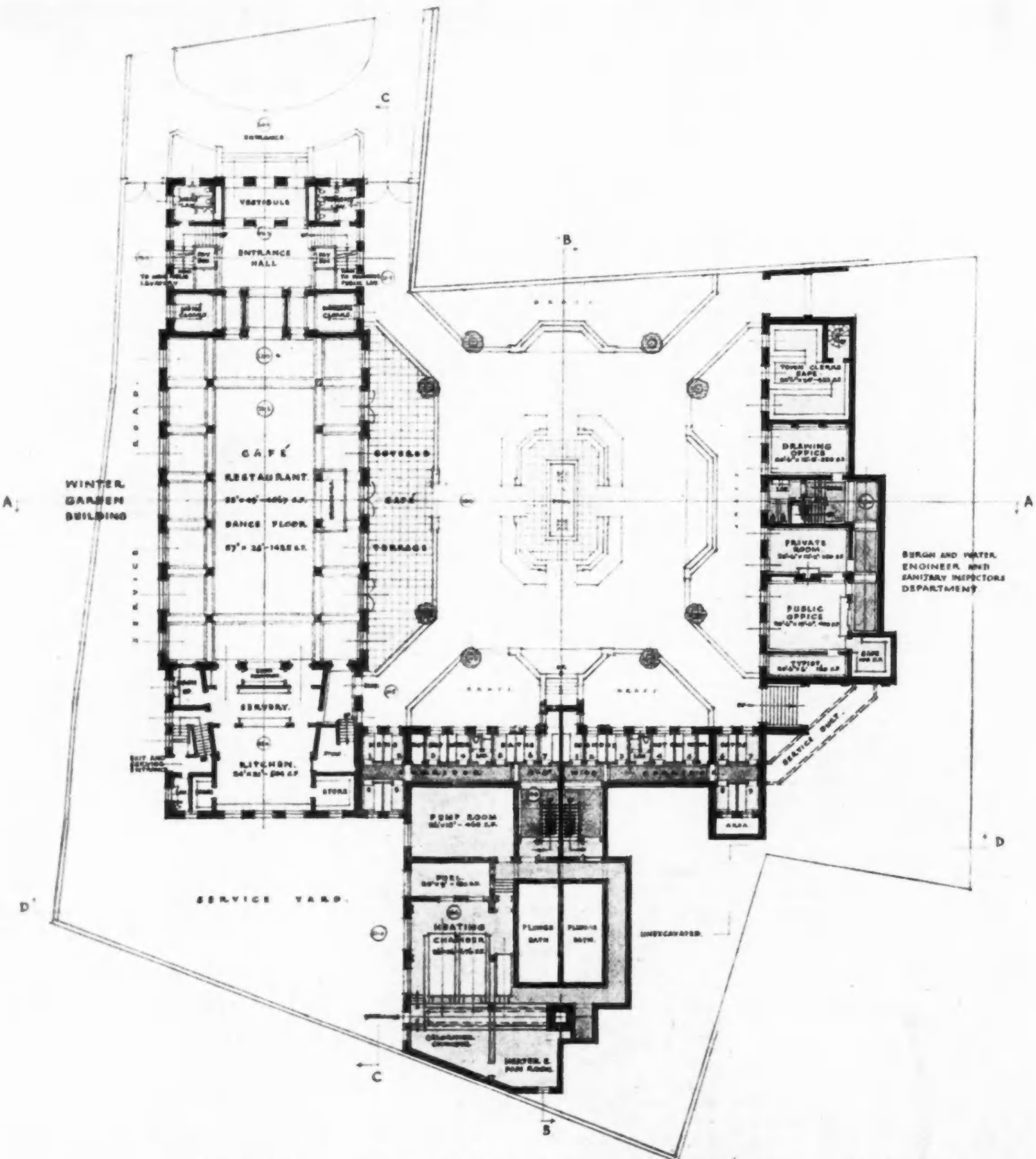

STAIRCASE HALL
COUNCILLORS' ROOM
LAV.
SERVICE
CLOAK ROOM
COMMITTEE ROOM
RECEPTION ROOM
CLOAK ROOM
COUNCIL CHAMBERS
PLAN OF FIRST FLOOR

Ground and First Floor plans of the Municipal Offices.

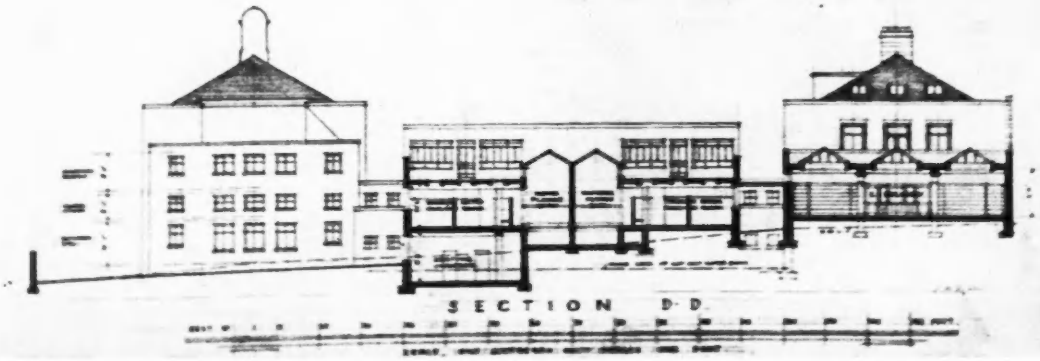

AND SANITARY INSPECTOR
PUBLIC OFFICE
PRIVATE OFFICE
FIRE-PROOF SAFE
LIBRARY
LAV.
TYPISTS' ROOM
PUBLIC OFFICE
TREASURER AND COLLECTOR
TOWN CLERK
PLAN OF GROUND FLOOR

BY R. MERVYN NOAD

PRESTWICK MUNICIPAL OFFICES


C
ENTRANCE
VESTIBULE
ENTRANCE HALL
B
WINTER GARDEN BUILDING
ROAD
SERVICE
A
CAFÉ RESTAURANT
DANCE FLOOR
COVERED CAFÉ TERRACE
TOWN CLERKS SAFE
DRAWING OFFICE
PRIVATE ROOM
PUBLIC OFFICE
TYPIST
SAFE
BURGH AND WATER ENGINEER AND SANITARY INSPECTORS DEPARTMENT
SERVERY
KITCHEN
STORE
SERVICE DUCT
AREA
D
PUMP ROOM
FUEL
SERVICE YARD
D'
HEATING CHAMBER
PLUNGE BATH
PLUNGE BATH
UNEXCAVATED
C
B

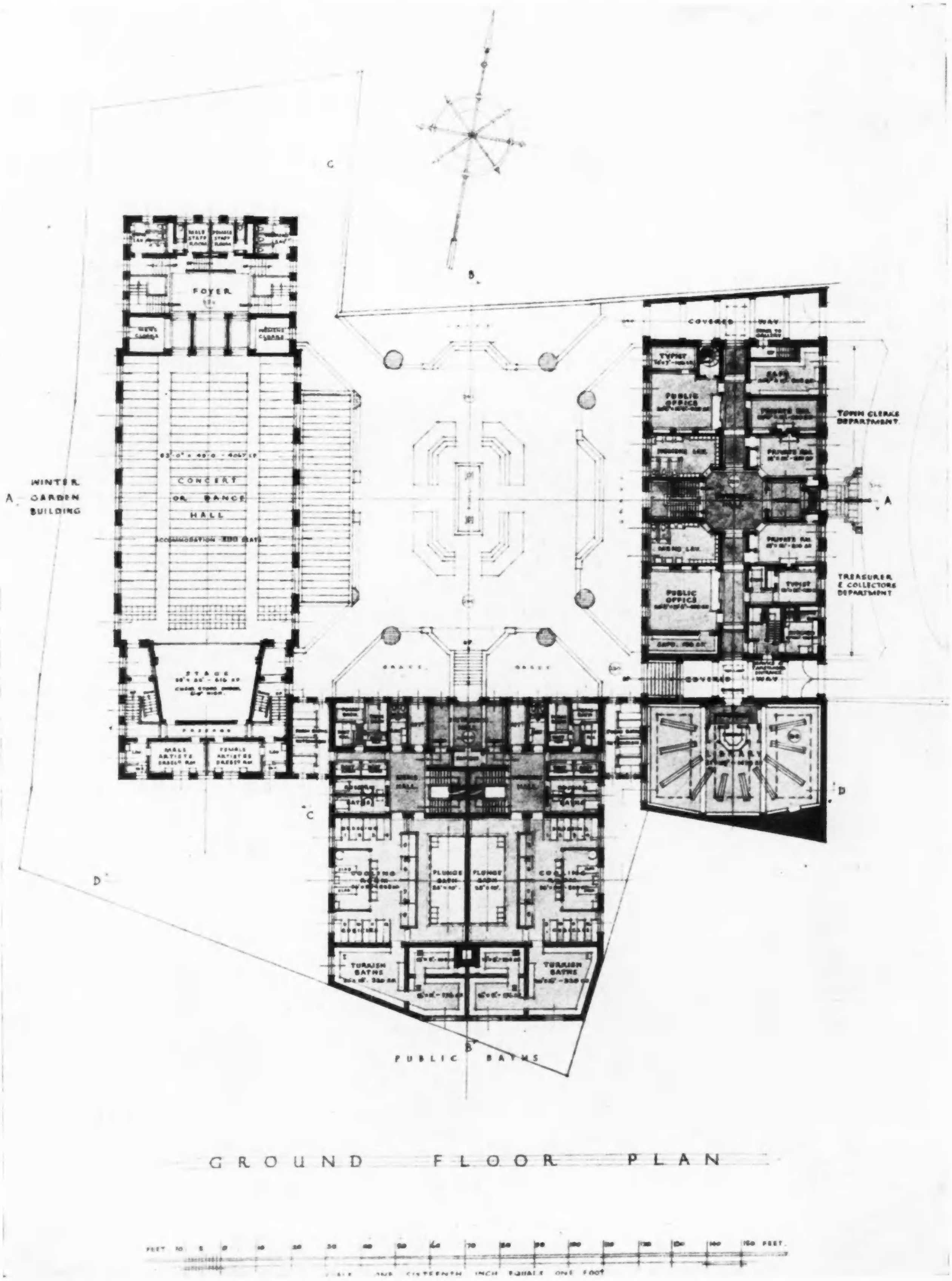
LOWER GROUND FLOOR PLAN



For other sections and elevations see page 722.]

DESIGN PLACED SECOND:

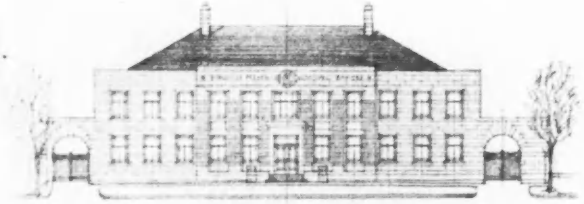
AND PUBLIC BATHS COMPETITION


B
C
FOYER
CONCERT OR DANCE HALL
ACCOMMODATION SEATS
STAGE
MALE ARTISTS DRESS^G RM
FEMALE ARTISTES DRESS^G RM
WINTER GARDEN BUILDING
A
COVERED WAY
TYPIST
PUBLIC OFFICE
PRIVATE RM.
TOWN CLERKS DEPARTMENT
TREASURER & COLLECTORS DEPARTMENT
A
COVERED WAY
LIBRARY
D
C
PLUNGE BATH
PLUNGE BATH
COOLING
COOLING
TURKISH BATHS
TURKISH BATHS
D
B
PUBLIC BATHS
GROUND FLOOR PLAN
FEET 10 5 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 FEET
SCALE ONE SIXTEENTH INCH EQUALS ONE FOOT

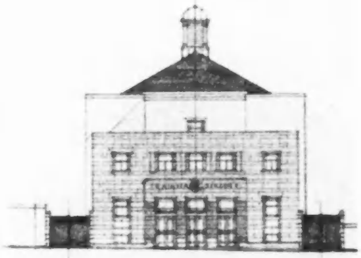
BY WYLIE, WRIGHT AND WYLIE

D

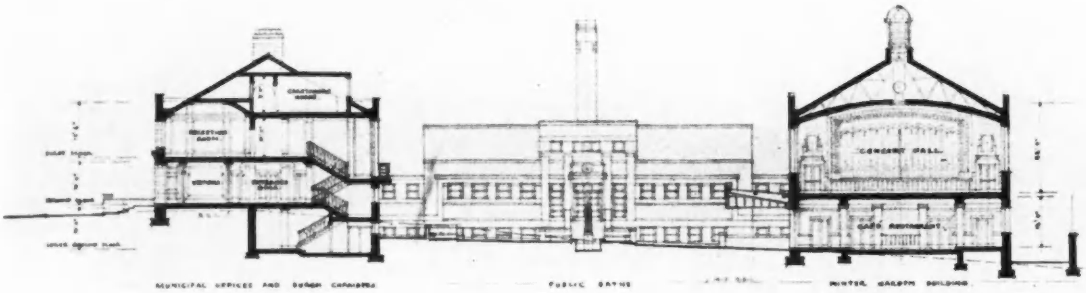
THE PRESTWICK COMPETITION


MUNICIPAL OFFICES AND BURGH CHAMBERS

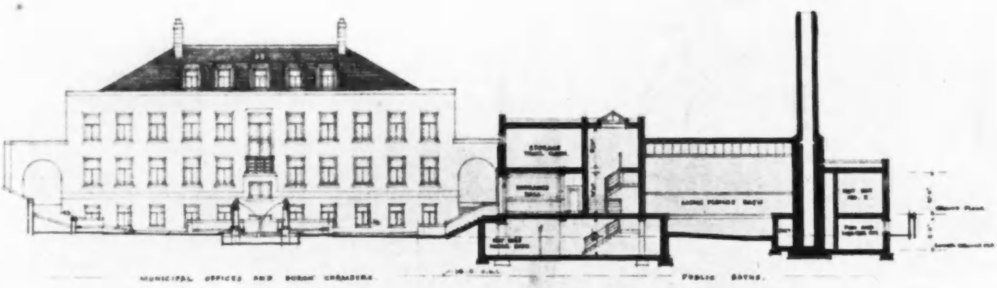
MAIN STREET ELEVATION.


WINTER GARDEN BUILDING.

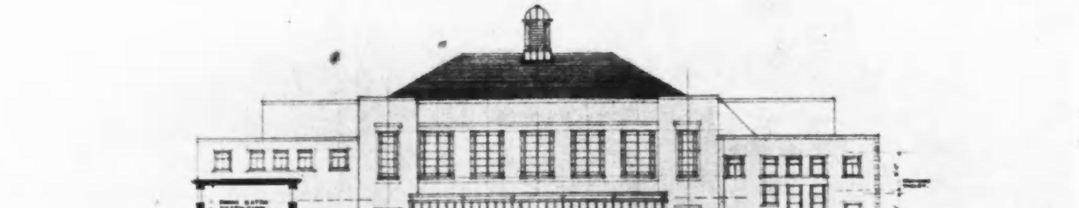
STATION ROAD ELEVATION.


CONCERT HALL.
CAFE RESTAURANT.
MUNICIPAL OFFICES AND BURGH CHAMBERS
PUBLIC BATHS
WINTER GARDEN BUILDING.

SECTION A-A


STORAGE
MUNICIPAL OFFICES AND BURGH CHAMBERS.
PUBLIC BATHS.

SECTION B-B.


PUBLIC BATHS
WINTER GARDEN BUILDING.

SECTION C-C.

SCALE ONE SIXTEENTH INCH EQUALS ONE FOOT.

DESIGN PLACED SECOND: BY WYLIE, WRIGHT AND WYLIE

LETTERS *FROM* READERS

JOHN C. TICKLE
A. SEYMOUR REEVES, L.R.I.B.A.
(Secretary, Association of Architects, Surveyors and Technical Assistants)
JOHN GLOAG
W. S. PURCHON, A.R.I.B.A.
(Principal, Welsh School of Architecture)
J. ROGER HALE, P.A.S.I.
C. W. GLOVER, L.R.I.B.A.

The Housing Act 1933

SIR,—Your Parliamentary Correspondent is in error in stating that money is available from the building societies at 3 per cent. only. The actual terms as reported in the Press last week are that the rate of interest should be 1 per cent. below the usual rate and the period 30 years.

The interest now charged is 5 per cent. in the north and 5½ per cent. in the home counties, so we in the London area cannot expect better terms than 4½ per cent. for 30 years, which, according to *Whittaker*, is £6 2s. 9½d. per cent. This alters matters considerably.

I agree with your correspondent that the Act is unlikely to produce many houses, the weak point being that the rents must be high in order to produce a very moderate return to the investor considering the risk undertaken.

Let us assume that cottages can be built and sold at an all-in cost of £400 each. This includes land, roads, sewers, building, architect, interest during construction, and both the builder's and the purchaser's legal expenses.

A calculation for rent might be made on these lines :—

1. Mortgage interest and sinking fund, £360 at £6 2s. 9d. per cent. . .	£22	2	0
2. Interest on £40 balance at 10 per cent. . .	4	0	0
3. Bad debts, might be anything, but say . .	1	0	0
4. Management 5 per cent.	1	15	6
5. Insurance (fire) . .	0	5	0
6. Repairs and empties (an actual figure on an estate of 350 cottages)	6	10	0
	£35	12	6

—or say 13s. 9d. a week, plus rates, which may bring up the inclusive rent to 17s. or 18s. a week.

An investor would want to be satisfied that this rent can be maintained and that the allowance for bad debts was sufficient, as it is obvious that if the first had to be reduced or the latter was insufficient, the £4 allowed for interest on his own investment would soon disappear or be turned into a minus quantity.

Most councils can now borrow at 3½ per cent. for a 60-year period, making a total of 4 per cent. for interest and sinking fund. If similar terms were available to private enterprise, then cottages would be produced at reasonable rents, but under present conditions the Act looks to be largely "eyewash"! JOHN C. TICKLE

[Our Parliamentary Correspondent writes :

I should have pointed out that 3 per cent. is the minimum *rate of interest. The Ministry of Health Circular No. 1334 of May 22 states : "Societies belonging to the National Association of Building Societies have undertaken to make advances . . . . at rates of interest which are 1 per cent. below their prevailing rates, subject to a minimum rate of 3 per cent. For the present, therefore, the rates applicable to such advances will be 4½ per cent. in London and the Southern Counties, and 4 per cent. elsewhere."*

I do not gather, however, either from the circular or from the debates in Parliament, that 4½ per cent. and 4 per cent. will be fixed for the whole 30-year period of an advance. The rates will surely vary up or down, according as prevailing rates vary. No one can say with certainty, therefore, that 3 per cent. may not become the rate of interest at some time in the future.]

R.I.B.A. Elections and Official Architects

SIR,—My attention has been drawn to a circular (which has been received by some official architects) with reference to the above subject. It contains no address, so I do not know from whence it is issued, but it ends with the names of four candidates for election to the Council of the R.I.B.A.

The circular appeals for the support of these candidates and it states that official architects have no representation on the R.I.B.A. Council or under the Registration Act.

The authors of this circular are misinformed.

The Association of Architects, Surveyors and Technical Assistants (a body associated with the R.I.B.A.) has direct representation on the Council of the R.I.B.A. and also on the Architects' Registration Council. The latter involves statutory recognition of the A.A.S.T.A. as the body representing all salaried architects, whether in official positions or otherwise.

The membership of the A.A.S.T.A. includes official architects and the Association has always given due attention to their interests on the R.I.B.A. Council and elsewhere.

Among other things, the A.A.S.T.A. was the direct cause of the appointment of a Salaried Members' Committee of the R.I.B.A. This Committee contains a number of official architects.

A. SEYMOUR REEVES

Inigo Jones's Headpiece

SIR,—May I publicly disagree with Mr. Julian R. Elsley regarding the drawing of Inigo Jones on the outside cover of THE ARCHITECTS' JOURNAL ?

Apart from the wisdom and nobility apparent in that face, the preoccupied air, the far-away hint of worry, are surely appropriate to the great profession which Inigo Jones practised. In his day he was a modernist : that is to say, even with the backing of Royal patronage he had to endure the futile criticism of the architecturally uneducated, the opposition of the common mind, and the abuse of jealous and stupid people who feared what they could not understand.

The historic row with Ben Jonson arose from Jonson's inability to see that Jones was more than a sort of superior scene-shifter for the court masques, and in that prolonged quarrel Ben Jonson, genius though he was, proved that he was before all other things a narrow, professional literary man.

When Jones gathered up all the tangled odds and ends of Italianate fashions, and wove with perfect scholarship and masterly imagination the most majestic forms. When he burst upon a world that was fumbling architecturally the lucid harmonies of the Banqueting Hall, that tiny section of the great Palace of Whitehall that was never built, he roused and shocked and stimulated and excited the world he lived in.

His later professional life was addressed to that great battle for good design against the dread English Trinity : Ignorance, Indolence and Individualism. What architect today is absolved from that unending warfare ?

Architects, who are about the only class of people who are really trained to think and plan and to be conscious of their civic responsibilities, must meet continually the opposition of the good plain stoopid. Jones began the fight for intelligent design, which is still carried on, and carried on vigorously, by the paper that bears his image on the cover.

If I may make two suggestions : why not, on those occasions when the

JOURNAL has a special number, obtain permission (if it is possible) to reproduce on the cover the fine drawing of Inigo Jones by Vandyke in the Chatsworth Collection. My other suggestion (academic, perhaps) is that as Jones was born in 1573 his troubles were hardly "mediæval." Troubles he certainly had: his chief clients were the Stuarts!

JOHN GLOAG

The Mackintosh Frieze

SIR,—Your reference to the "Mackintosh Frieze" in your last issue reminds me of Theodore Hook's comments on John Croker, the first secretary of the Athenæum Club.

Croker had decided against the Ice House desired by certain members, and in favour of Henning's Sculptures.

Hook wrote as follows:—

"My name is John Croker
I do as I please,
You ask for an ice-house
I give you a frieze."

This little jest seems to have reached Scotland at last.

W. S. PURCHON

What is a Man to Do?

SIR,—In the leader for the issue dated May 24, 1933, mention is made of "the work of men who are architects for profit only, and obey no higher laws." Well, what *is* a man to do, when, by force of circumstances, he has either to disobey the "higher laws" or starve? He may draw architecturally perfect elevations but that is no guarantee that he will be able to persuade the speculative builder (?) to erect in accordance with his drawings.

While on the subject of elevations, it appears to me that most local town planning authorities are satisfied with a rather low standard of architecture. Even where these authorities have had power to approve all elevations for some years, John Blower's adherents seem to have done just what they pleased, irrespective of any drawings submitted for approval. Why should we expect anything different under the new Housing Act?

J. ROGER HALE

Acoustics in the Theatre

SIR,—I was interested to read Mr. E. C. Inston's letter on the above subject, published in your JOURNAL for May 24, and as I had the privilege of reviewing Mr. Richardson's book, *An Introduction to the Acoustics of Building*, in another journal, I can state with confidence that the author merely stated a general fundamental principle in the paragraph referred to.

It is undoubtedly safe as a general rule to group the reflecting surfaces around the origin of sound and dispose of absorbents over surfaces remote from the source.

Whilst it is readily admitted that in cinemas, where the reproduced sound is often much too loud, excessive reverberation in the stage house does introduce difficulties, on the other hand I am able to cite a case in my own experience in which the construction of the stage house in hard glazed bricks gave exactly the required acoustical conditions for direct music and speech.

Generalizing on this matter is difficult, as each individual problem must be dealt with on its own merits, and Mr. Richardson's book does not pretend to be more than an introduction to the subject, the author referring interested students to more serious works for further information.

C. W. GLOVER

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Housing Act, 1924

MR. WILLIAMS asked how many local authorities whose applications to erect houses under the terms of the 1924 Housing Act were out of date had, on consideration, been permitted to complete their schemes; and how many houses were involved.

Sir Hilton Young said that the hon. member would see from the circular which was issued to local authorities on May 22 that local authorities who considered that their proposals were entitled to consideration under the proviso to Section 1 of the Housing (Financial Provisions) Act, 1933, which only became law the previous week, had been invited to submit their applications, supported by full particulars of the grounds on which they were based, before June 30 next, and that he proposed, immediately after that date, in consultation with the Treasury, to proceed to the approval of such applications as were found to fall within the limits of the Act.

Prices of Bricks

Mr. Attlee asked the Minister whether he could state the percentage increase in the price of Fletton bricks and cement at the present time over 1913; and whether he would inquire into the reasons for the increase.

Mr. Shakespeare said that the percentage increase in the price of Fletton bricks since 1913 was 55, and in the price of best British Portland cement 28, but there had been decreases since 1924 of 4 and 23 per cent. respectively. The Minister had already means of information as to the course of the prices in question.

Mr. Attlee asked the Minister whether he was aware of the shortage of Fletton bricks in London, which was seriously hampering building operations; that 80 per cent. of the output of such bricks was controlled by one firm; and what action he proposed to take in the matter.

Mr. Shakespeare said that the Minister understood that the increased activity of the building trade had resulted in a temporary shortage of the sort. He was informed that the firm in question was working at its full capacity to overtake the increase in demand; and that there was no evidence of any likelihood of building operations being seriously hampered. A lag of the sort not unusually accompanied a revival of building activity.

Mr. Attlee also inquired of the Minister whether, in view of the inconvenience and cost caused to builders in London by the insistence on delivery only at one station by the firm which controlled the greater part of the production of bricks, he would take steps to prevent this restriction in the case of all building schemes under the control of his department.

Mr. Shakespeare said that the Minister was not aware of the existence of any such restriction, but he would be glad to consider any particulars submitted to him.

Preservation of Cannock Chase

Mr. Mander asked the Minister of Health if he would state the present position with regard to the preservation of Cannock Chase as a national park, and to what extent the matter was being dealt with by the local authorities interested as part of a joint planning scheme.

Mr. Shakespeare said that the Minister understood that the South Staffordshire and North Worcestershire Joint Town Planning Committee were considering the question of the preservation of Cannock Chase and had approached the local authorities who were not constituent members and whose districts included any part of Cannock Chase. It appeared that four local authorities were concerned, of whom two were already members of the Joint Committee, and a third had, it was understood, agreed to become a member. The fourth, the Stafford Rural District Council, had not yet agreed to join the Committee.

Covent Garden Opera House

Captain Cazalet asked the First Commissioner of Works whether he could give the House any information about the representations which he had received as regarded the future of Covent Garden Opera House and its preservation or demolition.

Mr. Ormsby-Gore replied that he had received no representations such as was suggested, and he therefore regretted that he was not able to give any information in regard to them.

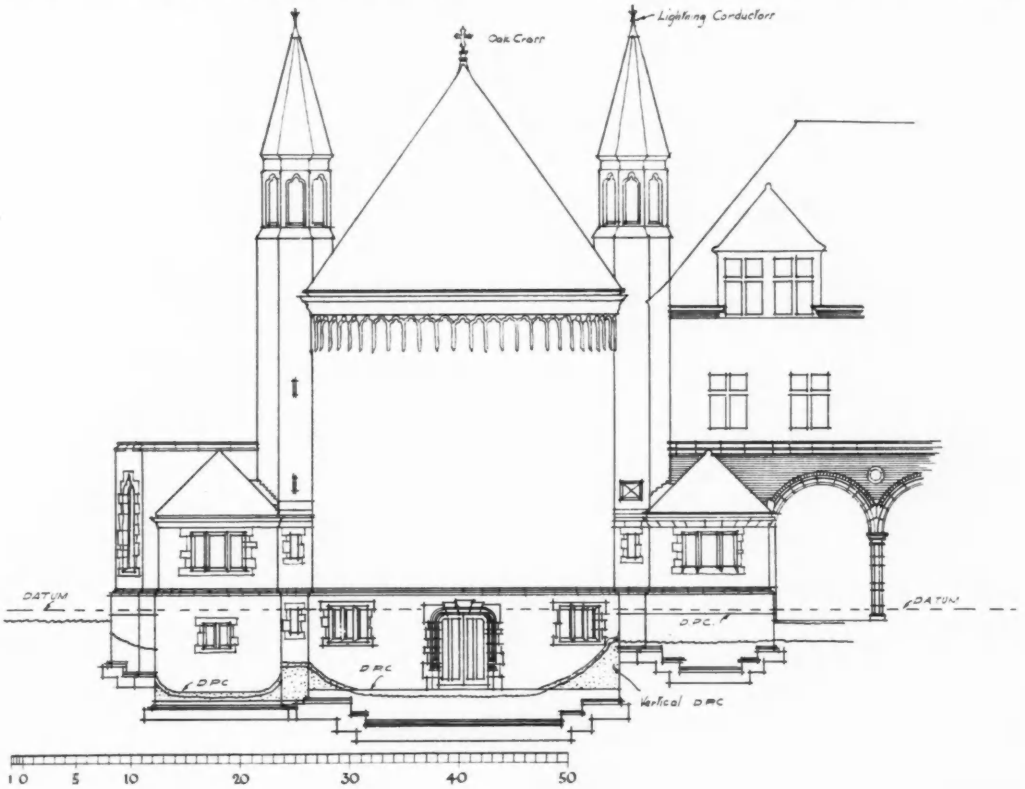
Captain Cazalet then asked if the First Commissioner was aware that, unless some steps were taken in the next few weeks, Covent Garden Opera House was likely to be pulled down, and there would be no opportunity of having opera in this country for many years to come.

Mr. Ormsby-Gore replied that he did not think that concerned his Department.

ON THE AIR

On Tuesday next, June 6, the eighth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Messrs. Frank Pick and John Gloag, who will discuss "The Street."

NEW CHAPEL AT FARNBOROUGH

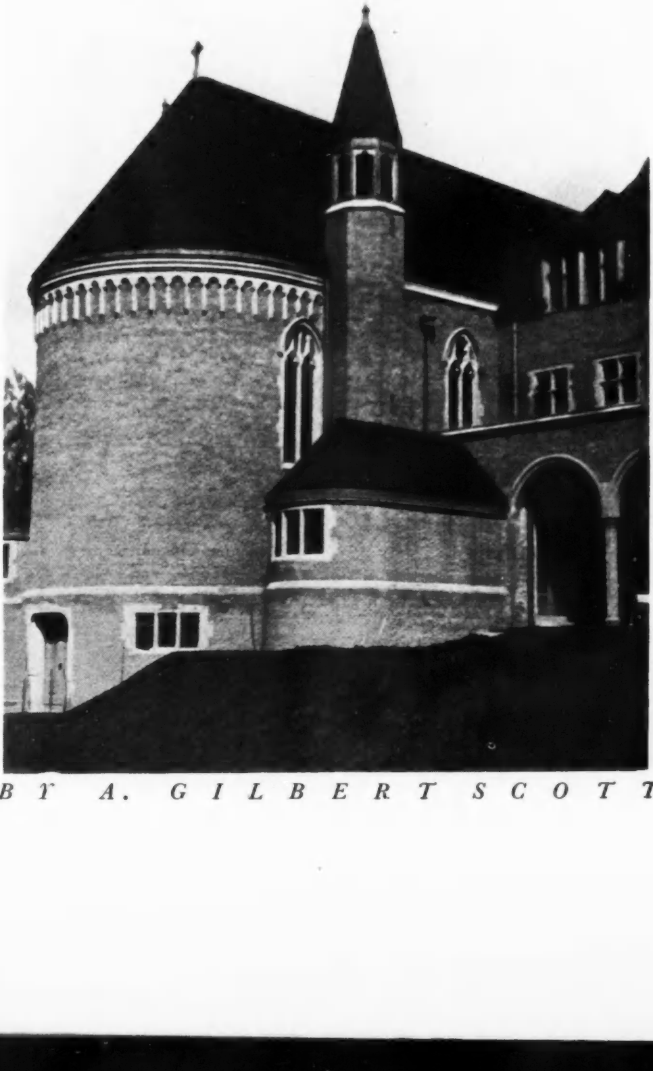


Farnborough Hill, Hampshire, formerly the residence of the Empress Eugenie, has been converted by the nuns of the adjoining Hillside Convent into living quarters, on the lines of a public school, for the girls, whose classrooms have been retained in the old school building.

The present addition provides a new chapel, to seat 400, of which the east elevation is illustrated on this page, and a dining hall.

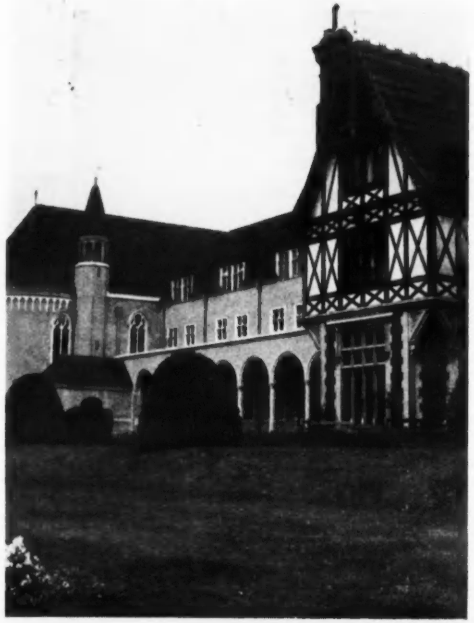
The group of buildings occupies a prominent site, commanding magnificent views. Where the ground falls away steeply, at the eastern end of the chapel, low two-storied vestries are placed to give proportion to the old and new work. The original structure is an ornate version of early French Renaissance; the quieter extension is designed to harmonize with it in colour.

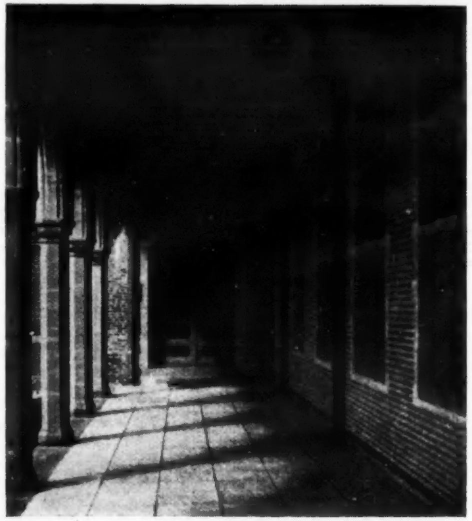
The chapel, which stands fifty feet high, is planned (see page 728) without aisles, but with a cloister on three sides—one yet to be built. The exterior is faced with 1¾ ins. Dutch yellow bricks, with dressings in Clipsham stone, of the same colour. The roofs are covered with plain brown tiles to match the adjoining weathered roofs of the old building.

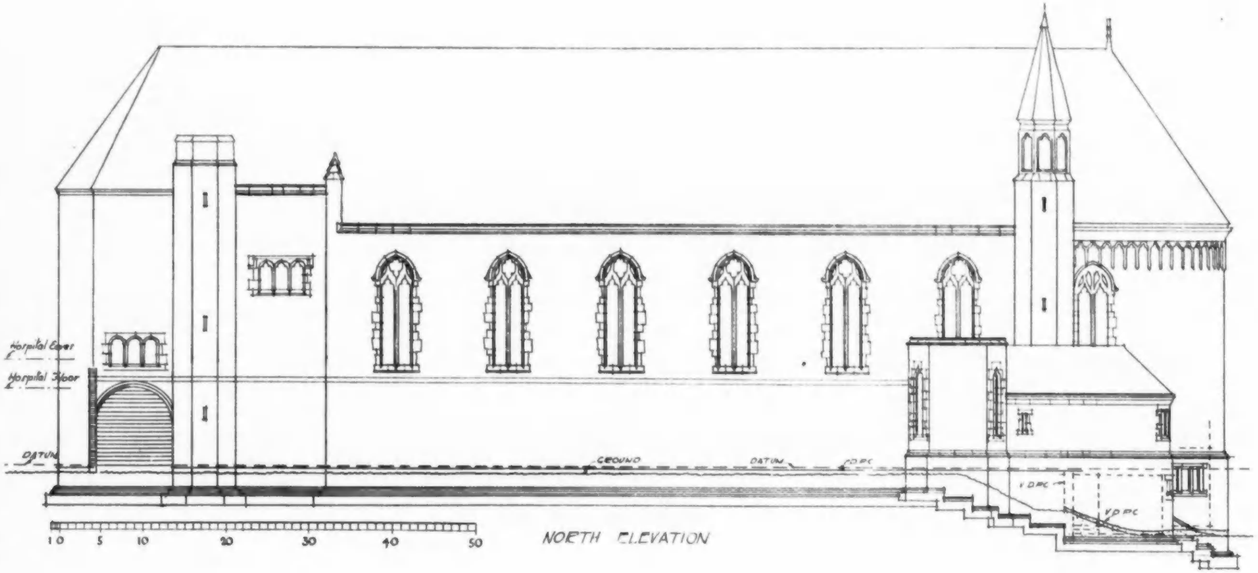


DESIGNED BY A. GILBERT SCOTT

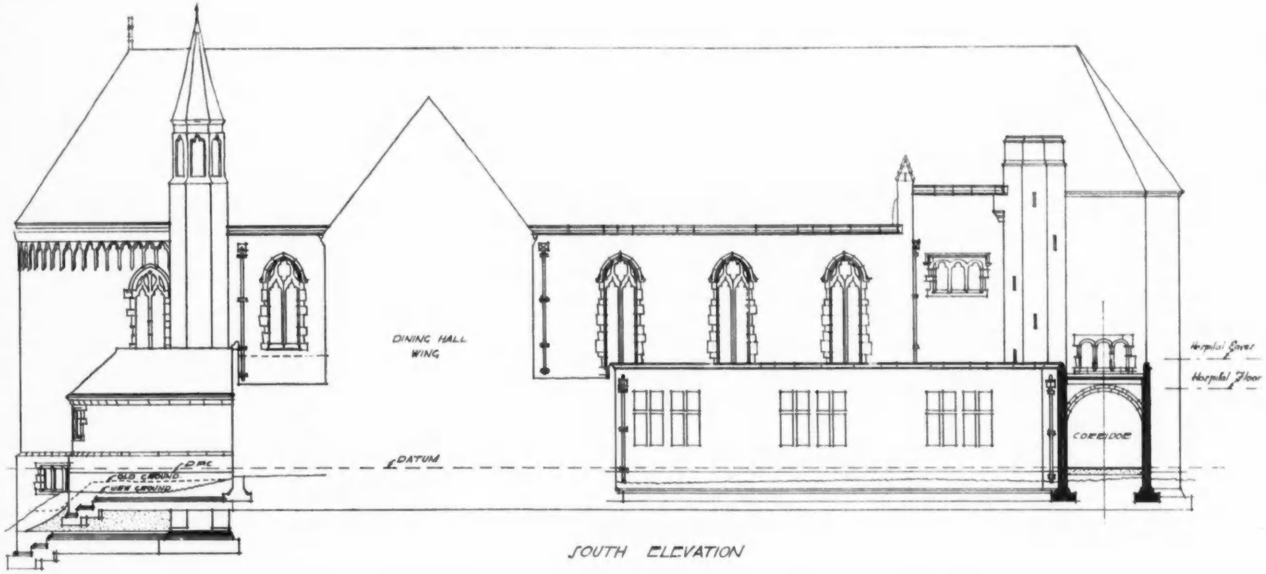
NEW CHAPEL AT FARNBOROUGH



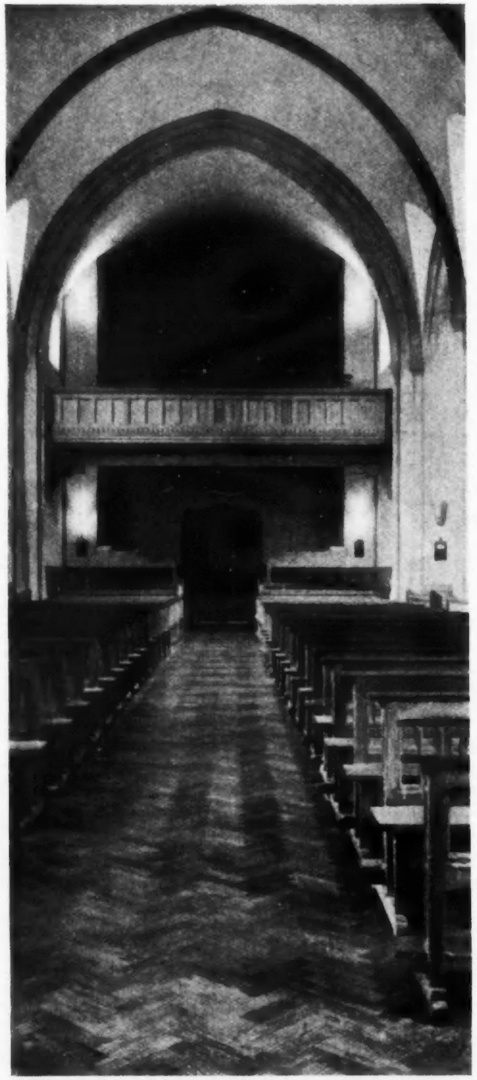



Hospital Eaves
Hospital Floor
DATUM
GROUND
DATUM
D.P.C.
V.D.P.C.
V.D.P.C.
1 0 5 10 20 30 40 50

NORTH ELEVATION

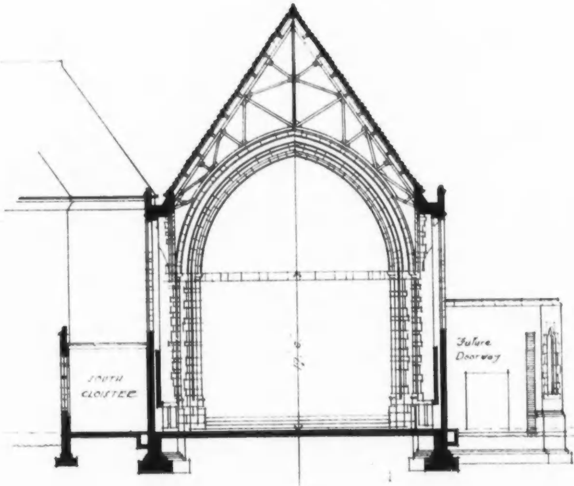

DINING HALL WING
DATUM
D.P.C.
OLD GROUND
NEW GROUND
CORRIDOR
Hospital Eaves
Hospital Floor

SOUTH ELEVATION

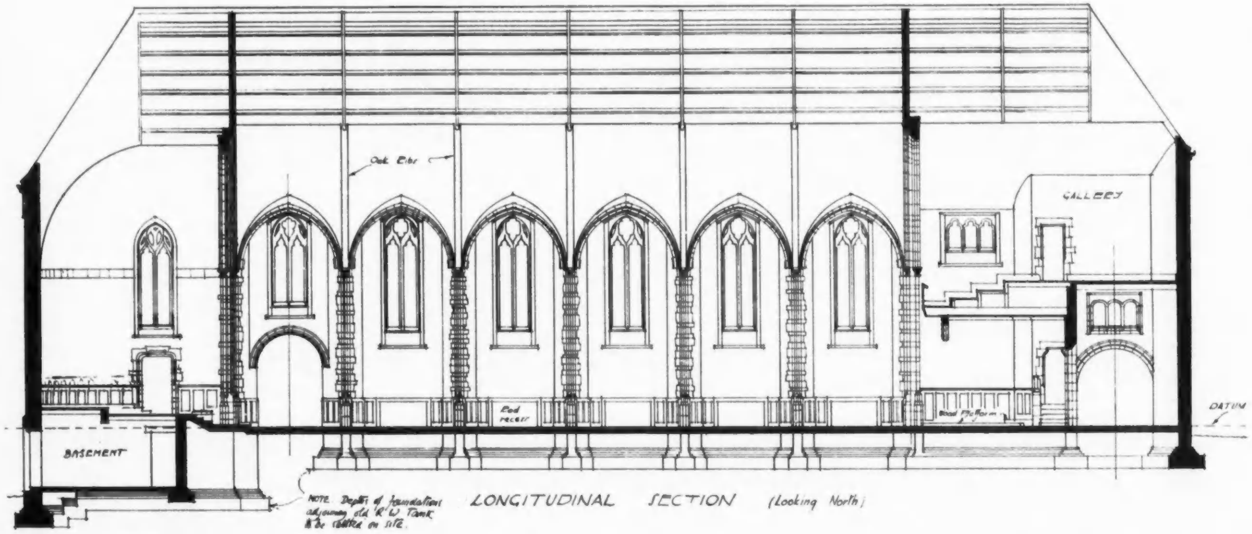


The dining hall, measuring 70 feet by 33 feet, has two stories above it, containing twenty-eight individual girls' rooms, each fitted with hot and cold water. In the upper view on the facing page its arcaded front is seen between the chapel and a bay of the old residence; the lower is of the arcade itself. This arcaded front, being a continuation of the existing Royal Gallery, forms a vista some 215 feet long, from end to end of the buildings, and affords the main traffic artery. A new girls' entrance has been formed, with additional lavatory accommodation, so as to give direct access from the playing fields to the new buildings. Provision is also made for future extensions beyond the chapel.

The chapel, to which are devoted the other illustration in this opening and also those in a supplement with this issue, has, at the west end, as here indicated, a spacious organ and choir gallery; it has separate access from the infirmary for convalescent patients. Heating is by low pressure hot water from existing boilers, enlarged, converted to oil fuel and placed under thermostatic control. The electric lighting in the chapel is so arranged that no lights whatever are visible from its west end.


SOUTH CLOISTER
Future Doorway

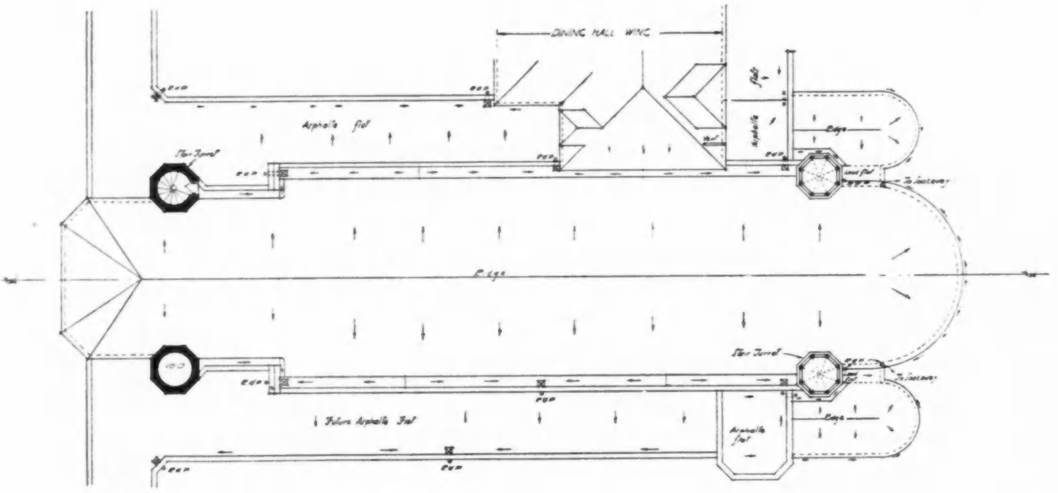
CROSS SECTION


Oak Ribs
GALLERY
Rod recess
Choir Platform
DATUM
BASEMENT
NOTE. Depths of foundations adjoining old R W Tank to be settled on site.

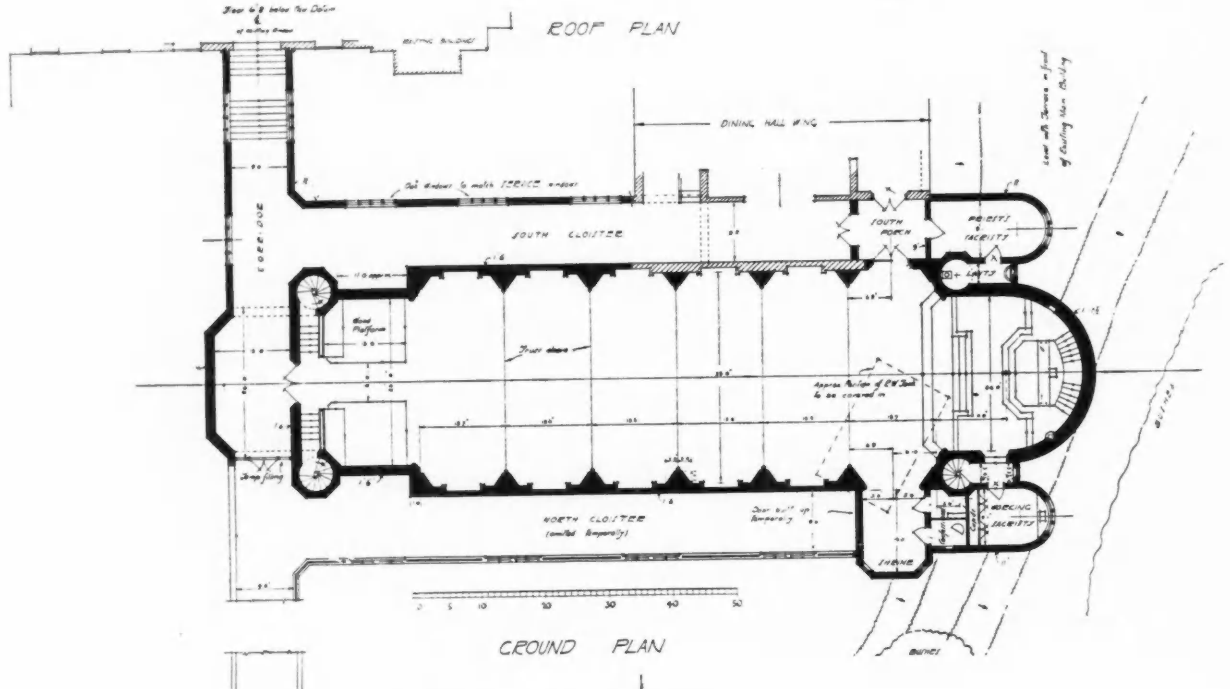
LONGITUDINAL SECTION (Looking North)

DESIGNED BY A. GILBERT SCOTT

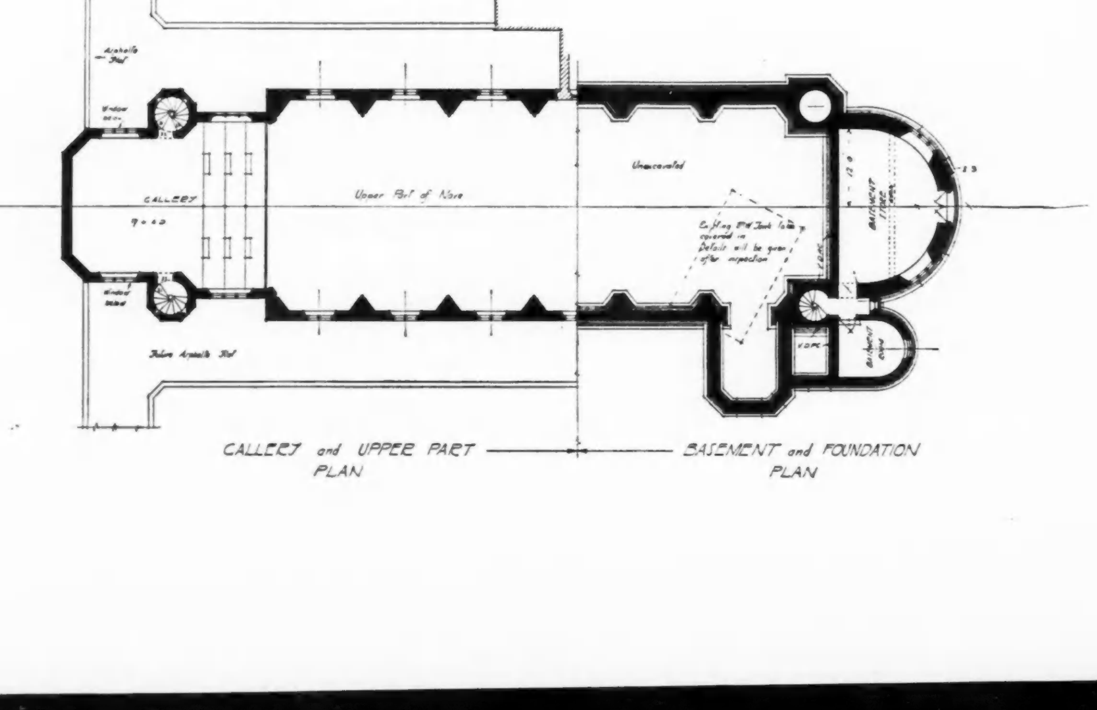
CHAPEL, FARNBOROUGH: BY A. GILBERT SCOTT


DINING HALL WING
Asphalte flat
Stair Turret
Future Asphalte flat
Asphalte flat
Edge
To Gulleys

ROOF PLAN


DINING HALL WING
SOUTH CLOISTER
SOUTH PORCH
PRIESTS' SACRISTY
LAVS
CORRIDOR
Truss above
NORTH CLOISTER (omitted temporarily)
SHRINE
WORKING SACRISTY
0 5 10 20 30 40 50
Bushes

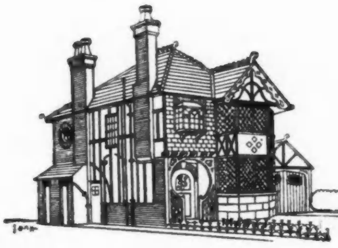
GROUND PLAN


Asphalte flat
GALLERY
Upper Part of Nave
Unexcavated
Future Asphalte flat
BASEMENT STORE

GALLERY and UPPER PART PLAN

BASEMENT and FOUNDATION PLAN

WHAT IS TO BE DONE ABOUT THIS?



[This week, Penates, who opened this series of articles, again takes up his pen to discuss the potential activities of the Building Societies. What was then a Bill is now an Act. And the Act assumes the co-operation of the Societies in financing houses to be built to rent. Last week's contribution cast doubts on the validity of that assumption. Evidence in rebuttal is now adduced. —ED., *A.J.*]

10. Building Society Finance

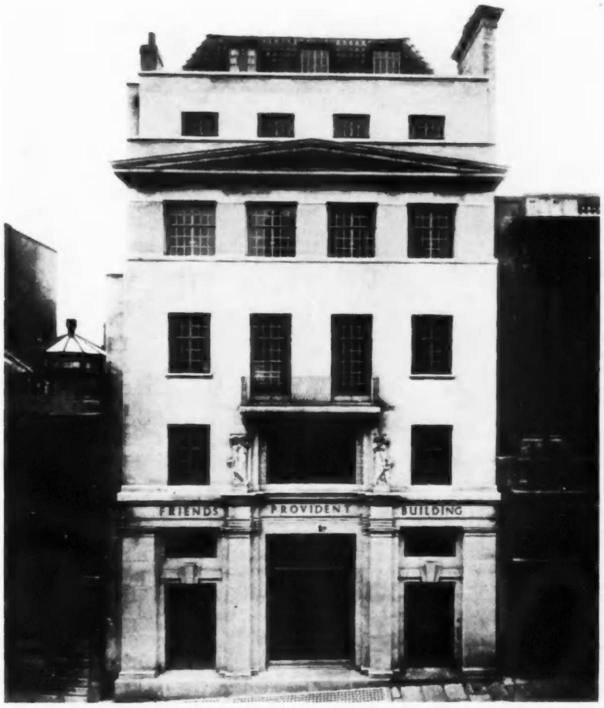
[*By PENATES*]

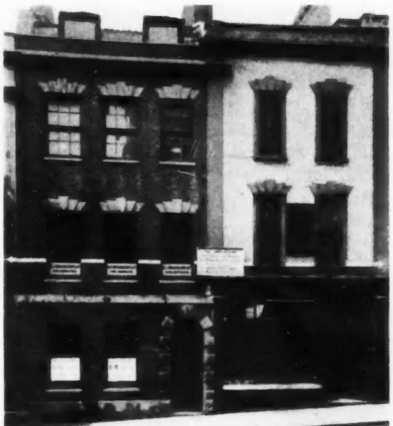
IMPLICIT in the new Housing (Financial Provisions) Act is the intention that the Building Societies, who control a large proportion of the building finance in this country, but have up to the present time advanced money only for the building of houses to be *purchased* by the individual, shall provide cheap money for the building of houses to be built *to let* at low rentals to those who have not sufficiently large incomes to become house owners under the ordinary building society procedure, and the belief that sufficient houses will be built under its provisions to obviate the necessity for further housing activities by local authorities.

Whether cheap houses can be built, and the local authorities relieved of what has been, up to the present time, public work, for the performance of which no alternative machine has existed, will depend for the moment, and until such time as a National Housing Corporation or similar financial institution becomes effective, upon the attitude of the Building Societies.

The Parliamentary Correspondent of this JOURNAL wrote last week, "there is a general feeling, particularly pronounced in building society circles, that the Act is a peculiarly hopeless piece of legislation. It provides little, if any, incentive to the building societies to advance the money needed for the construction of small working-class dwellings to let," but surely there is proof that the societies do

INSURANCE OFFICES

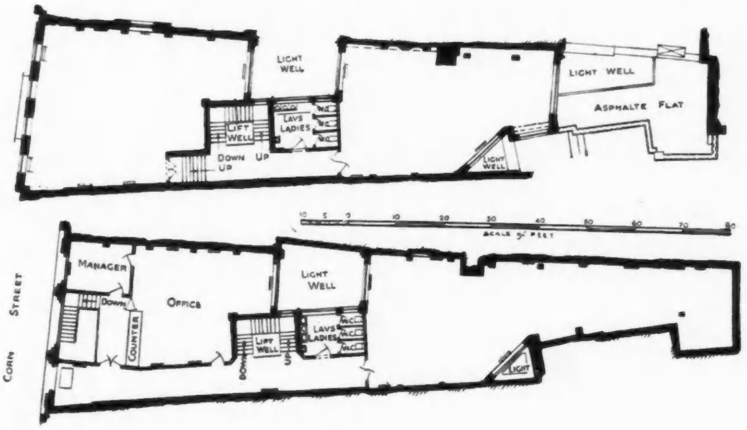




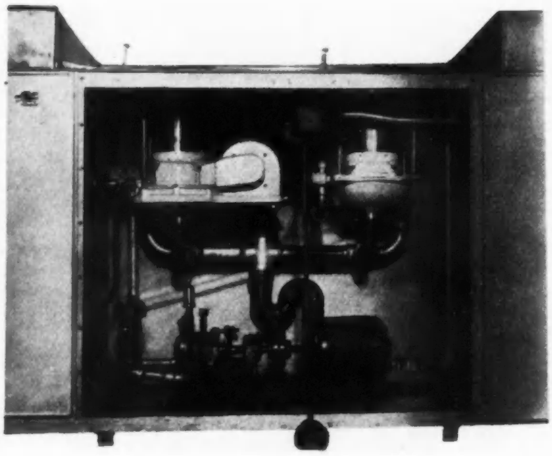
SIR G. GILBERT SCOTT, R.A.,
Architect for the Elevation

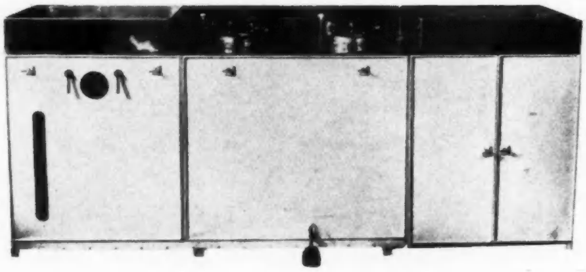
The Friends' Provident and Century Life Office, Corn Street, Bristol, is fireproof throughout. It is of steel construction, faced with Portland stone, and fitted with windows of white anodium metal. The roof is of pantiles. The illustrations show the new frontage, which is embellished with sculptures by Hermon Cawthra; the structures that formerly occupied the site; and plans of the ground and a typical upper floor. The whole of the building will be used as offices, part of the ground and the whole of the upper floors being available for letting.

A. W. ROQUES,
Architect for the Plans



MIDDLESEX COUNTY HOSPITAL:





This machine, installed at the hospital illustrated opposite, scours and rinses babies' feeding bottles by means of two specially designed units, with fluid mixing tank and circulating pump, the latter being foot-controlled by the pedal shown. The work table, scouring and stacking tanks are of polished stainless steel ; and the body is white enamelled. Special attention has been paid to easy and cheap maintenance. Wearing parts are easily replaceable by unskilled labour.

intend to act, and to act immediately, in the announcement that the directors of the Halifax Building Society have decided to co-operate with the Government in putting the ideas behind the Act into practice by granting loans, under the Act, to the extent of £10,000,000, during the next two years.

Loans up to 90 per cent. of the valuations of the houses, subject to Government and local authorities' guarantees, will be granted at 4 per cent. interest in the North and Midlands, and 4½ per cent. in London and the Southern Counties, on a 30 years' repayment period.

Definite proposals for the erection of houses under the scheme may now be submitted to the Society.

The provisions of the Act do not, admitted, coincide with the inherent principles of the building societies, which were founded to enable people with limited capital to buy their own houses ; but the societies have large surplus funds that are not likely to be absorbed immediately in financing houses built for sale and, since there is an urgent need for more houses to let to the poorer of the working classes and for cheap finance to enable them to be built by private enterprise, the societies who regard the scheme with favour will employ a part of their surplus in the provision of building finance at lower interest rates. But a distinct division will be made between the new proposals and normal business, and in order that there may be no unfair competition through speculators obtaining money from the same source at different rates of interest, cheap money will be available only for houses built to let ; the builder will not be permitted to sell a house financed under the new scheme to the individual for his own occupation.

The builder may retain the houses himself or sell them, and investors will deal with them on a rental basis. For several years there has been a steadily increasing demand for good-class property for investment, and since cheap money is now available, building cost considerably reduced, and municipal competition eliminated by the withdrawal of the subsidy, the position of the investor is, at the moment, decidedly favourable.

In order to obtain finance the potential borrower first lays his proposals before the building society, giving plans and layout scheme, and stating the number of houses he intends to erect. The directors of the society consider applications at an early stage, and no undue expense need be incurred.

If the scheme appears favourable it is forwarded to the society's surveyors, who make their report and valuation. If it is then approved, a provisional offer is made to the builder.

The scheme must next receive the approval of the local authority that will act as guarantor and, having the authority's consent, must go to the Ministry of Health. This is the final stage ; so soon as the scheme is sanctioned by the Ministry building work may go forward on a 90 per cent. loan basis on total valuation of house and land, these being regarded as an entity, with a 30-years' repayment period.

These articles were started, primarily because this JOURNAL anticipated a wave of speculation in small house building, following the withdrawal of the subsidy, and foresaw the deadly danger of allowing the speculative builder to produce, uncontrolled, the £250 to £300 house.

The danger has now been brought home to many people, including the Government, and the Minister of Health has himself moved in the matter.

Since the Halifax Building Society's scheme for a £10,000,000 loan for housing was made public, the Minister has issued to the local authorities and county councils of England and Wales a special Circular (No. 1334), Section 14 of which amounts, since the Government itself will act as a guarantor for money advanced under the provisions of the Act, to an order to local authorities to ensure that the houses provided are well laid out and of good design ; and attention is drawn to the duty which is laid on local authorities by section 38 of the Housing Act, 1930, to have regard to the beauty of the landscape and the other amenities of the locality.

There is an implication that houses must not only give proper accommodation, but must conform to an architectural standard of design, which is tantamount to a demand that qualified architects be employed. Failing the employment of architects, the Minister insists that proposed schemes be put before the architectural advisory panels set up by the C.P.R.E. with the help of the R.I.B.A. and its allied societies.

Here is a definite rule of procedure, the significance of which can hardly be exaggerated. Uncontrolled development has gone unchecked since the war ended, and feverish speculation in house building began. Houses were needed at any price, and amenities were forfeited. But the Minister of Health has now definitely laid on the local authorities the onus of responsibility for preserving an architectural standard in small house building, and further, he has indicated the means (architectural advisory panels) by which this proposal may be implemented. What is now essential, and what every responsible person should do, is to back up the lead given by the Minister. Kindly pressure brought to bear on the local authorities will stimulate them to exercise the powers granted to them under the Town Planning Acts.

NEW CHILDREN'S WARD BLOCK

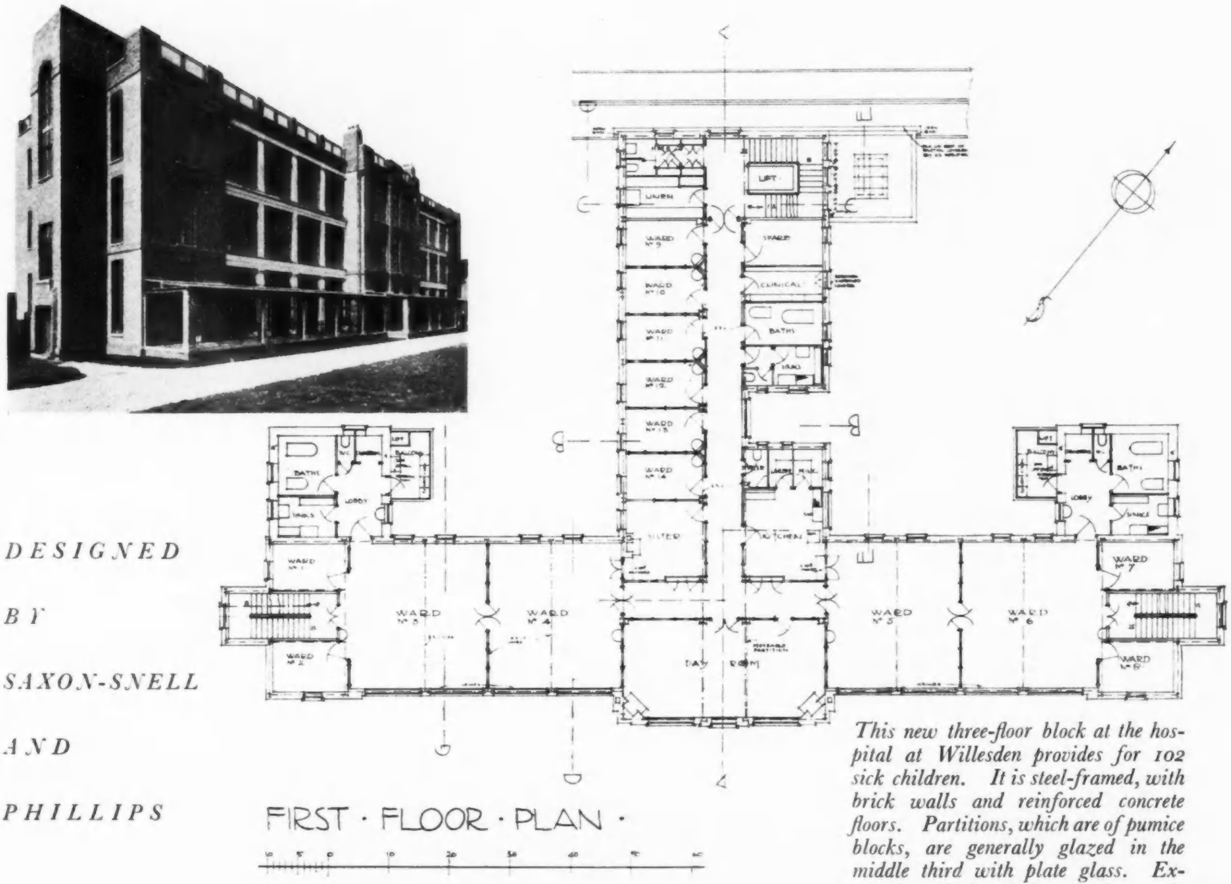
DESIGNED

BY

SAXON-SNELL

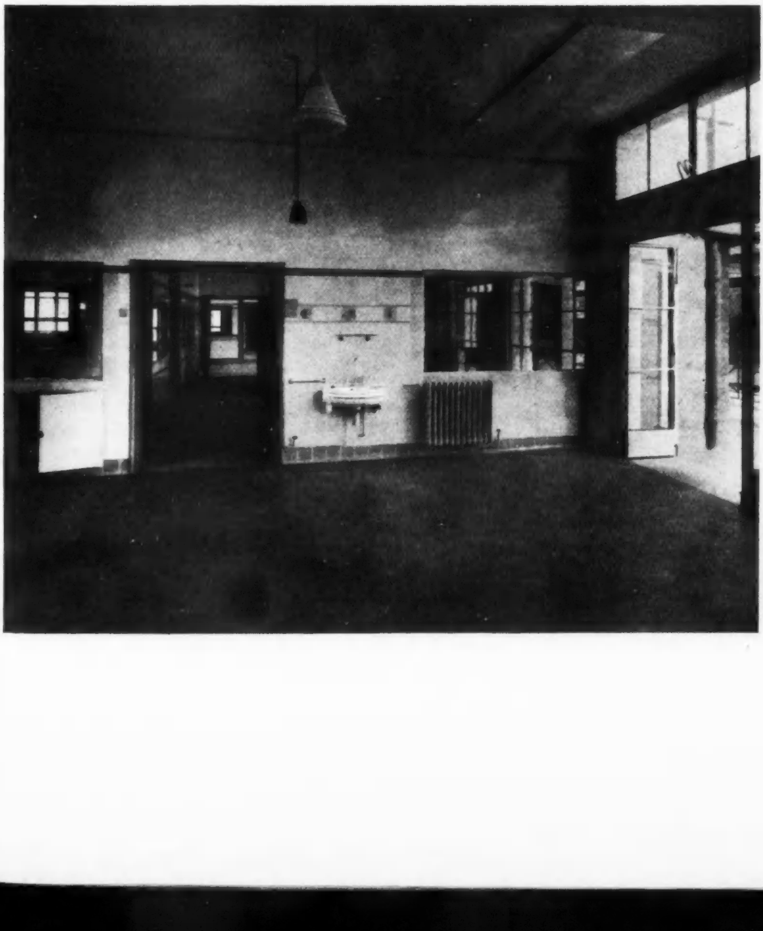
AND

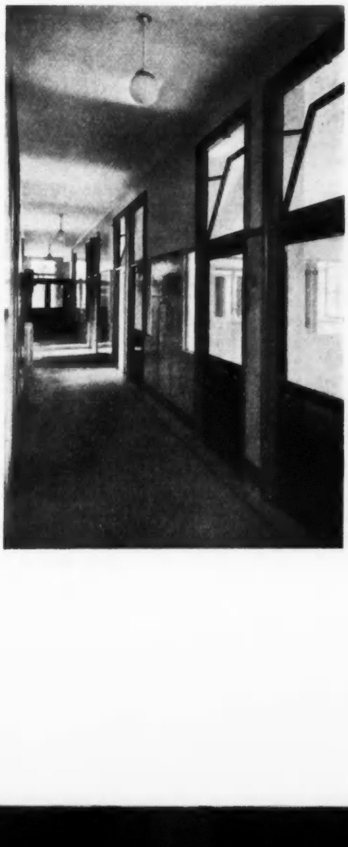
PHILLIPS

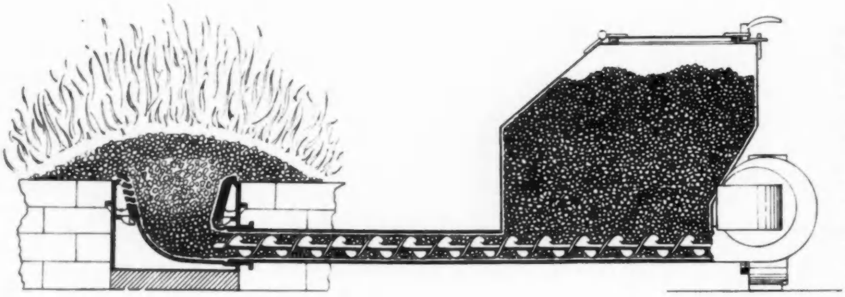


LIFT
LINEN
WARD No 9
WARD No 10
WARD No 11
WARD No 12
WARD No 13
WARD No 14
SISTER
CLINICAL
BATHS
KITCHEN
BATHS
LOBBY
WARD No 1
WARD No 2
WARD No 3
WARD No 4
WARD No 5
WARD No 6
WARD No 7
WARD No 8
DAY ROOM
MOVABLE PARTITION
FIRST · FLOOR · PLAN ·

This new three-floor block at the hospital at Willesden provides for 102 sick children. It is steel-framed, with brick walls and reinforced concrete floors. Partitions, which are of pumice blocks, are generally glazed in the middle third with plate glass. External southerly windows and veranda are glazed with Vita glass. On the left, below, is seen a typical glazed-tiled ward, with day room beyond; on the right, a corridor, with separation wards, leading to a day room.







TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Automatic Coal Stokers

SINCE the price of oil has increased by approximately £1 per ton, following a tax of one penny per gallon levied under the 1933 Budget, attention has turned again to bituminous coal as an economical fuel, and consequently to underfeed firing and automatic coal stokers.

◆

The underfeed firing system was first developed in this country a hundred years ago, but has only recently, through the perfection of thermostatic control and the increased reliability of small motors, been applied to boilers consuming 10 lb. to 400 lb. of coal per hour.

◆

By this system raw coal is forced upwards, and the fire burns constantly with a glowing surface. The maximum radiant heat is therefore transmitted to the boiler heating surface, and the formation of smoke is prevented because the volatile matter, distilled from the "green" coal, is burned in passing through the incandescent zone above.

◆

The diagrammatic section shows the essential features of a typical automatic underfeed stoker.

◆

The Prior Mastoker, an automatic stoker designed for use with boilers rated at 150,000 to 3,000,000 B.T.U.'s per hour, consists of a coal hopper of convenient size connected to a burner by a worm conveyor. Air, to aid combustion, is supplied by a fan, driven, with the conveyor, by a small electric motor of ¼ to 2 h.p., according to the size of the Mastoker.

◆

Paper and wood are laid in the usual way and fired. Fuel is fed by the worm conveyor from the hopper to the burner, and, becoming preheated, liberates combustible gases that pass through the fire bed and are consumed. All that remains in the fuel of heating value is the carbon matter, which is burned as it is forced upwards towards the glowing surface of the fire bed.

◆

The combustion should be smokeless, and the soot nuisance eliminated. The ash fuses into clinker, which is easily removed through the fire door, and amounts to only one-tenth of that normally produced by hand firing.

A No. 6 Mastoker automatic coal stoker installed at Salisbury Road School, Willesden.

Remote room control and thermostats prevent fuel waste, and a mercury pilot control automatically starts the motor for short periods at predetermined intervals in the event of the thermostat being held out of action for a prolonged period, owing to exceptionally warm weather or other cause. The makers state that the Mastoker shows an economy, after making allowance for current consumption by the motor, of 25 per cent. to 50 per cent. when compared with ordinary hand firing, and it is obvious that there is a considerable saving in labour.

◆

The prices of the Mastoker in its several sizes, complete with motor, kindling control, boiler thermostat and clinker tongs, are:—

Stoker.	B.T.U's Rating Hot Water Radiation.	Retail Price.
No. 1	200,000	£ 90 0 0
No. 1a	300,000	£105 0 0
No. 2	400,000	£120 0 0
No. 3	600,000	£150 0 0
No. 4	800,000	£160 0 0
No. 4a	970,000	£190 0 0
No. 5	1,200,000	£230 0 0
No. 6	2,000,000	£275 0 0
No. 7	2,500,000	£300 0 0

Lamp Spacing for even Diffusion

I read in the Electric Illumination Handbook No. 8* (Architectural Lighting) that in an investigation recently undertaken tests were made on acid-etched; flashed opal; flashed opal, acid-etched on clear glass surface; and stippolyte, acid-etched on the flat surface, in order to obtain empirical rules for the effective installation of electric lamps with diffusing glass, and to ascertain the maximum lamp spacing and the minimum distance of the source of light from the glass surface to provide approximately even illumination.

◆

It is impossible to obtain with acid-etched glass a degree of even brightness as high as that obtainable with other specimens.

◆

Preliminary tests indicated that similar results were obtained from lamps of 15 W to 100 W, and it was, therefore, concluded that lamp size was not an important factor governing spacing and position of lamps, and consequently that the results obtained from further investigation could be approximately applied independently of lamp wattage.

◆

Some variation was found between the results obtained with Pearl and Opal lamps, and the curves in the diagrams overleaf indicate this variation. The spacing of the lamps is indicated on these curves and represents the maximum permissible spacing with the particular glass at a given distance of the lamp from the glass itself.

◆

If, for instance, flashed opal glass and Pearl lamps are used, and the space available behind the glass permits the lamp to be installed at a maximum distance of only

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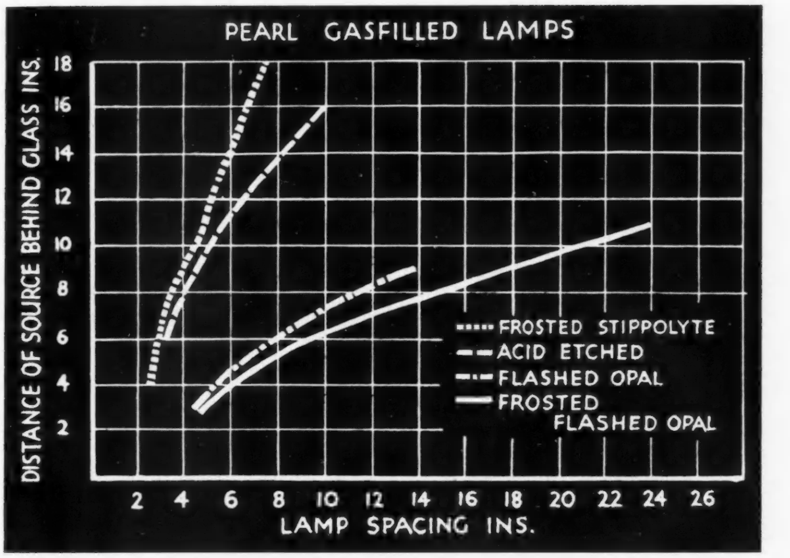
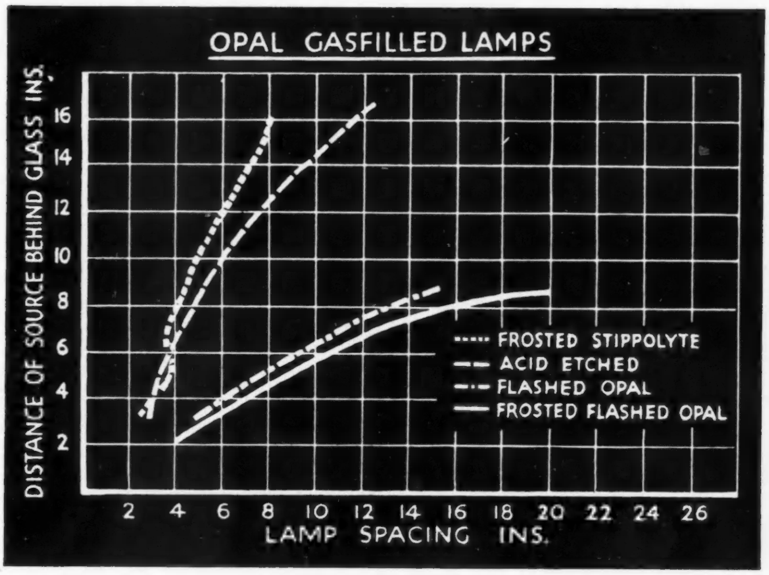
* Copies of this handbook are obtainable, free of charge, from The Electric Lamp Manufacturers' Association.





Above : Spacing curve for Pearl lamps. Below : Spacing curve for Opal lamps.

6 ins. behind the glass, then the lamps should not be spaced at a greater distance apart than 8½ ins.

•

If, on the other hand, the distance between the lamps and the glass is unreasonably great, the efficiency of the system is impaired. For example, in a test with opal glass, in a flush panel, the minimum distance from lamp centre to glass to avoid spottiness was found to be 7 ins. When this distance was increased to 10 ins., by way of experiment, the resultant reduction of luminous efficiency was found to be 5.7 per cent.

Literature Received

Marble, a handbook by Ian Cater.
Art Pavements and Decorations, Ltd.

SOCIETIES AND INSTITUTIONS

THE ARCHITECTURE CLUB

The twenty-second dinner of the Architecture Club was held at the Savoy Hotel on Wednesday of last week. Mr. R. Holland Martin, C.B., F.S.A., HON. A.R.I.B.A. (President) presided over about 140 members and guests. The topic of the evening was "The New Headquarters of London University."

After the Royal toasts had been proposed by the President, a set of lantern slides were shown of some incidents and events since the last dinner.

The first slide was of Messrs. J. C. Squire and Oswald P. Milne, the founders of the Club, "having a little talk in connection with the defence of Carlton House Terrace." The slides that followed showed Joseph Emberton and the Royal Corinthian Yacht Club, for which he was awarded the Essex, Cambs. and Herts. Architecture Medal; E. Berry Webber and the Southampton Municipal Buildings; C. H. James and the Norwich Municipal Buildings; Guy Wornum and the R.I.B.A. Building; Edward Maufe and Guildford Cathedral; W. Curtis Green, the new Royal Academician and A. J. Davis, who was recently elected an Associate of the R.A.; A. B. Knapp-Fisher, the new Professor of Architecture at the Royal College of Art, South Kensington; Sir John Burnet and Lloyds Bank, E.C., the London Street Architecture Medal Building for 1933; Sir Giles Gilbert Scott (nominated for the Presidency of the R.I.B.A.) and a view of the extrados of the great vault over the main crossing of Liverpool Cathedral; Sir Edwin Lutyens and the temporary high altar for the new R.C. Cathedral at Liverpool.

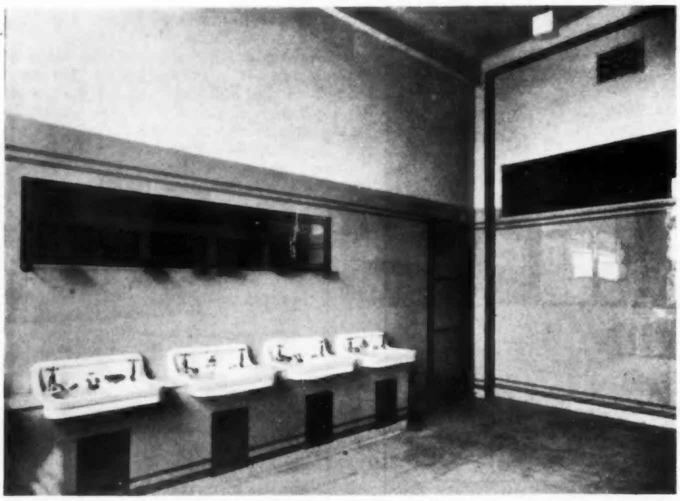
The Rt. Hon. Lord Macmillan, P.C., K.C., proposing the toast of "The New Headquarters of the University," described the building as a "university of a new era," which would stand on a magnificent site of 10½ acres of land in Bloomsbury, placed at their disposal through the munificence of the Rockefeller Trust and friends. London, he said, had now awakened to the desirability of having within its midst a home of learning worthy of itself and the University, and one which would win its repute throughout the world. The problem presented to the architect was to obtain such a group of buildings as would produce one general harmony of scheme with the diversity of interest served by each unit, and they were wisely guided when their choice fell on Mr. Holden. He first met him at the dinner at which Mr. Holden was presented with the Architecture Medal for the Underground Building, and immediately realized that he was a man of vision; a man who would not be—as he was told some architects were—a dictator. When he first saw the design it seemed to convey an impression of power like that of a battleship, which was exactly the view expressed by His Majesty.

Lord Macmillan stated that Mr. Holden had arranged to preserve as many open spaces as when the trustees entered upon the site, and, for once in the history of London, a great building had been launched without questions either in the Press or Parliament. Most of our present-day buildings had been born in sin and conceived in iniquity. Mr. Holden's design had been shown to all the commissions and institutions, etc., and all had expressed approval.

At this stage Mr. Holden described, with the aid of lantern slides, the planning of the building.

Professor L. N. G. Filon, M.A. (Vice-Chancellor of the University) congratulated Mr. Holden on the way he had arrived at a solution of a difficult problem, and expressed the hope that the new building would be the intellectual centre of London. The University had not altogether neglected architecture and building in the past, as they had the Bartlett School of Architecture, under the leadership of Professor A. E. Richardson.

Mr. Edwin Deller, LL.D. (Principal of the University), said he had seen new buildings —not skyscrapers—in the U.S.A. which he



The directors' lavatory in the Co-operative Wholesale Society's London Branch, Leman Street, E.C. Vitrolite, a strong opaque glass with a hard and brilliant fire-polished surface, was used for the walls. See note on this page.

disliked, such as Collegiate Gothic. He particularly disliked all shams in architecture. Mr. Holden had relied upon mass and proportion and avoidance of decoration that decorated nothing. Art, like architecture, was long, and life was short. The new University building was as notable a contribution to London as St. Paul's. It was up to them to see that it was brought to fruition.

Messrs. J. C. Squire, A. B. Knapp-Fisher and H. L. Eason also spoke. Mr. Knapp-Fisher said that the new building would rank among the best of the century.

SCOTTISH ARCHITECTURAL PRIZES

The jury of assessors, consisting of Messrs. James A. Arnott, A. G. Henderson, John Stewart, A. F. Balfour Paul, and A. H. L. Mackinnon, have issued their award of the prizes annually given by the Royal Incorporation of Architects in Scotland. There were 81 competitors for session 1932-1933, the prizewinners being as follows :—

David G. MacConville, Glasgow School of Art, who gained the Rowand Anderson Studentship (silver medal and £100) for the best design for a "pavilion or palace of arts for the British Empire at a foreign centenary exhibition." Second place (certificate and £20) : James A. Carrick, Glasgow School of Art. P. H. D. Ronaldson, Edinburgh College of Art, who gained "honourable mention."

Philip M'Manus, Edinburgh College of Art, who gained the Rutland Prize (certificate and £50) for the best selection of practical working drawings for a "riverside restaurant with a sun roof." Hon. mention : Wm. G. Dey, Edinburgh College of Art.

William Archibald Jack, Glasgow School of Art, who gained the Incorporation Prize (£15) available to third-year students producing the best design for an "open-air theatre in a garden of a great musician." Second prize (£5) : T. Warnett Kennedy, Glasgow School of Art. Miss Mary Drysdale, Edinburgh College of Art, received "honourable mention" with a special prize of £2.

N. R. J. Johnston, Glasgow School of Art, who gained first prize (£15) in the *Quarterly* essay competition.

The Maintenance Scholarship, £50 per annum for two to three years, was awarded to an Edinburgh student.

Trade Item

Vitrolite is a strong opaque glass with a hard and brilliant fire polished surface. This material was used for the walls of the directors' lavatory at the Co-operative Society's Building, illustrated above. It is claimed to be hygienic, non-absorbent and unstainable and to retain its lustre indefinitely ; and cannot warp, swell or pull apart and will never become marred by surface cracks or crazing. Vitrolite is supplied in white, black and a variety of other colours. It can be fixed to a Portland cement screeding or to a hard plaster wall, this being done by the application of a special Gripon Mastic in blobs about 2 ins. in diameter placed approximately 6 ins. apart on the back of the panels.

Vitrolite can be drilled for screwing to woodwork and shaped to meet nearly every requirement : and is obtainable in ashlar sizes, namely, 15 ins. by 10 ins., 18 ins. by 12 ins., 15 ins. by 15 ins., and 21 ins. by 14 ins., but larger panels can be supplied if required.

Vitrolite, manufactured by the British Vitrolite Co., Ltd., of 7, Albemarle Street, W.1, is a British product and is said to be suitable for installing in bathrooms, kitchens, dairies, cafés, hairdressing saloons, operating theatres, shops, lavatories and for counter and table tops, and is obtainable through all glass dealers.

Obituary

We regret to record the death of Mr. R. J. Hatton, M.I.MECH.E., M.I.E.E., a director of Messrs. W. T. Henley's Telegraph Works Co., Ltd., which took place on May 17.

Mr. Hatton, who was born in 1854, served the company for over fifty years. He was appointed manager of the North Woolwich Works on January 1, 1884, and retained that position until January, 1920, when he was appointed Consulting Engineer to the company, in which capacity he was acting until the time of his death. Mr. Hatton was appointed a director of the company in 1912.

*

We regret to record the death of Mr. Thomas Sanderson, aged eighty-eight years, who was associated with Messrs. Sidney Flavel & Co., Ltd., for a period of sixty-five years, and was active up to three days before his death, which was caused through a fractured thigh.

Over this long period of activity he was, in turn, works clerk, traveller, general manager, secretary and director, during four generations of the Flavel family.

THE BUILDINGS ILLUSTRATED

Following are the names of the general contractors and some of the sub-contractors for the buildings illustrated in this issue :

New Chapel, Farnborough Hill Convent, Farnborough (pages 725–728 and Supplement). General contractors, Mussellwhite and Son, who were also responsible for the joinery and plasterwork. Sub-contractors : James Slater & Co. (Engineers), Ltd., hot water heating ; G. N. Haden and Sons, Ltd., Oil-o-Matic installation and electric lighting ; James Gibbons, Ltd., casements, glazing and door furniture ; James Longley & Co., Ltd., oak flooring ; Whitehead and Sons, Ltd., marble work ; Ames and Finnis, Ltd., bricks and tiling ; The Trussed Concrete Steel Co., Ltd., Reinforced Concrete Engineers, reinforced concrete ; Excel Asphalte Co., asphalt ; J. W. Gray and Sons, Ltd., lightning conductors.

The Friends Provident Building, Bristol (page 729). General contractors, Wm. Cowlin & Son, Ltd. Sub-contractors : Archibald Dawnay and Sons, Ltd., steelwork ; James Gibbons, Ltd., windows (front elevation) ; Williams, Gamon & Co., other windows ; Fenning & Co., Ltd., entrance hall and marble ; Martin Van Straaten & Co., tiling work ; Siegwart Fireproof Floor Co., fireproof flooring ; Musgrave and Sons, heating and domestic supply ; Express Lift Co., Ltd., lift ; Colston Electrical Co., Ltd., electrical work ; India Rubber Gutta Percha Co., rubber flooring ; George Wright, Ltd., sanitary fittings ; Birmabright was used for the windows, doors, cast grilles, and balustrading.

Central Middlesex County Hospital, Children's Block (pages 730–731). General contractors, Wm. Moss and Sons. Sub-contractors : Young & Co. steelwork ; Concrete, Ltd., reinforced concrete floors ; Bradford & Co., reinforced concrete staircases ; Rheocrete, Ltd., pumice blocks ; Salter Edwards & Co., asphalt ; Crittall Mfg. Co., Ltd., windows, etc. ; Stevens and Adams, wood block flooring ; W. B. Simpson and Son, tiling and terrazzo ; J. Bolding, Ltd., sanitary fittings ; Bennet Furnishing Co., flush doors ; James Gibbons, Ltd., special medicine cupboards and ironmongery ; Roanoid, Ltd., door furniture and name plates ; Silverdale, Ltd., Harding and Botten, Manlove Alliott & Co., sterilizing apparatus ; William Freer and Sons, heating and hot water installations ; W. J. Furse & Co., Ltd., electrical installations ; Wm. Wadsworth, Ltd., bed lift.

We regret that we inadvertently omitted the name of Messrs. Gent & Co., Ltd., from the list of contractors for the Co-operative Wholesale Society's London Branch, illustrated in our last issue. Messrs. Gent supplied the electric clocks.

Changes of Address

Messrs. John Keppie and Henderson, FF.R.I.B.A., have removed their offices to 181, West Regent Street, Glasgow, W.2. Telephone No. : Douglas 3576.

Mr. William Walter Wood, F.R.I.B.A., M.I.STRUCT.E., is continuing his practice from his London address, 257-259 Oxford Street, Oxford Circus, W.1, and in conjunction with Messrs. Lemon & Blizard, Civil Engineers and Surveyors, at 24 Lockyer Street, Plymouth. Telephones : Mayfair 3272 and Plymouth 1361.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The BATTERSEA B.C. is to erect a block of flats at the corner of Hope Street and York Road, at a cost of £8,709.

The L.C.C. has prepared plans for extensions at the EWELL mental hospital, at a cost of £181,000.

The L.C.C. is to modernize the LAMBETH infirmary, at a cost of £5,697.

The L.C.C. housing estimates for the year total £1,342,000. Thirteen slum areas are to be dealt with.

Plans passed by the LEWISHAM B.C.: 144 houses, Marvels Lane, for Mr. G. L. Russell; six houses, Upwood Road, for Messrs. Thos. Allen (Lee), Ltd.: houses, Westwood Park estate, for Mr. Hugh Macintosh: houses, Woodcombe Crescent, for Mr. A. Cole: buildings, Perry Hill, Catford, for Mr. S. F. Prior.

The L.C.C. is to develop a further section of the St. Helier estate, MORDEN, by the erection of some 2,000 houses at a cost of £812,000.

The Water Board is to construct, at NEW RIVER HEAD, an additional testing shop, cottages, and contingent works at a cost of £56,000; provide fittings and equipment for the proposed new shop, at £5,000; and carry out alterations to existing mains at a cost of £2,000.

The ST. PANCRAS B.C. is to borrow £53,000, for the purchase of a site in Euston Road, for the erection of a new Town Hall.

The L.C.C. is to undertake the clearance and reconstruction of the Drysdale Street area of SHOREDITCH, at a cost of £104,000.

The L.C.C. is to erect a block of tenements in Hard Street, SOUTHWARK, at a cost of £11,500.

Plans passed by the TOTTENHAM U.D.C.: Reconditioning, St. John's Works, St. John's Road, for Mr. S. I. Freeder: factory extension, Northumberland Park, for Messrs. Bryant, Symons and Co.: 16 houses, Hillside Road, for Messrs. A. and S. Faux: factory extension, Fawley Road, for Albion Sewing Cotton Co., Ltd.; alterations, 581-3 Green Lanes, for Messrs. Izzards, Ltd.; mortuary, Prince of Wales Hospital, Tynemouth Road, for Governors; four shops, Isley Avenue, for Mr. J. Shepherd.

Plans passed by the WESTMINSTER City Council: Rebuilding 8 Brick Street, for Messrs. W. H. Binns and E. K. Rowe: frontage lines, 14-9 Upper St. Martins Lane, and 139-142 Long Lane, for Mr. S. A. Heaps: canopies and balconies, Fountain Court, Buckingham Palace Road, for Messrs. L. Solomon and Son: buildings, Rutland Gate, for Messrs. T. P. Bennett and Son.

SOUTHERN COUNTIES

Plans passed at BEXHILL: Two houses, Arthur Road, and 22 houses, Crowmere Avenue, for Mr. J. E. Maynard; addition to P. E. Schools, Magdalen Road, for Father Hobson; additions, Normanhurst Hotel, for Mr. E. Bunce; two houses, Cooden Drive, for Messrs. E. Godwin and Sons: four houses, Collington Lane and St. John's Road, for Mr. R. W. Moore.

Plans passed by the BOURNEMOUTH Corporation: Two bungalows, Harting Road, for Messrs. Short and Waugh; two houses, Watcombe Road, for Mr. E. P. Pegg: four shops, Christchurch Road, for Messrs. Harrocks, Ltd.; four houses, Stourvale Road, for Mr. Parry: two houses, Haverstock Road, for Messrs. Troke and Groves; two houses, Carbery Avenue, for Messrs. K. and H. Stacey: two houses, Carlton Road, for Mr. A. Richards; mission hall and house, East Howe Lane, for Mr. G. E. Cotton: two flats, Spurgeon Road, for Mr. C. W. Hinchcliffe; bank, Christchurch Road, Boscombe, for the National Provincial Bank, Ltd.: four flats, Pavilion Road, for Mr. F. F. Tarrant: two houses, Markham Road, for Mr. H. M. Efford; two houses, Meon Road, for Mr. E. J. Mayne; conversion into flats, 14 King's Park Road, for Mr. C. H. White: alterations and additions, Imperial Hotel, Meyrick Road, for Grand and Imperial Hotel Co., Ltd.; alterations, Royal Exeter Hotel, Exeter Road, for Mr. W. A. Cox; additions, Prince of Wales Hotel, Commercial Road, for Messrs. Eldridge, Pope & Co.

Plans passed by the HERNE BAY U.D.C.: Two bungalows, Sea Street, for Messrs. Goodwin and Russell, Ltd.; two flats over garage, Station Road, for Mr. J. Wilson; two houses, Ridgeway Cliff, for Mr. F. J. Line; alterations and additions to shops, 161 and 163 Mortimer Street, for Mr. R. Messenger; two villas, Mickleburgh Avenue, for Herne Bay Estates, Ltd.; 12 houses, Gordon Road, for Messrs. Wilbee and Son.

Plans passed by the LITTLEHAMPTON U.D.C.: Additions, 6 Selborne Place, for Mr. J. P. Dixon; two houses, Kent Road, for Mr. H. J. Jenkins; two bungalows, Hendon Avenue, for Rev. R. C. Jones: lay-out, Rustington House Estate, for Mr. C. Swain; alterations and additions, cottages at Court Wick, for Messrs. J. Vinnicombe and Son; additions, rear, Arcade Lounge, for Mr. E. W. Abbott; six cottages, Wick, for Mr. F. Phipps.

The Kent and East Sussex County Councils are in negotiation with the Catchment Board regarding a scheme for sea defences at RYE Harbour and Fairlight Cliffs, at an estimated cost of £150,000.

The Hampshire C.C. is to carry out alterations at SOUTH HAYLING Council School, at a cost not exceeding £6,500.

The Hampshire C.C. has approved the proposal for the extension of TATCHBURY Mount Colony by the provision of two villas, each providing accommodation for 60 mental defectives, at an estimated cost of £20,000.

The Kent C.C. is to proceed with the construction of the WHITSTABLE-HERNE BAY section of the new coastal road, at a cost of £193,800.

EASTERN COUNTIES

Plans passed by the LOWESTOFT Corporation: Two houses, Laurel Road, for Mr. F. W. King; two houses, St. Margarets Road, for Mr. R. Lowe; two houses, Yarmouth Road, for Mr. C. S. King; two s.d. houses, Corton Road, for Messrs. Gilliatt and Phillips; houses at Chestnut Avenue, for Mr. E. D. Clarke; houses, St. Margarets Road, for Mr. H. Willgross; six houses, St. Leonards Road, for Mr. R. Sewell.

SOUTH-WESTERN COUNTIES

Plans passed at DORCHESTER: Alterations, Half Moon Inn, North Square, for Messrs. J. A. Devenish & Co., Ltd.; additions, Union Arms, Holloway Road, for Messrs. Eldridge, Pope & Co., Ltd.; alterations, The Bull's Head, Fordington Hill, for Messrs. Hall and Woodhouse; shops, South Street, and public-house, Trinity Street, for Messrs. John Groves and Sons, Ltd.; alterations to factory, Wareham Road, for the Weymouth and District Co-operative Society, Ltd.; two houses, Bridport Road, for Messrs. Moore and Samways.

MIDLAND COUNTIES

Plans passed at BEDFORD: Two houses, Park Avenue, for Messrs. E. H. C. Inskip and Son; extension of showroom, St. Peter's Street, for Messrs. David Robinson, Ltd.; two houses, Rosamond Road, for Messrs. E. H. C. Inskip and Son; four houses, Raleigh Street, for Mr. G. J. Tucker; house and shop, London Road, for Messrs. W. B. Stonebridge and H. A. Harris.

Plans passed at CHESTERFIELD: Rebuilding, 27 and 29 Holywell Street, for Messrs. J. Watts and Sons; two houses, Newbridge Lane, for Messrs. Wright Bros.; four houses, Derby Road, for Mr. J. Jones; two houses, Newbridge Lane, for Messrs. Wright Bros.; extension to premises, 80, Tapton View Road, for Mrs. King; two houses, Walgrove Road, for Messrs. Fairburn and Wale; alterations to premises, Newbold Drive, for Mr. T. Robson.

Plans passed at ILKESTON: Four houses, Nelson Street, for Messrs. J. W. Stapleton and Sons, Ltd.; five houses, off Park Road, for Mr. A. Beards; two houses, Little Hallam Hill, for Mr. A. Wheatley; two houses, Queen's Avenue, for Mr. D. Bladen.

Plans passed by the KETTERING U.D.C.: Six houses, Boddington Road, for Mr. W. Sumpter; three shops and flats, Gold Street, for the Midland Shop Properties, Ltd.; alterations and additions to hall, York Road, for the Kettering Masonic and Drill Hall Co., Ltd.; warehouse, Rockingham Road, for Mr. F. W. Allen.

Plans passed by the KIDDERMINSTER Corporation: Four houses, Larches Road, for Messrs. H. and H. Bridges; two houses, Heath House estate, for Mr. S. J. Brookes; new roads, Hurcott Road estate, for Kidderminster Freehold Estates, Ltd.; 14 houses, Hurcott Road estate, for Mr. W. Lindley; two houses, St. John's Avenue, for Mr. C. Hambledon; four houses, St. John's Avenue, for Mr. A. V. Bent; alterations, premises corner High Street and Worcester Street, for Mr. H. J. Stringer; two houses, Chester Road, for Messrs. Cartwright and Hanglin; eight houses, Beauchamp Avenue, for Mr. E. W. Perks.

The SEDGLEY U.D.C. has prepared a scheme for extensions at the Upper Gornal housing estate, at a cost of £5,540.

Plans passed by the SEDGLEY U.D.C.: Four houses, Vale Street, for Mr. T. Worton; two houses, Robert Street, for Mr. N. Dunn; 10 houses, Bull Street, for Mr. J. J. Marsh; two houses, Ward Road, for Mr. L. C. Sutton; two houses, Dudley Road, for Mr. A. Tomlinson.

The Warwickshire Education Committee has purchased a site at Shirley, SOLIHULL, for the erection of a junior school for 400.

The WORCESTERSHIRE C.C. is to erect police houses in various localities at a cost of £13,000.

NORTHERN COUNTIES

The BLACKPOOL Corporation has agreed to advance £60,000 to the Victoria Hospital Board for the erection of a new hospital at Whinney Heys.

Plans passed by the SOUTH SHIELDS Corporation: 18 houses, Wyngarth estate, Harton, for Messrs. T. A. Page and Son; alterations, Golden Lion Hotel, King Street, for Messrs. A. Deuchar, Ltd.; 32 houses, Coleridge Avenue, for Mr. M. Swales; 10 houses, Forster Avenue, for Mr. F. W. Newby; 11 houses, Barehirst Road, for Mr. Robert Macgowan Chapman; 18 houses, Warwick Road, for Mr. J. R. Henderson; two bungalows, West Avenue, for Messrs. J. H. Morton and Son; 32 bungalows, Tynedale Road, for Messrs. W. J. Robinson and Sons.

The TYNEMOUTH Corporation is to demolish the Duke Street, Collinwood and Bell Street clearance areas, at a cost of £6,490.

Plans passed by the TYNEMOUTH Corporation: Conversion of Beverley Hotel, Mast Lane, to eight flats, for Mr. S. Phillips; 10 houses, Spring Gardens estate, for Mr. W. Stockdale; two houses, Hawkeys Lane, for Messrs. J. W. and D. Brannen; two houses, Elsdon Terrace, for Messrs. Marshall and Tweedy; pavilion, Long Sands, for Messrs. Brown and Merrow; four houses, Mast Lane estate, for Mr. J. R. Wallace; eight houses, Mast Lane estate, for Mr. Mastalgio; five houses, Morpeth Terrace, for Messrs. Hays and Gray; congregational church extensions, Stephenson Street, for Mr. F. A. Child; two houses, Percy Park, for Messrs. H. D. Burton, Ltd.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen ; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist. ..	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

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* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		7	6
Building Sand	,,		7	9
Washed Sand	,,		8	9
2" Broken Brick	,,		8	3
¾" ,, ,,	,,		11	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	d.	6" s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	8	8	0
Luton Facings	,,	8	0	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	24	10	0
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES.	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	d.	4" s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	6
,, drawn pipes	,,		17	6
,, soil pipe	,,	1	0	6
,, scrap	,,		15	0
Solder, plumbers'	lb.			10
,, fine do.	,,		1	0
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2⅞
,, ,, 26 oz. ,, ,, ,,	,,					3¾
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3¼
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	2
Boiled oil	,,		2	8
Turpentine	,,		4	7
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		2	9
„ to reduce levels n/e 5' 0" deep and cart away		Y.C.		8	6
„ to form basement n/e 5' 0" deep and cart away		„		9	0
„ „ 10' 0" deep and cart away		„		9	6
„ „ 15' 0" deep and cart away		„		10	0
If in stiff clay	add	„		2	6
If in underpinning	„	„		4	0
Digging, return, fill and ram	„	„		4	0
Planking and strutting to sides of excavation		F.S.		1	0
„ „ to pier holes		„			5
„ „ to trenches		„			5
„ „ extra, only if left in		„			3
Hardcore, filled in and rammed		Y.C.		10	0
Portland cement concrete in foundations (6-1)		„	1	6	0
„ „ „ (4-2-1)		„	1	12	6
„ „ „ underpinning		„	1	16	0
Finishing surface of concrete, spade face		Y.S.			7

DRAINLAYER

		4"		6"	
		s.	d.	s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions		3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	28	10	0
„ „ in cement	„	29	15	0
„ Stocks in cement	„	35	15	0
„ Blues in cement	„	52	0	0
Extra only for circular on plan	„	2	0	0
„ backing to masonry	„	1	10	0
„ raising on old walls	„	2	0	0
„ underpinning	„	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	„			5½
„ „ „ red brick facings and pointing	„			11
„ „ „ blue brick facings and pointing	„		1	4
„ „ „ glazed brick facings and pointing	„		3	6
Tuck pointing	„			7
Weather pointing in cement	„			3½
Slate dampcourse	„			10
Vertical dampcourse	„		1	1

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	„		13	6
Artificial stone and do.	„		13	0
York stone templates, fixed complete	„		10	6
„ thresholds	„		13	6
„ sills	„	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	„		4	6
„ „ roofs	„		6	6
„ „ trusses	„		7	6
„ „ partitions	„		8	6
⅞" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" „ „ „ „	„	1	17	6
1¼" „ „ „ „	„	2	3	0
¾" × 2" fir battening for Countess slating	„		9	6
Do. for 4" gauge tiling	„		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
„ „ „ 2 „	„		2	9
„ „ „ 3 „	„		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1¼" „ „ „ „ „	„		1	6
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	„	2	12	6
1½" do.	„	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.	„		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" „ „	„	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	3	9
2" „ „	„	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" „ „ „	„	2	8
1½" „ but moulded both sides	„	2	4
2" „ „ „	„	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" „ „	„	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	2	6
1½" deal moulded wall strings	„	2	1
1½" „ outer strings	„	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" „ „	„	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	„	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	„		19	6
Do. stanchions with riveted caps and bases and do.	„		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d.
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	15	0
Do. in flashings	„	1	17	6
Do. in covering to turrets, etc.	„	2	4	6
Do. in soakers	„	1	10	6
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½"	¾"	1"	1¼"	2"	4"
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 0	1 2	1 5	2 1	3 0	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 3
Do. to stop ends	„	6½	8	9	11	1 3	—
Boiler screws and unions	„	3 3	3 9	5 0	8 0	—	—
Lead traps	„	—	—	—	6 3	8 9	—
Screw down bib valves	„	6 9	9 6	11 0	—	—	—
Do. stop cocks	„	9 0	11 0	14 6	20 6	47 0	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	„	5	0

PLASTERER AND TILING

		£		d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	„		3	6
Lathing with sawn laths to ceilings	„		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		1	9
Do. vertical	„		2	3
Rough render on walls	„		1	4
Render, float and set in lime and hair	„		2	0
Render and set in Sirapite	„		2	2
Render, backing in cement and sand, and set in Keene's cement	„		3	1
Extra, only if on lathing	„			4
Keene's cement, angle and arris	F.R.			6
Arris	„			2
Rounded angle, small	„			3
Plain cornices in plaster, including dubbing out, per 1" girth	„			1½
1" granolithic pavings	Y.S.		3	6
1½" „	„		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	„		17	6
9" × 3" „ „ „ „	„	1	2	6
Extra, only for small quadrant angle	F.R.			8

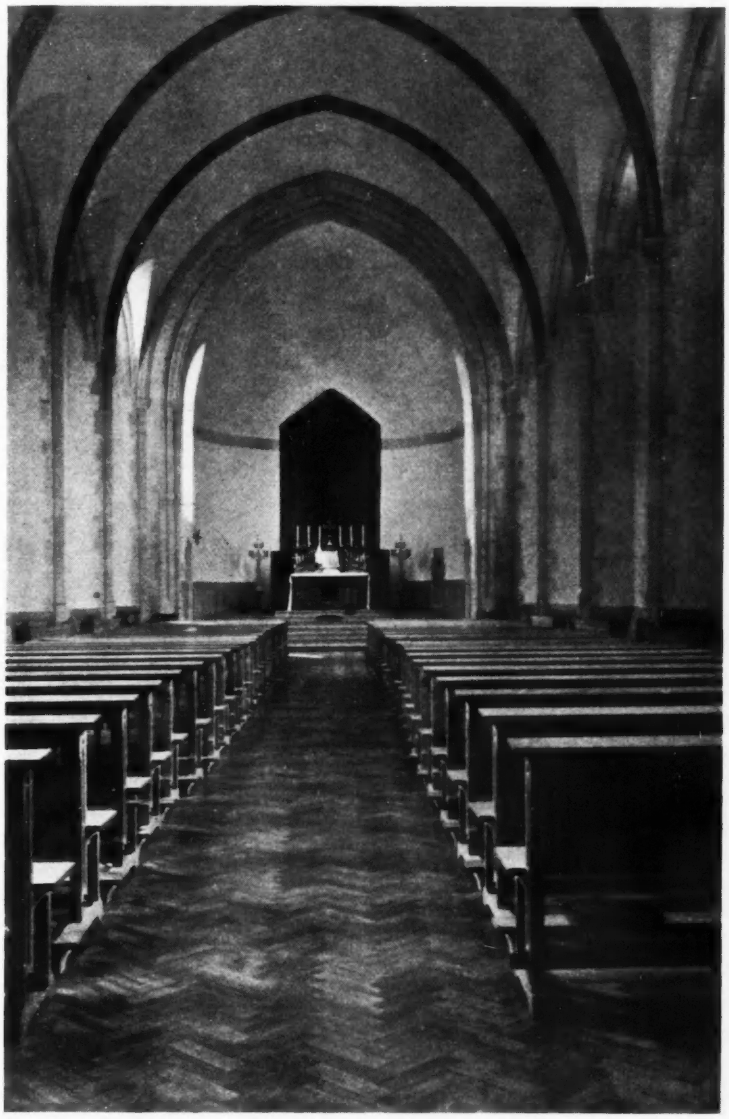
GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

PAINTER

			s.	d.
Clearcolle and whiten ceilings		Y.S.		6½
Do. and distemper walls		„		9
Do. with washable distemper		„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces		„	3	3
Do. on woodwork		„	3	6
Do. on steelwork		„	3	0
Do. and brush grain and twice varnish		„	5	6
Stain and twice varnish woodwork		„	1	11
Stain and wax-polish woodwork		„	4	6
French polishing		F.S.	1	2
Stripping off old paper		Piece	2	0
Hanging ordinary paper	from	„	2	9

NEW CHAPEL,
FARNBOROUGH HILL CONVENT
DESIGNED BY A. GILBERT SCOTT



THE NAVE, LOOKING TOWARDS THE ALTAR

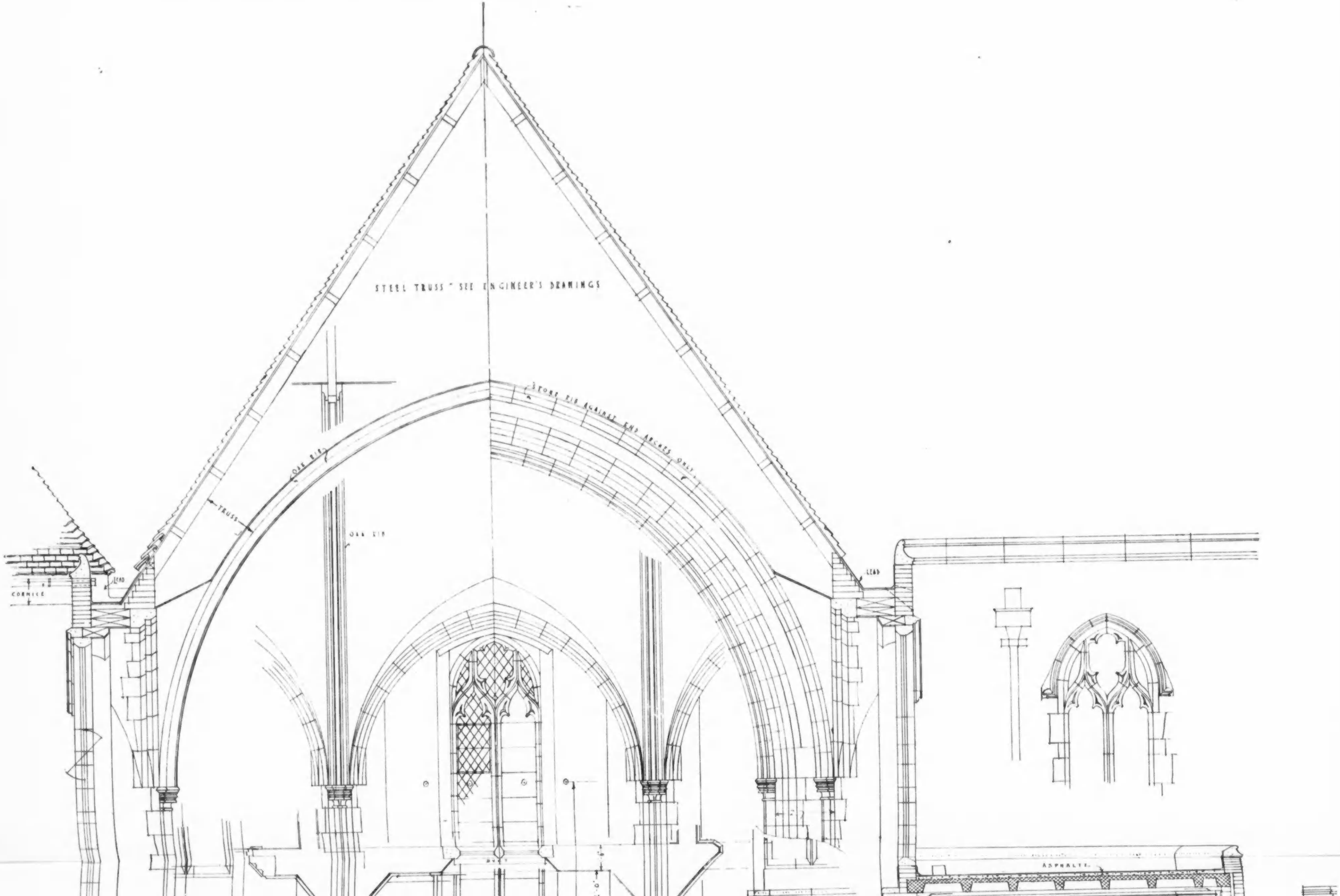
THE plans and sections of this building appear, along with other views, in the body of this issue; advantage is taken of the large spread of paper overleaf to reproduce a large-scale section through the nave, looking in the direction illustrated above, together with an elevation of a typical bay.

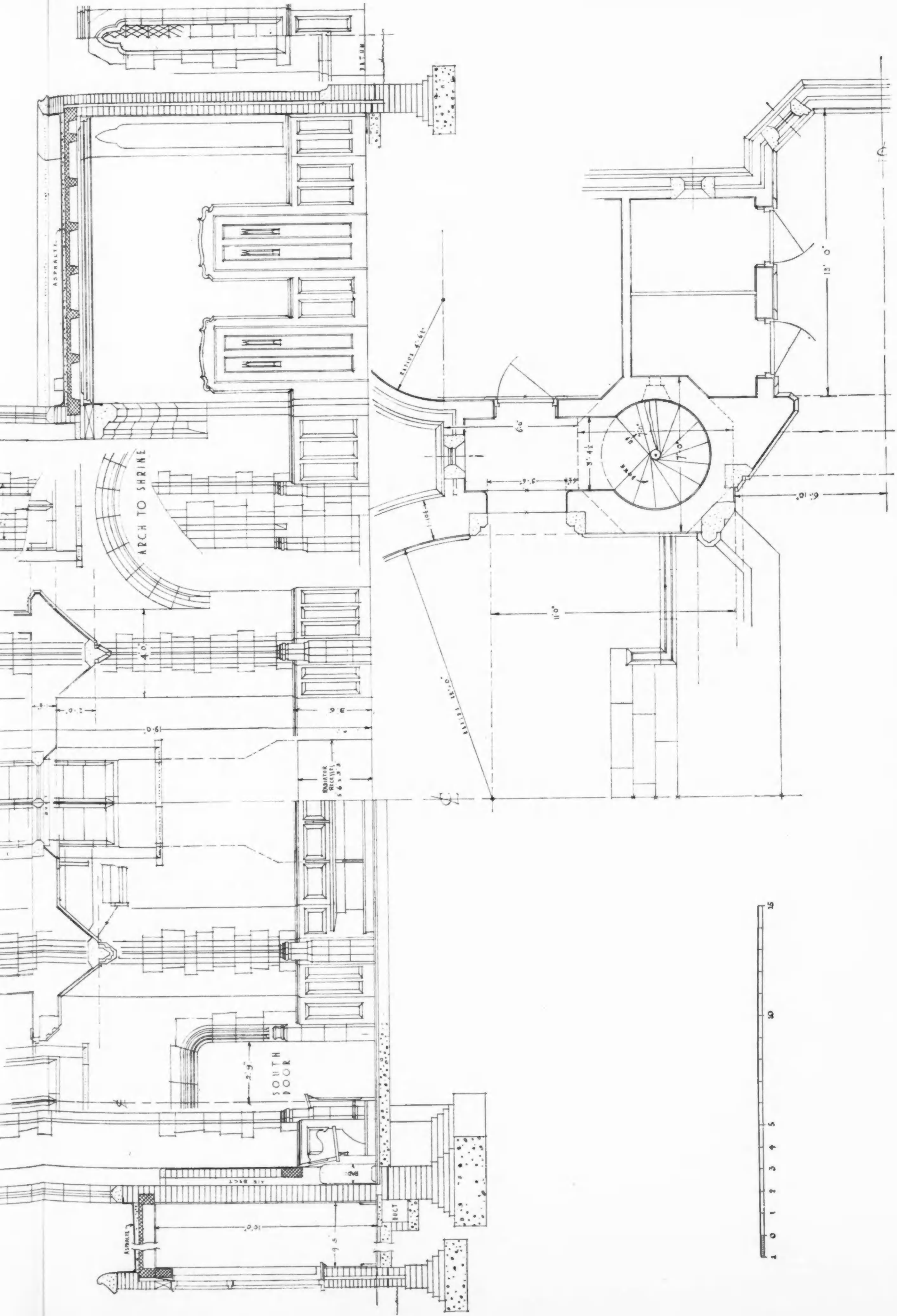
The other drawing, appearing on the last page of this Supplement, is a section through the sanctuary and adjoining lobby.

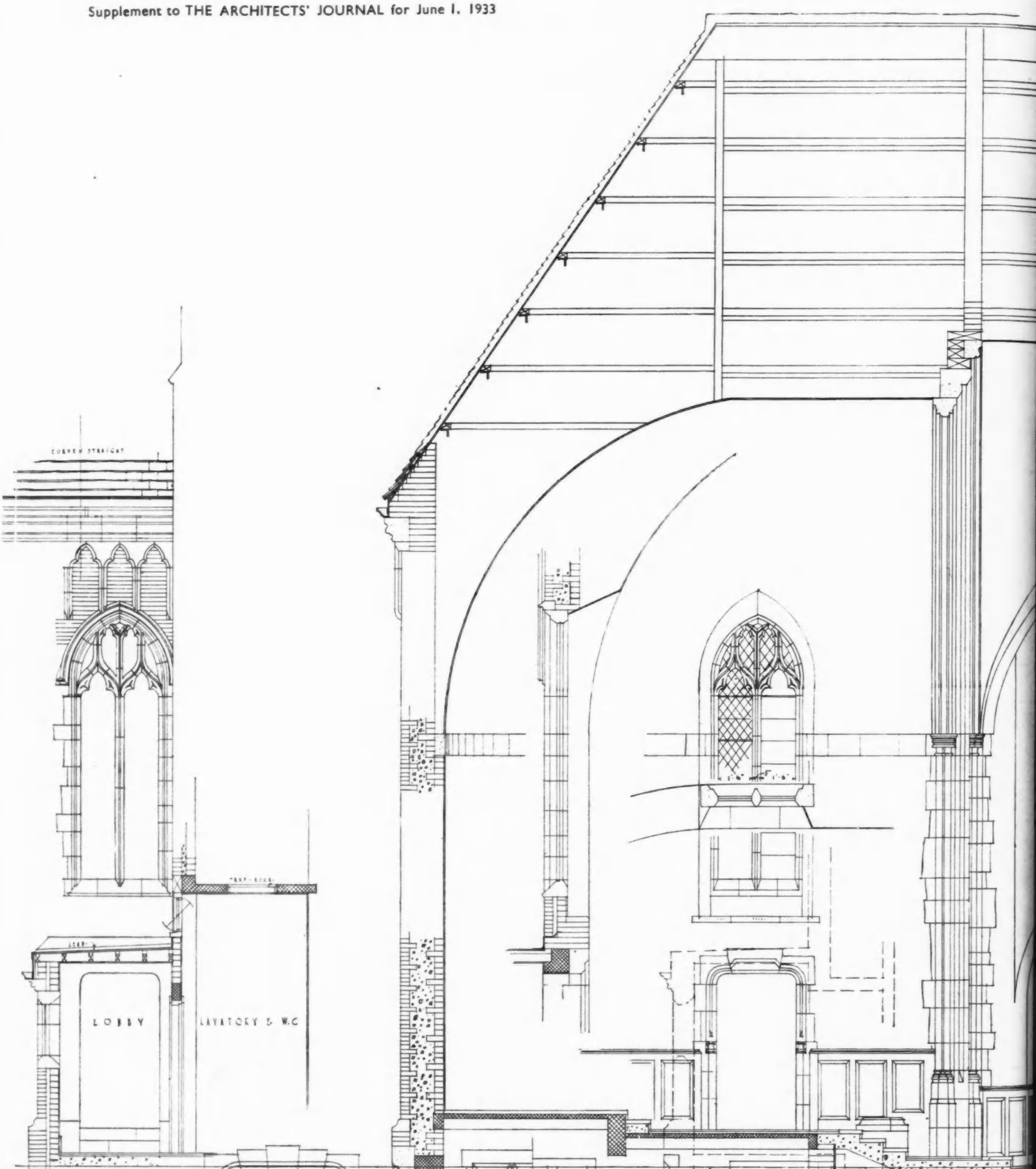
The present altar and reredos are temporary and are shortly to be replaced by permanent fittings, in keeping with the main design. A somewhat novel feature is a continuous row of stalls against the side walls, which converts the whole chapel into one large choir for the community.

The interior is finished in rough cream plaster, with Weldon stone dressings. The benches and joinery are of limed oak.

Supplement to THE ARCHITECTS' JOURNAL for June 1, 1933

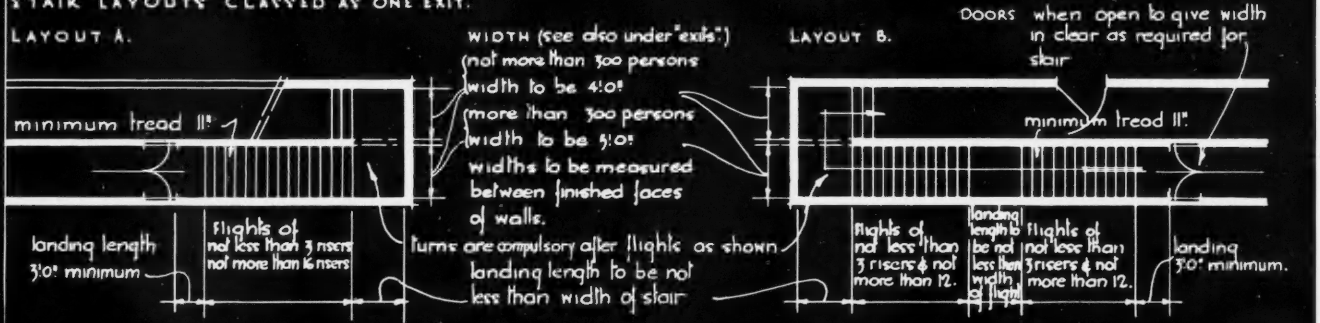

STEEL TRUSS – SEE ENGINEER'S DRAWINGS
STONE RIB AGAINST END ARCHES ONLY
OAK RIB
TRUSS
OAK RIB
LEAD
CORNICE
LEAD
ASPHALTE

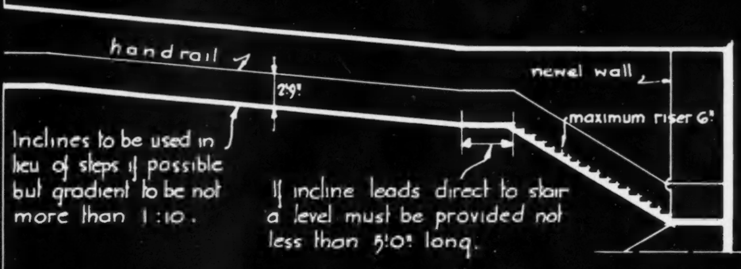

ASPHALTE
DATUM
ARCH TO SHRINE
SOUTH DOOR
RADIATOR RECESSES 5'6 x 3'3
AIR DUCT
DUCT
ASPHALTE
RADIUS 4'6½"
RADIUS 18'0"
13' 0"
6'10"
6'6"
3'4½"
11'0"
4'0"
19'0"
3'6"
2'9"
10'0"
9'5"
0 1 2 3 4 5 10 15


CURVED & STRAIGHT
LEAD
LOBBY
LAVATORY & W.C.
1" CAMBER
STONEWORK ON CURVE
WOOD DOOR & FRAME ON STRAIGHT
DEVELOPED ELEVATION OF BASEMENT WINDOW
EXTERIOR
INTERIOR
5¼ 1'-4"
BASEMENT
[BRICK DISTEMPERED]
7'-0"
ASPHALTE D.P.C.
1 0 1 2 3 4 5 10 15

Based on the regulations (1928) under the Building Acts.

STAIR LAYOUTS CLASSED AS ONE EXIT.


LAYOUT A.
minimum tread 11"
landing length 3'0" minimum
flights of not less than 3 risers not more than 16 risers
WIDTH (see also under "exits")
not more than 300 persons width to be 4'0"
more than 300 persons width to be 5'0"
widths to be measured between finished faces of walls.
turns are compulsory after flights as shown
landing length to be not less than width of stair
LAYOUT B.
DOORS when open to give width in clear as required for stair
minimum tread 11"
flights of not less than 3 risers & not more than 12.
landing length to be not less than width of flight
flights of not less than 3 risers & not more than 12.
landing 3'0" minimum.


handrail
2'9"
newel wall
maximum riser 6"
Inclines to be used in lieu of steps if possible but gradient to be not more than 1:10.
If incline leads direct to stair a level must be provided not less than 5'0" long.

PROJECTIONS:

IN STAIRS: No projections are permitted below 6'9" except handrails having a maximum projection of 3".

IN CORRIDORS. No projections which exceed 2" are permitted below 6'9" except handrails having a maximum projection of 3".

RECESSES: all recesses to be defended.

HANDRAILS: to be continuous around landings and steps and where stairs turn to be chased flush into newel walls.

EXITS: STAIRS AND CORRIDORS (as required by L.C.C.).

NUMBERS AND WIDTHS:

a. 2 separate exits shall be provided from every tier or floor which accomodates not more than 500 persons; and, where more than 500 persons, an additional exit must be provided for every 250 persons or part of 250 above 500.

b. 2 of the exits from each floor or tier to deliver into different thoroughfares.

c. if a floor accomodates not more than 300, the width of each exit to be not less than 4'0" measured between the finished walls or between leaves of doors when open, whichever is the smaller.
if a floor accomodates more than 300 persons the width, as measured above, to be not less than 5'0"

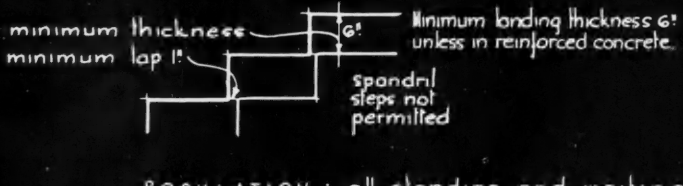
d. in the case of premises (or portion of) being 40'0" or more above pavement level the total width of exits provided to be 25% in excess of widths required by paragraph c.

the aggregate unobstructed width of all exits from a vestibule to a thoroughfare to be at least 33⅓% greater than the aggregate width of all exits that lead into such vestibule.

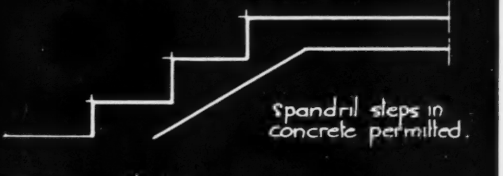
CONSTRUCTION

exits to be of fire resisting materials, enclosed and supported to the satisfaction of the Council. (i.e. 9" walls, F.R. self closing doors, and F.R. roof and glazing are required.)

STONE STEPS AND LANDINGS


minimum thickness
minimum lap 1"
6"
Minimum landing thickness 6" unless in reinforced concrete.
Spandril steps not permitted

REINFORCED CONCRETE STEPS AND LANDINGS.


Spandril steps in concrete permitted.

POPULATION: all standing and waiting space must be included in estimating the population. Tea rooms, lounges, restaurants and foyers shall be regarded as waiting space.

INFORMATION SHEET: STAIRS: FOR PLACES OF PUBLIC ENTERTAINMENT. ETC.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 20 •

PUBLIC EXIT STAIRS

•

THIS week's Sheet is the fourth of a series of nine dealing in detail with the layout and construction of staircases. It summarizes the requirements in structure and capacity laid down under the Building Acts and L.C.C. regulations for exit stairs in places of public entertainment.

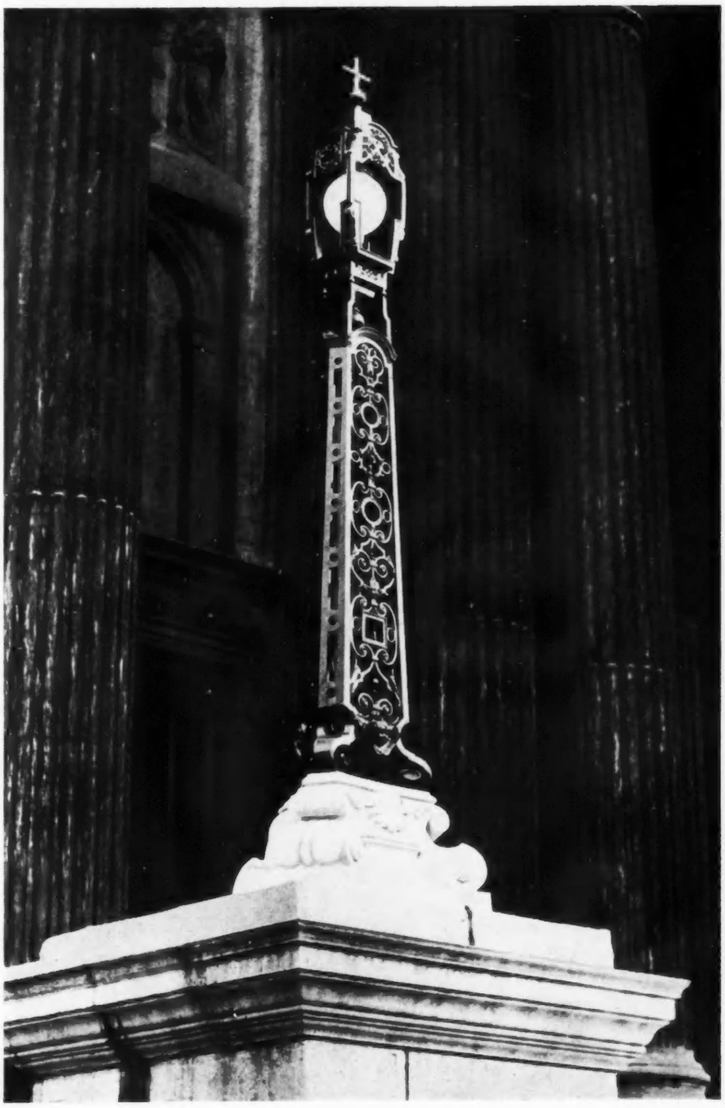
An additional Information Sheet again appears among the advertisements in the present issue. On pages xxvii—xxviii will be found drawings and data, prepared by the manufacturers, to illustrate three methods of constructing walling with proprietary hollow bricks.

The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes
17. May 10—Stairway Diagrams.
18. May 17—Risers for Stairs.
19. May 24—Stair Risers and Flights.

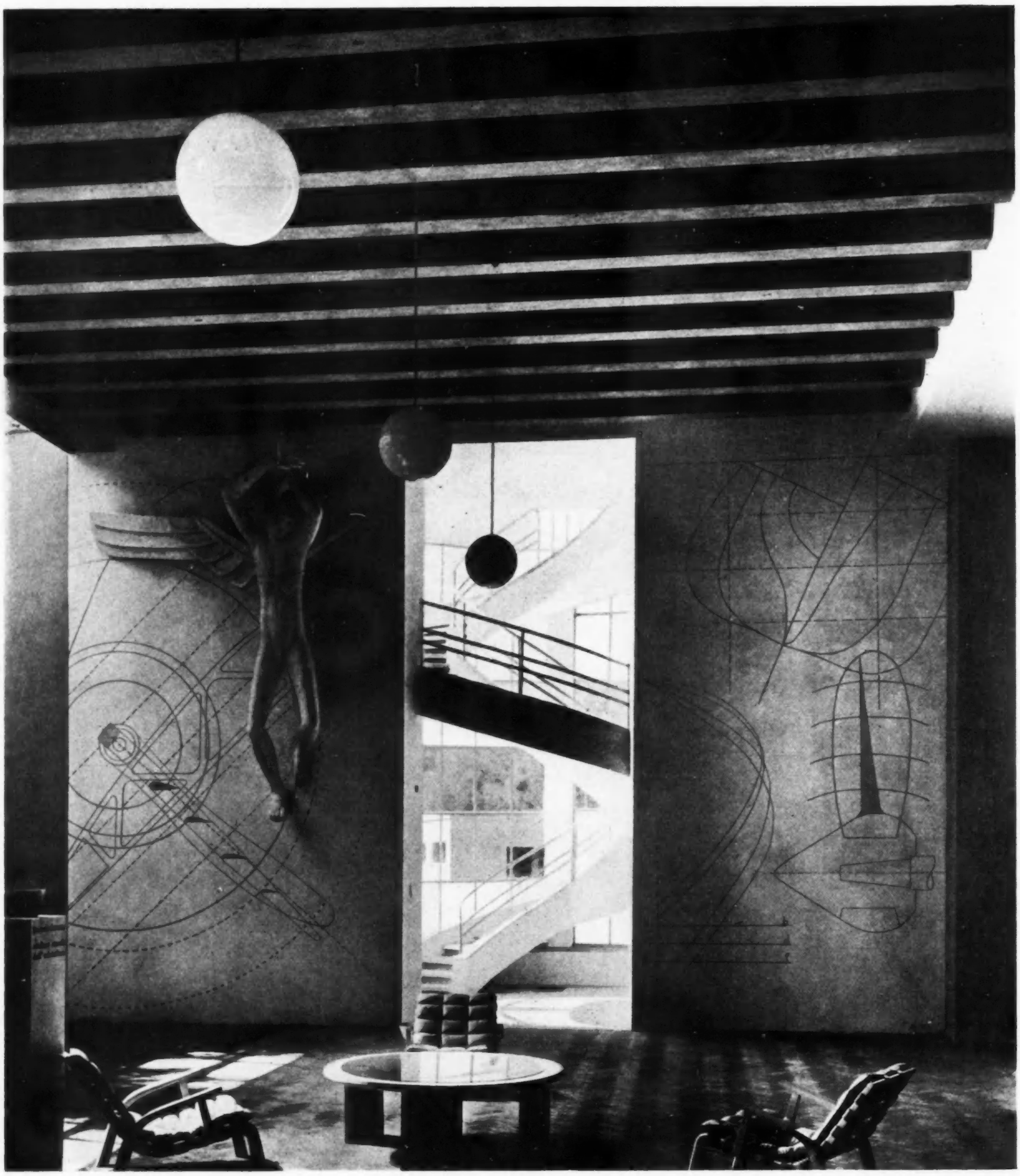
THE LAMPS AT ST. PAUL'S

FROM SIR EDWIN LUTYENS'S DESIGN



ONE of the pair of lamps outside the main west front of St. Paul's Cathedral, unveiled without formal ceremony at the end of last week. The standards, which are the gift of the President and Council of the Royal Academy, and were designed by Sir Edwin Lutyens, R.A., P.I.A.A.S., with the collaboration of Reid Dick as sculptor, represent the fruition of an idea of Canon Alexander's dating back more than twenty years, but delayed in execution first by the war and then by the reconstructive measures taken to preserve the fabric of the Cathedral.

The pedestals are of open wrought iron, triangular on plan, and rise from winged-cherub-head bases to support the lamps, glazed with milk-white glass, which are surmounted, in turn, by the Chapter arms—gilded crossed swords—and crosses. The whole reach a height of fifteen feet.



AT THE MILAN TRIENNIAL EXHIBITION

For the triennial exhibition of modern applied art and architecture at Milan, which was opened last month and closes at the end of September, a special large building has been erected from the designs of G. Muzio. In it is the room of which one end appears in the above view. This was organized and decorated by Gustavo Pulitzer Finali to illustrate "Æsthetics in the means of conveyance."

The figure of Icarus, sculptured by Marcello Mascherini, suggests the Spirit of Beauty rising from the world of mechanics. The decoration of the walls takes its inspiration from technical drawings. Down one side of the room are models and photographs of the most modern ships, aeroplanes, locomotives and motor cars, showing their evolution from an artistic point of view; down the other run bays exhibiting the interiors designed by architects for the various vehicles of travel displayed.

The intention underlying the exhibition is twofold: to demonstrate to laymen the opportunities and advantages of inviting the collaboration of trained designers; and to reveal to designers on their part, the forms, tendencies and signification of modern mechanism and the possibilities they offer for seemly exterior treatment.

THE FOURTH INTERNATIONAL CONGRESS OF BUILDING SOCIETIES

THIS week the Fourth International Congress of Building Societies is taking place in London. The portraits of the directors of these societies are featured in the daily press, and the originals of the pictures announce in somewhat grandiloquent language how much they contribute to the nation's progress and economic well-being.

No one will, of course, deny that these societies have met a very real need in human nature. For over a hundred years they have helped the wage-earner to save money and to become the owner of his own home. Their success is best proved by the latest report of the Chief Registrar of Friendly Societies, in which it is stated that there are now over 1,000 societies in Great Britain, 1,692,167 share investors, 868,794 borrowers, and total assets of over £469,000,000. The rapid increase which has taken place since 1919 is illustrated by the fact that the two largest building societies have now between them about twice the assets of the whole of the societies put together before the war.

According to the speeches made by the leaders this week, the societies are now to take the leading rôle in a brilliant new act in the national drama, called "New Homes for Old." This is their reward for their persistence last year, when the Housing Committee of the National Association of Building Societies pressed upon Sir Hilton Young their views that the time had come when it was no longer necessary for the State to give housing subsidies. They declared that costs had fallen so far that the subsidy was no longer justified, if private builders were to be given a chance. In view of the Treasury's desire to save public funds, they were pushing, of course, at an open door. It was almost a foregone conclusion that subsidies would either be terminated or reduced, if the Government could find a good excuse and defence for such an action.

Today the Minister of Health and his colleagues cling to the building societies in the hope that they will find an outlet for their accumulated funds and go ahead with a large building programme. But recently there have been signs of hesitation, and the Ministry have made it very clear that they are not relying solely upon the societies to secure the universal building of small houses to meet the present demand, especially in relation to re-housing persons displaced by slum clearance.

From the architectural point of view, as we have pointed out from the first, there are grave dangers in allowing speculative builders to construct what Lord Riddell, the President of the Metropolitan Building Societies' Association, recently called "monstrosities." It is therefore encouraging that Sir Raymond Unwin is to address the Congress tomorrow on the subject of the design of the new houses to be built with the money advanced by the societies. All must hope that his words will not fall on deaf ears.

The Ministry of Health, fortunately, have been warned of these rocks ahead. In the Memorandum on the new Act, which is now in the hands of local authorities, special emphasis is given to the necessity of the houses being designed by qualified architects or else of the plans being submitted to architectural panels. This warning is all to the good, provided it is heeded by the societies. It is, however, somewhat disconcerting to study articles written by some of the outstanding men of the movement, and to find in them no hint whatsoever that they recognize the value of skilled planning and design.

For the question of the control of the lay-out and of the design of such houses as may be financed by building societies is obviously a vital one. Yet the more the present Town and Country Planning Act is studied, the more formidable the procedure appears to be. A Town-Planning Scheme has to pass through 28 different stages, and property owners, if advised by skilful counsel, will find plenty of ways of holding up most schemes.

We cannot, therefore, rely on legislation alone to protect this country in the future from the execrable types of houses which have sprung up like mushrooms during the last ten years. The education of the public to appreciate good architecture proceeds slowly, and private interests are strong.

It is significant of the present outlook on the subject that in an admirable supplement published a few days ago by *The Daily Telegraph* on the subject of building societies and their work, although members of the House of Lords and House of Commons, Railway Directors, a Major-General, and an American Senator contributed informative articles, there was no architect-contributor. Lord Riddell said that houses should be "more beautiful" and pleaded for "tastefulness in new designs." Viscountess Dunedin wrote on "Women and the Domestic Architect," and declared that the architect of today will be forced to give more consideration to the woman's point of view in the planning of the house. But in this comprehensive survey, no member of the Royal Institute of British Architects and no recognized Town-Planner were allowed to suggest that this much-boosted housing campaign should be guided by experienced and qualified men.

Lord Howard de Walden, who is to lay the foundation stone of the new R.I.B.A. building in Portland Place, on June 28.

NOTES & TOPICS

PICKING HOLES IN THE MODERN STREET

ON Tuesday, the eighth talk of the "Design in Modern Life" series was broadcast in the National Programme by Mr. Frank Pick, managing director of the London Underground, and President of the Design and Industries Association, and Mr. John Gloag. Their subject was the Design of the Street, and the discussion oozed with dissatisfaction concerning things as they are.

*

Mr. Pick released an enormous flood of facts about the needs of traffic, and Mr. Gloag, who appeared to be posing as an aggrieved pedestrian during part of the talk, was compelled to admit that the chief matter that emerged from the discussion was that traffic was controlling the whole plan and character of the modern city.

*

" The city itself," he said, " you pass through quickly or slowly as the case may be, but you pass through it on wheels."

*

This comment stimulated Mr. Pick to produce a vision of the Street of the Future. As traffic congestion gets worse (and it's depressing that one of the greatest living experts in traffic seems to think that it's going to get worse) it will be necessary to lift the centre of London up into the air about 15 or 20 feet, and double-deck all streets.

*

I liked the description of Trafalgar Square as " civic authority and commercial irresponsibility shaking hands in the centre of the Empire."

*

One of the complaints Messrs. Pick and Gloag underlined with their restrained but bruising indignation was that the street in the city of today has too many jobs to do. Mr. Pick was particularly severe on statuary cluttering up the roadway.

Frankly I don't think he was severe enough. Think of those ridiculous Victorian politicians in bronze frock coats; but I see the sculptor's difficulty. You couldn't have given Gladstone a Roman toga or a loin cloth; not in the nineteenth century; not now, even.

*

The other day I heard the comment of a country gentleman of the old school on the figures that adorn the façade of the Bank of England extension. After regarding them coldly for some minutes, the fine, blunt old squire said: " I suppose it's all right for men's figures, but I don't think they ought to take those sort of liberties with women."

*

MORE ABOUT DESIGN

While I am on the subject of design, let me say that, in my opinion, the second number of *Design for Today* is an even more remarkable affair than the first one. One expects the first issue of a paper to contain some good material because, after all, it is largely the first issue which is to fix the public idea. One often finds, however, that the second issue is rather a lame affair when set side by side with its predecessor. *Design* is a very notable exception.

*

Mr. Clough Williams-Ellis contributes a most interesting article on " The Road House," and nobody (if I may be allowed to offend by regarding Portmeirion as in any sense a *road* house!) should know more about the subject. Reference is also made to that most interesting and stimulating experiment, " Knights on the Road."

*

When the last issue appeared, I extolled the admirable notes by Mr. Gordon Russell under the heading of " The Designer and His Problem," and only innate delicacy prevented me from betting heavily that the others of the series would fall short of the high standard set in the first

C. Sargeant Jagger, the sculptor, in his Chelsea studio, putting the finishing touches to his model for the colossal figure of Christ for Liverpool's new Roman Catholic Cathedral.

The frontispiece to this issue shows a room at the Milan Exhibition. Here is another: a private dining room for the Cosulich motor liner, "Oceania." It is constructed of incombustible materials: ceiling, stainless steel; walls, engraved glass; furniture, steel and green leather; floor, green linoleum.

one. I am glad that I did nothing so rash, because the second happens to be by Mr. Keith Murray, and deals with the designing of his now famous table glass, which is made by Stevens and Williams.

*

I am not quite sure about "Printing for our Time." I may be personally prejudiced, but it smacks rather of printing for personal amusement.

*

By far the most brilliantly clever thing in the whole issue lies in three pages under the heading "Sport and its Trophies," which are hitched on to the Shell-Mex House exhibition of sporting trophies. Riding, golf, chess, horse racing, yachting and sporting dogs are all illustrated by photographs, and alongside each is a picture of the trophy with which the unsuspecting winner cannot avoid being presented. ("Oh look, Ellen! Isn't that one lurvly!")

*

SIR EDWIN LUTYENS IN THE NEWS

Sir Edwin Lutyens is much in the news this week. When I picked up my morning paper on Monday, I saw his name in longish articles on three of his works.

*

First, there was Liverpool Cathedral; secondly, the new lamp standards for St. Paul's Cathedral; and, finally, his appointment as architect for the memorial to Lady Cynthia Mosley.

*

I am not quite certain whether some of my readers have heard Sir Edwin's story of his first meeting with Dr. Downey, his Liverpool Cathedral "client." In case not, here it is.

*

When Sir Edwin travelled up to Liverpool for his first meeting with the Archbishop, he pondered whether to bow or kneel when shown into his presence.

*

Dr. Downey's first words were: "Will you have a cocktail?"

*

Sir Edwin replied . . . . . .

STONE-LAYING UP-TO-DATE

At the opening of the new Plymouth Head Post Office recently, Sir Kingsley Wood, Postmaster-General, laid, by electric contact, the foundation stones of the Telephone Exchanges in Exeter, Torquay and Plymouth.

*

In this case pressing the button really did the whole trick, for the stones had been counterbalanced up to few pounds' weight capable of being supported by a thin wire. The current fused the wire, allowing the stone to drop, and automatically, as it touched its bed, another contact lit a green lamp on the table before the P.M.G.

*

When we have television screens I foresee exciting little ceremonies taking place half-way round the world.

*

THE NEW BELGIUM

I spent a part of last week in Belgium and was impressed by the exuberance of the new architecture. Especially in post-war seaside resorts like Le Zoute Belgian architects show what gaiety can be added by skilful use of colour.

*

In some of the hotels they have also proved the value of economical planning. Belgium has always catered for a class of visitor who expects reasonable prices. Special attention has been given to the planning of rooms so that not an inch is wasted.

*

In the western part of Belgium, near the French frontier, many vestiges of the war still remain in the shape of concrete emplacements, and some shelled houses have not yet been repaired.

ASTRAGAL

THE ARCHITECTS' DIARY

Thursday, June 8

ROYAL ACADEMY, Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

L.C.C. CENTRAL SCHOOL OF ART AND CRAFTS, Southampton Row, W.C.1. Annual Exhibition. Until Saturday, June 24. 10 a.m. to 8 p.m. (Saturdays: 10 a.m. to 12 noon.) 10 *a.m.*

CONGRES INTERNATIONAUX D'ARCHITECTURE MODERNE. At Moscow. Until June 10. Subject "The Functional Town."

NATIONAL ASSOCIATION OF BUILDING SOCIETIES. At the Wharncliffe Rooms, Hotel Gt. Central, N.W. Annual meeting. 10 *a.m.*

NATIONAL HOUSING AND TOWN PLANNING COUNCIL. At the City Hall, Cardiff. Regional Conference.

Friday, June 9

NATIONAL ASSOCIATION OF BUILDING SOCIETIES. At the Wharncliffe Rooms, Hotel Gt. Central, N.W. Annual meeting: second session. "The Value of Good Design in Dwellings." By Sir Raymond Unwin, P.R.I.B.A. 10 *a.m.*

Saturday, June 10

Sunrise 4.43 a.m. Sunset 9.15 p.m..

Monday, June 12

R.I.B.A., 9 Conduit Street, W.1. Council meeting. Announcement of Election of Council and Standing Committees. Informal discussion on matters of professional interest. 8 *p.m.*

Wednesday, June 14

NATIONAL HOUSING AND TOWN PLANNING COUNCIL. At the County Hall, S.E.1. Annual Conference of Local Authorities in London and the Home Counties.

INSTITUTION OF STRUCTURAL ENGINEERS. At Birmingham. Summer Meeting. Until June 16. 2.30 pm.: Presidential address. *At the Council House.* 7.30 p.m.: Dinner. *At the Grand Hotel.* 2.30 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

The national drama, " New Homes for Old " 741

No loin cloth for Gladstone 742

Did Sir Edwin Lutyens refuse the cocktail ? 743

Why the universal acceptance of 5 per cent. fees would be a good trading move on the part of architects 750–1

John J. Blower's master-work 754

Drawings of an " omnibus " study desk 756–7

England's smallest church ? 758

From Friends' Meeting House to wireless studio 766

●

> *The Building Industries National Council is stimulating interest in the slum clearance problem among local authorities. The replies received by the Council to a letter circulated among these authorities urging them to commence operations at once are encouraging. It is obvious that a number of these bodies really intend to tackle the problem in a serious manner. This will help the Building Industry and all members of the Building Industry should do what they can to stimulate their own local councils to activity in this matter.*
>
> *Subscriptions to the fund of the Special Relations Committee of the B.I.N.C. should be addressed to Mr. Oswald Healing, at 5 Duke Street, Adelphi, W.C.2.*

INTERNATIONAL CONGRESS OF BUILDING SOCIETIES

The fourth meeting of the International Congress of Building Societies and the sixty-fourth annual meeting of the National Association of Building Societies was begun in London on Monday last, when a reception to the Overseas delegates was held by Sir Harold and Lady Bellman at their home at Finchley.

On Tuesday, the opening session of the Congress was held in the Wharncliffe Rooms, Hotel Gt. Central, N.W. Following the address of welcome by the President (Sir Enoch Hill, J.P.), papers reviewing the position and progress and special features of the movement in the following countries were read : Austria (by Herr Wilhelm Flatz) ; British Guiana (by Mr. W. Seivewright Stoby) ; Bulgaria (by Mr. D. A. Ivanoff) ; Commonwealth of Australia (papers by Messrs. C. W. Pitt, T. Waites and V. Dumas) ; Denmark (by F. C. Boldsen) ; France (by M. Georges Risler) ; Germany (by Dr. H. Schuon) ; Great Britain (by Sir Harold Bellman) ; New Zealand (by Mr. E. G. Cowell) ; Northern Ireland (by Mr. W. D. Scott) ; South Africa (by Mr. J. R. Booth, J.P.) ; Switzerland (by Dr. J. Grogg) ; United States of America (by Mr. H. F. Cellarius). Sweden (a statistical summary only was read.)

Sir Harold Bellman, in his paper, pointed out that the movement had throughout its history in Great Britain provided assistance for the purchase of at least 2,000,000 houses, affording accommodation for approximately 10,000,000 persons.

At the afternoon session, H.R.H. the Prince of Wales expressed a welcome to the delegates. The Prince, in his address, said :

" The achievements of building societies are to be read in our contemporary history, and the rapidity of your progress in the post-war years in particular is one of the most stimulating features in our social and economic life. During these years Great Britain has slowly but surely overcome the most acute phase of housing shortage in its history. Approximately 2,000,000 houses have been erected in England and Wales since the year 1919, and to the various forms of State and local government assistance must be added your own practical contribution in helping to finance this gigantic housing effort.

" But in spite of the achievements of the post-war years we must remember the fact that there are not yet enough homes of the right type in this country.

" While as building societies you may not be directly concerned with slum clearance, nevertheless you can render invaluable assistance by giving your support to those schemes which have for their objective the provision of alternative and better accommodation for the lower paid workers. It is fairly obvious that until adequate alternative accommodation has been provided the problem of demolishing unsatisfactory and insanitary dwellings will be a grievous one."

Lord Gorell, C.B.E., M.C., *president of the Exhibition of Industrial Art in Relation to the Home, which is to be held at Dorland House from June 20 to July 12.*

After a vote of thanks to the Prince had been made by Mr. J. R. Booth, of South Africa, the delegates adjourned to the various sectional meetings.

In the evening, the Congress reception and dinner were held in the Wharncliffe Rooms. Apart from the loyal toasts, no speeches were made.

Yesterday, the morning session was devoted to discussions on the " Economic Significance of the International Thrift and Home Ownership Movement," opened by Professor J. H. Jones, M.A., and " Home Ownership and International Relationships," opened by Herr Wilhelm Flatz.

The afternoon was devoted to excursions to Hatfield House and Welwyn and Letchworth Garden Cities. In the evening, the British Government reception to Overseas and British delegates took place at the London Museum, Lancaster House, S.W.

ADVERTISING EXHIBITION

The Hall of Success is to be one of the principal features of the Advertising and Marketing Exhibition, to be held at Olympia from July 17-22.

It will contain a display of certain products of manufacturers who can be regarded as the most successful in the trades in which they are engaged. It is proposed to include in the displays data which will demonstrate the evolution of these products and the methods by which they have been made preeminent.

MUNICIPAL OFFICES FOR LEICESTER

Leicester's application to borrow £126,479, for the building of municipal offices and electricity showrooms, has been sanctioned by the Ministry of Health. It is hoped to commence building at an early date.

£95,000 BOATING LAKE

A new boating lake, constructed at a cost of £95,000, was opened at New Brighton last week. The lake is part of Wallasey's £1,000,000 scheme to improve the eight-mile sea-front.

HOUSING CONFERENCE AT NOTTINGHAM

The East Midlands Housing and Town Planning Conference was held at Nottingham last week. Mr. G. A. Goodall (vice-chairman of the Nottingham Corporation Housing Committee) presided.

The chairman, in his opening address, pointed out that since the last conference a year ago the Government had shown a changed outlook regarding slum clearance, but there was still an immediate need for vigorous and sustained action. Another problem, almost as acute as slum clearance, was that of normal housing. Married people were still living in rooms, although building costs were at the lowest level since the war, and private enterprise had been unable to do very much towards building houses at rents within the reach of the artisan classes. He hoped, therefore, that the Government would restore some of the facilities which would enable local authorities to deal with the situation.

Mr. Frank Elgood, F.R.I.B.A., opening a discussion on the Town and Country Planning Act, appealed for a general speed-up in town planning on the part of local authorities. At the present rate of progress, if the whole country was to be covered by town planning schemes, they would have to live four hundred years.

After a discussion on the Housing (Financial Provisions) Act it was decided to forward a resolution to the Ministry of Health calling for an amendment in the financial provisions of the Act, whereby local authorities would be entitled to the subsidy for providing disposed tenants with other accommodation.

MANCHESTER REFERENCE LIBRARY

At a recent meeting of the Manchester City Council a suggestion that, as a matter of economy, someone already in the city's employ could advise as to the interior furnishing of the new Reference Library, was rejected. The Council unanimously agreed that Mr. E. Vincent Harris, F.R.I.B.A., the architect, should be allowed to direct this work. The architect has, however, renounced some of the fees he is entitled to draw for his advice in this matter.

NEW TOWN HALL FOR OLDHAM?

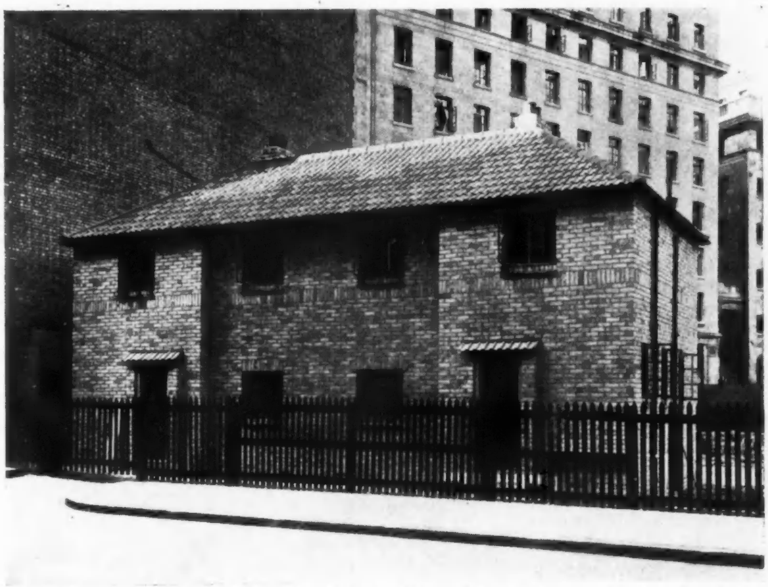
At a joint meeting of the Oldham Corporation committees, held last week, it was decided to recommend the Town Council to formulate a scheme immediately for a town hall and civic buildings on the Smethurst Street site, which is a slum clearance area. It is estimated that the scheme would cost at least £250,000.

MANCHESTER SOCIETY OF ARCHITECTS

At the annual general meeting of the Manchester Society of Architects, held in Manchester last week, Mr. J. R. Adamson, F.R.I.B.A., was elected president. Mr. Adamson is a member of the firm of Messrs. Bradshaw, Gass and Hope, of Bolton, and is the third member of that firm to be elected to this office.

In the annual report of the Council for 1932-1933 it is pointed out that the Council has supported a scheme for co-operation with house builders in the hope that an improvement might be made in the design of suburban houses. With this object a conference with representatives of the Builders' Association and the House Builders' Association was held in the Society's Rooms on February 24, 1933. As a result a committee has been appointed to arrange for a Competition for the purpose of obtaining panel designs suitable for use by speculative builders and others. Since the R.I.B.A. Conference the City Architect has published a pamphlet, which the Council trust may have the effect of producing economies and securing the erection of more suitable domestic buildings by private enterprise.

COTTAGES IN THE STRAND



This pair of cottages, which won for their architect, N. E. Leeson, the first place in the Building Centre Competition, have now been erected on a site in front of Bush House, Strand, W.C. The opening ceremony is scheduled for Thursday next, June 15.

The Council also state that their representatives on the Civic Advisory Committee, of which Dr. Percy Worthington is Chairman, continues to do a considerable amount of valuable, if unostentatious, work for the amenities of the city.

The Society now comprises three hundred and eighty members.

ARCHITECTURE IN NEW ZEALAND

The New Zealand Institute of Architects has under consideration certain activity in the direction of bringing before the general public the essential services which the architect has to render. The preparation of a booklet is now in the hands of a committee. It is to be hoped, states *The N.Z.I.A. Journal*, that the efforts so far made will bear fruit in some definite activity during the rest of the year. The Wellington Branch of the N.Z.I.A. suggest that one of the main objects of a public educative programme is that "every registered architect should associate himself with his work by placing his name on a sign on each of his buildings—small and large."

CHARTERED SURVEYORS' INSTITUTION

The Council of the Chartered Surveyors' Institution have awarded a Travelling Scholarship of £125 for one year to Mr. Alan Charles Golding, B.SC., P.A.S.I. Mr. Golding proposes, pursuant to the conditions of the scholarship, to travel in the British Isles, Denmark, Sweden, France, Italy and Germany for the purpose of investigating agricultural buildings and the capital equipment of farms and small holdings, and of preparing an ordered exposition of, and if possible of making an original contribution to, the existing knowledge on that subject.

COLWYN BAY PIER

The work of clearing the Colwyn Bay Pier of the mass of ironwork, which is all that remains of the pavilion after the fire, was begun last week. It is expected that the work will be completed within a month. A letter on this subject appears on page 753.

NATIONAL PHYSICAL LABORATORY

The annual reception at the National Physical Laboratory, Teddington, will be held on Tuesday, June 27, from 3 to 6 p.m.

CHANGES OF ADDRESS

Messrs. Wallis, Gilbert and Partners, Chartered Architects, Surveyors and Engineers, have removed their offices to Coastal Chambers, 15 Elizabeth Street, Buckingham Palace Road, S.W.1. Telephone Nos. 2257 (3 lines).

Messrs. W. G. Wilson and Son, F. and A.R.I.B.A., have removed to new offices at 14 Dean's Yard, Westminster, S.W.1. Telephone No.: Victoria 4120 (as before).

ARCHITECT'S WILL

Sir John William Simpson, K.B.E., P.-P.R.I.B.A., whose death took place last March, left £9,564 (net personalty £7,720).

R. I. B. A.

THE NEXT MEETING

On Monday, June 12, 1933, at 8 p.m., a general meeting will be held for the purpose of receiving the Scrutineers' Report on the annual elections of the Council and Standing Committees.

At the close of the general meeting a special general meeting will be held to confirm the resolutions passed at the special general meeting held on May 22, amending Bye-law 28(j).

This will be followed by an informal and private discussion on matters of current professional interest or concern.

A DANCE

A dance arranged by the R.I.B.A. Social Committee will be held in the R.I.B.A. Galleries, 9, Conduit Street, W.1, on Monday, June 26, from 9 p.m. to 1 a.m. Tickets, price 6s. each, can be obtained from the Secretary, the R.I.B.A., or through any member of the Institute. The price of the tickets includes light refreshments.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute:

The Old Ashmolean Museum: Mr. Sydney Kitson, Hon. Secretary, R.I.B.A., was appointed to represent the Institute at the 250th Anniversary of the opening of the Old Ashmolean Museum.

The Scottish Architecture Medal: Mr. T. R. Milburn (F.) was appointed as the R.I.B.A. representative on the Jury for the award of the Scottish Architecture Medal, 1927–1932.

Nineteenth Annual Conference of the National Association for the Prevention of Tuberculosis, Cardiff, July 13 to 15, 1933: Mr. W. A. Pite (F.), was appointed as the R.I.B.A. delegate at the above Conference.

Forty-fourth Congress and Exhibition at Blackpool of the Royal Sanitary Institute: Mr. F. M. Wilding (L.) was appointed as the R.I.B.A. delegate at this Congress.

Board of Architectural Education of the Royal Victorian Institute of Architects: Mr. Leighton F. Irwin (F.) was appointed as the R.I.B.A. representative on the Board of Architectural Education of the Royal Victorian Institute of Architects in the place of the late Mr. Rodney H. Alsop.

Standardization of Water Closets and Lavatory Basins: Mr. F. R. Taylor (L.) was appointed to represent the R.I.B.A. at a conference called by the British Standards Institution to consider the question of the standardization of water closets and lavatory basins.

The Social Committee: Miss G. M. Leverkus (F.) was appointed as an additional member to serve on the Social Committee as a representative of the Women Members Committee.

Legal Advice for Members of the R.I.B.A.: The Council approved a scheme submitted by the Practice Standing Committee for the provision of legal advice at moderate fees for members in regard to matters arising in their practice.

Nomination of Honorary Auditors for 1933–1934: Mr. E. J. W. Hider (F.) and Mr. J. Maclaren Ross (A.) were nominated as Honorary Auditors for the Session 1933–1934.

The Fellowship: The Council, by a unanimous vote, elected the following architect to the Fellowship under the powers defined in the Supplemental Charter of 1925: Mr. Vincent Keliy, B.ARCH., F.R.I.A.I. (Dublin).

Reinstatements: The following ex-members were reinstated: As Licentiates: Captain Charles Thomas Morris Evans, R.E., and Messrs. Sydney Rhys Crocker, and George Holmes.

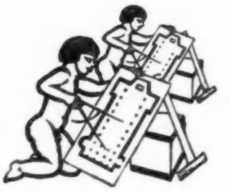
Transfer to the Retired Members Class: The following members were transferred to the Retired Members Class: As Retired Fellows: Messrs. Edwin Thomas Johns and Samuel Hurst Seager. As Retired Associate: Mr. John Reginald Best.

Resignations: The following resignations were accepted with regret: Frank Stephen Reynolds (F.), Milton Botting (A.), Doris Silcock (*née* Musker) (A.), John Rowland Fairbairn (L.), John Frank Johnson Goodacre (L.), Edward A. B. Hay (L.).

Election of Students: The following Probationers were elected as Students of the R.I.B.A.: Nathaniel Gordon Abercrombie (University of Cambridge); Walter Warne Atkinson (Northern Polytechnic); Hugh Maxwell Casson (University of Cambridge); William Halkerston (Robert Gordon's Colleges, Aberdeen); Ernest Dennis Jordan (Leicester College of Arts and Crafts); Samuel McHarg (Glasgow School of Architecture); Victor James Sargison (Special Exemption); Roderic Walter Voller (Special Exemption); Alexander Abercrombie Wilkie (Glasgow School of Architecture); David Marshall Millwood Wilson (University of London); John Pearson Worrow (Architectural Association).

Vincent Kelly, B.Arch.(N.U.I.), F.R.I.A.I., the architect member of the Committee of Reference set up to advise the Irish Minister for Justice on the allocation of the moneys for voluntary hospitals from the sweeps. He has just been elected a Fellow of the R.I.B.A., at a meeting of which he is to lecture on hospitals.

COMPETITION



NEWS

COMPETITION RESULT

Mr. R. H. Gibson, P.R.U.S.A. has made his award in the competition for a town hall at Portstewart, Co. Londonderry, Ireland, as follows: First prize (£52 10 0) Mr. Benjamin Cowser, A.R.I.B.A., of Belfast. The competition was limited to architects practising in Northern Ireland.

SURBITON HOSPITAL

Mr. C. Ernest Elcock, F.R.I.B.A., the assessor in the Surbiton Hospital competition, has now issued his replies to competitors' questions. These, about a dozen in all, have been circulated to the competitors. The assessor points out that the replies now form an integral part of the conditions of the competition, and no further questions will be answered.

STOCKHOLM COMPETITION

Owing to the large number of schemes submitted in the competition for a town-plan for the part of Stockholm called Lower Norrmalm, it is understood that the result will not be announced until August. Each scheme is being carefully analyzed by the authorities concerned.

Competitions Open

September 1.—Sending-in Day. Proposed Hospital at Surbiton. Assessor: C. E. Elcock, F.R.I.B.A. Premiums: £120, £75, £50 and £25. The conditions, obtainable from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton, were reviewed in *A.J.* for May 24.

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Assessor: C. Cowles-Voysey, F.R.I.B.A. Premiums: £350, £250 and £150. Full conditions, etc., were published in our issue for May 17.

Competition Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor: H. S. Goodhart-Rendel, F.R.I.B.A. Premiums: £150, £100 and £50. Conditions have not yet been drawn up.

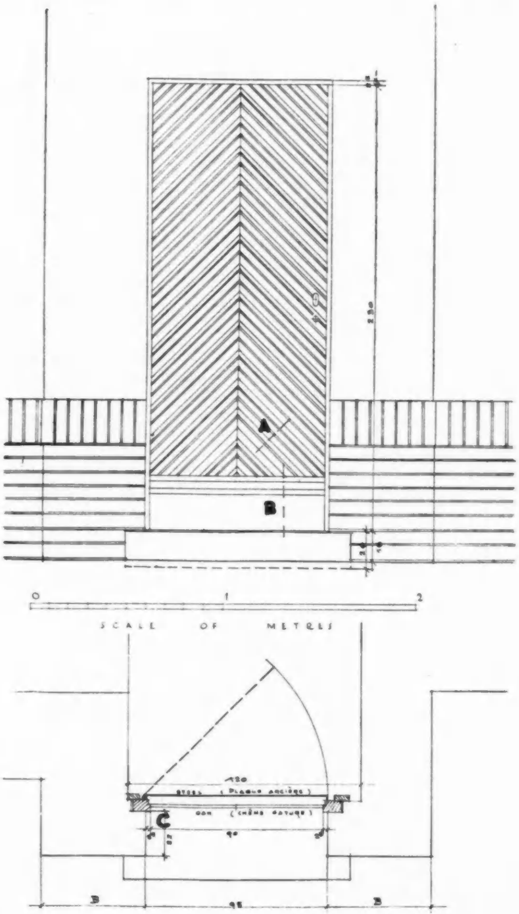
Proposed Municipal Sanatorium and Craymount Children's Hospital, Belfast. Limited to architects practising in Northern Ireland. Assessor: R. S. Wilshere, A.R.I.B.A. Conditions are now being drawn up by the assessor.

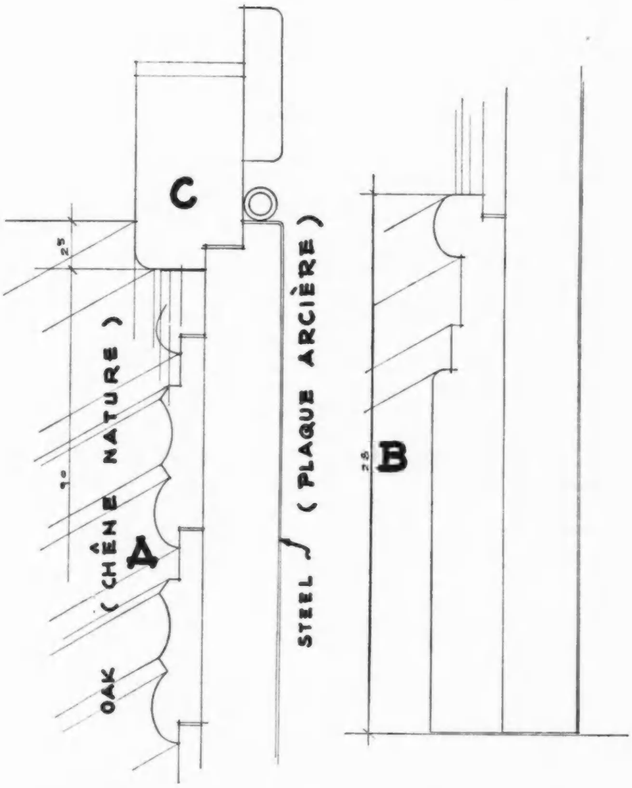
Proposed Municipal Offices and Extension to the Library and Electricity offices for the Metropolitan Borough of Stoke Newington. Conditions have not yet been drawn up.

ON THE AIR

On Tuesday next, June 13, the ninth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Messrs. Robert Atkinson, F.R.I.B.A., and John Gloag, who will discuss "Public Buildings."

COUNTRY HOUSE AT ST. CLOUD





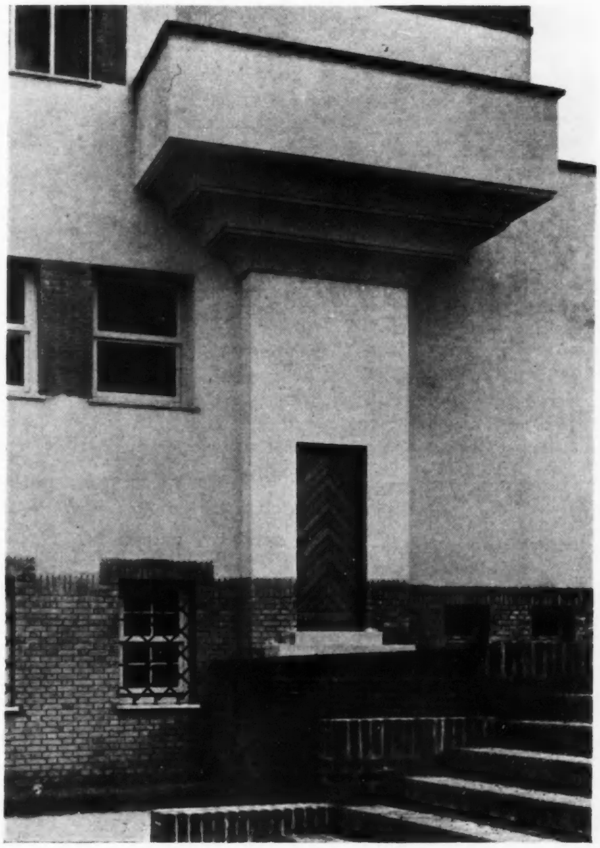
DESIGNED BY

The villa of which plans appear overleaf was built for Count Paul de Vallombrosa on a hill which rises from the Seine at St. Cloud to the links of the Golf de St. Cloud, offering a wide view over the Bois de Boulogne and the whole of Paris. The slope has been put to advantage in the planning of the ground floor, by bringing the level of the large studio, its main feature, on to a lower level than the rest, thus achieving a height proportional to the dimensions of this room, of which the landing and staircase from the little salon form an attractive feature. Consequently, the entrance-hall, with the adjoining salon, and the staircase-hall, are on the same level as the right wing of the building, which contains dining-room and kitchen quarters, giving the servants' rooms in the basement the character of a ground floor in relation to the lower point of the slope.

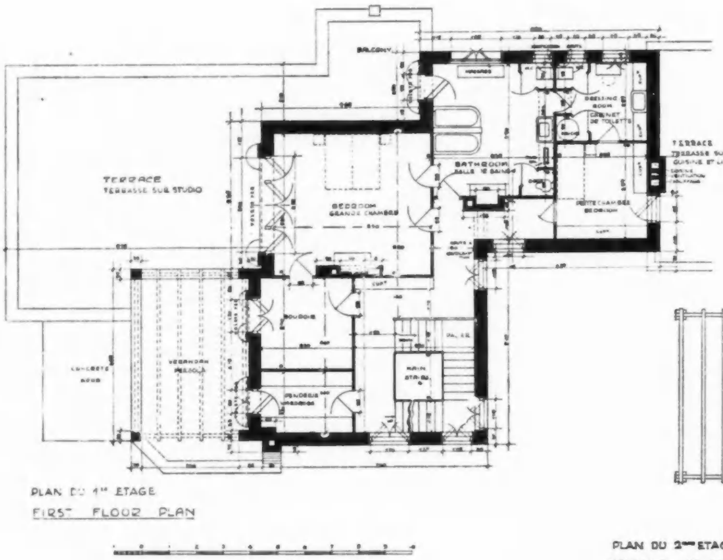
Large terraces are placed to the north of the studio; these again have a full view over Paris. The large windows, which almost form the walls on three sides of the studio, can be sunk into the basement by means of electric motors, thus transforming the studio into a covered terrace.

All technical details have been carefully considered in the light of the character and possibilities of the materials employed. The outside doors, details of one of which, opening from the north terrace, are shown above, are of oak, and their lively design presents an effective contrast with the smoothness of the walls, which are of light facing bricks, and white cement rendering over reinforced concrete.

MICHAEL ROSENAUER

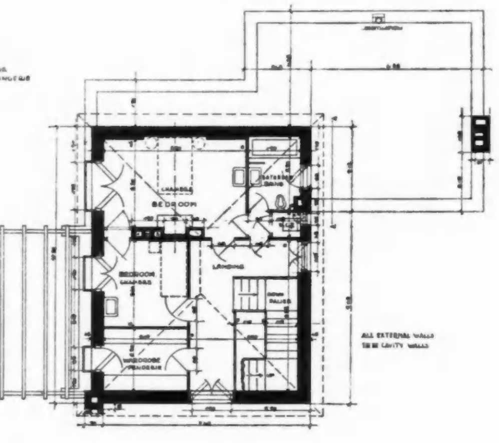


COUNTRY HOUSE AT ST. CLOUD


BALCONY
TERRACE
TERRASSE SUR STUDIO
BEDROOM
GRANDE CHAMBRE
BATHROOM
SALLE DE BAINS
DRESSING ROOM
CABINET DE TOILETTE
PETITE CHAMBRE
BEDROOM
TERRACE
TERRASSE SUR CUISINE ET LINGERIE
BOUDOIR
VERANDAH
PERGOLA
CONCRETE ROOF
PENDERIE
WARDROBE
MAIN STAIRS
PALIER

PLAN DU 1er ETAGE
FIRST FLOOR PLAN

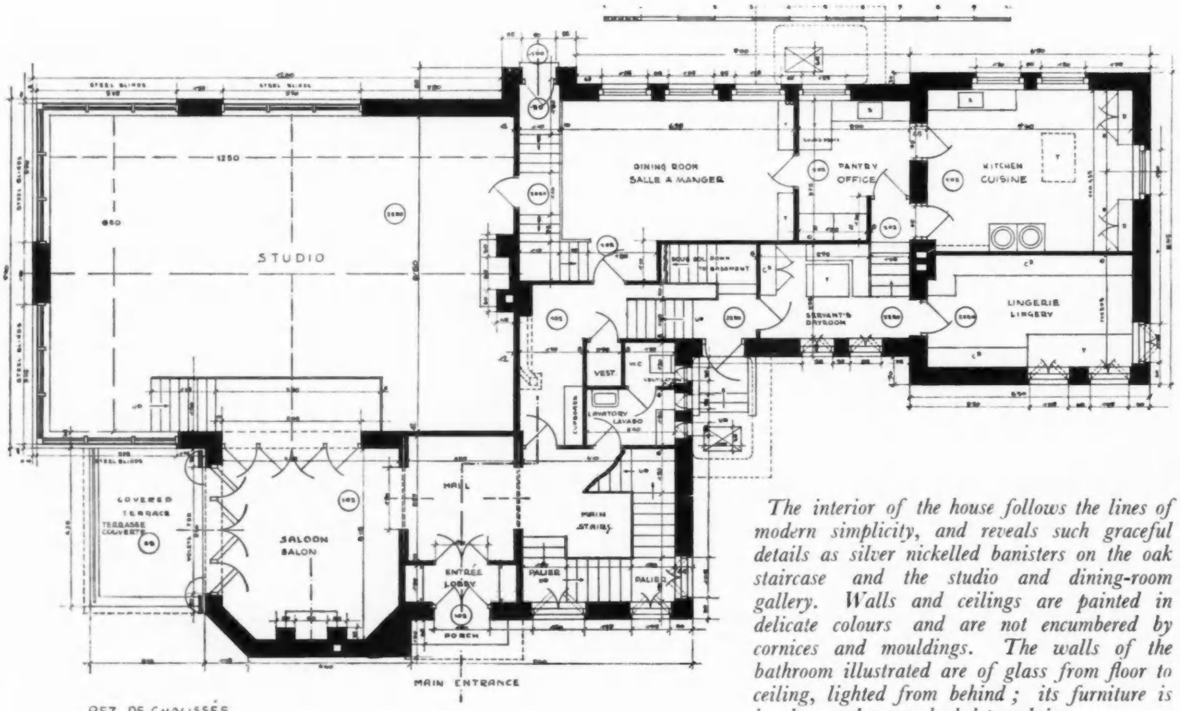
Note: North is at the top of the plans.


CHAMBRE
BEDROOM
BATHROOM
BAINS
BEDROOM
CHAMBRE
LANDING
PALIER
WARDROBE
PENDERIE
ALL EXTERNAL WALLS
CAVITY WALLS

PLAN DU 2me ETAGE.
SECOND FLOOR PLAN

All the first-floor rooms lead out to large terraces, built over parts of the studio on one wing and over the kitchen quarters on the other. The parapets of the terraces are arranged with flower beds, from which flowers and creepers hang over the outside walls. The main terrace is partly covered by a flower pergola.

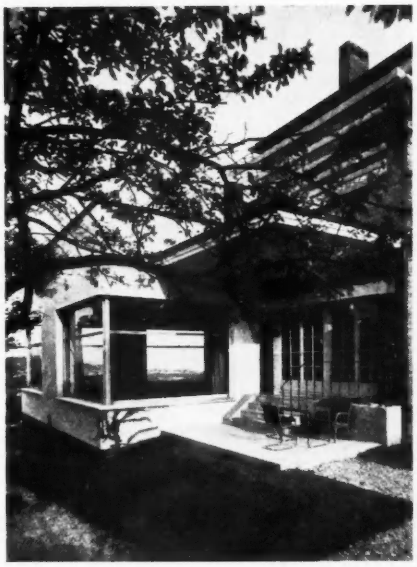
The second floor contains two guest-rooms with bathroom. Only this portion of the building is covered with a tiled roof; all other parts are finished with terraces. The composition of the building masses is in harmony with the rhythm of the hilly surroundings, and the treatment of the elevations aims at avoiding any sign of heaviness. Extremely modern constructions, as, for instance, the large windows which avoid even corner pillars, and have only the steel frames for the sliding panes, are reconciled with the use of materials, like bricks, not new in the construction of domestic buildings.

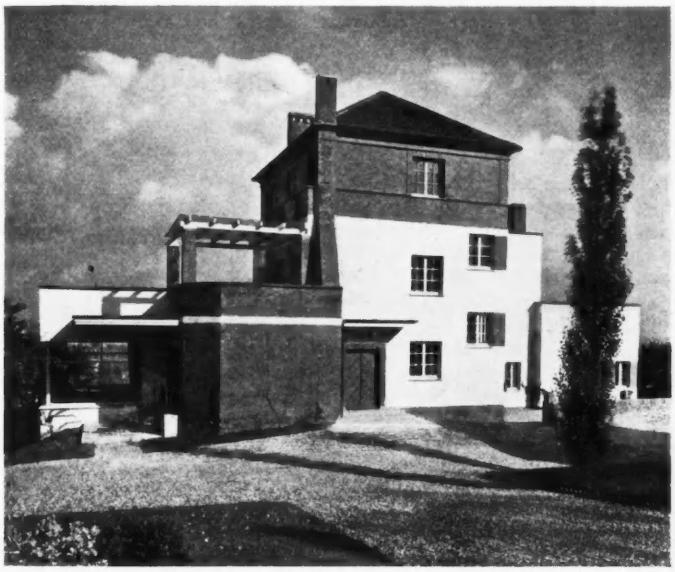

STEEL BLINDS
1250
650
STUDIO
DINING ROOM
SALLE A MANGER
PANTRY
OFFICE
KITCHEN
CUISINE
SOUS SOL DOWN TO BASEMENT
SERVANT'S DAYROOM
LINGERIE
LINGERY
VEST
W.C.
LAVATORY
LAVABO
CUPBOARD
COVERED TERRACE
TERRASSE COUVERTE
SALOON
SALON
HALL
MAIN STAIRS
ENTRÉE
LOBBY
PALIER
PORCH
MAIN ENTRANCE

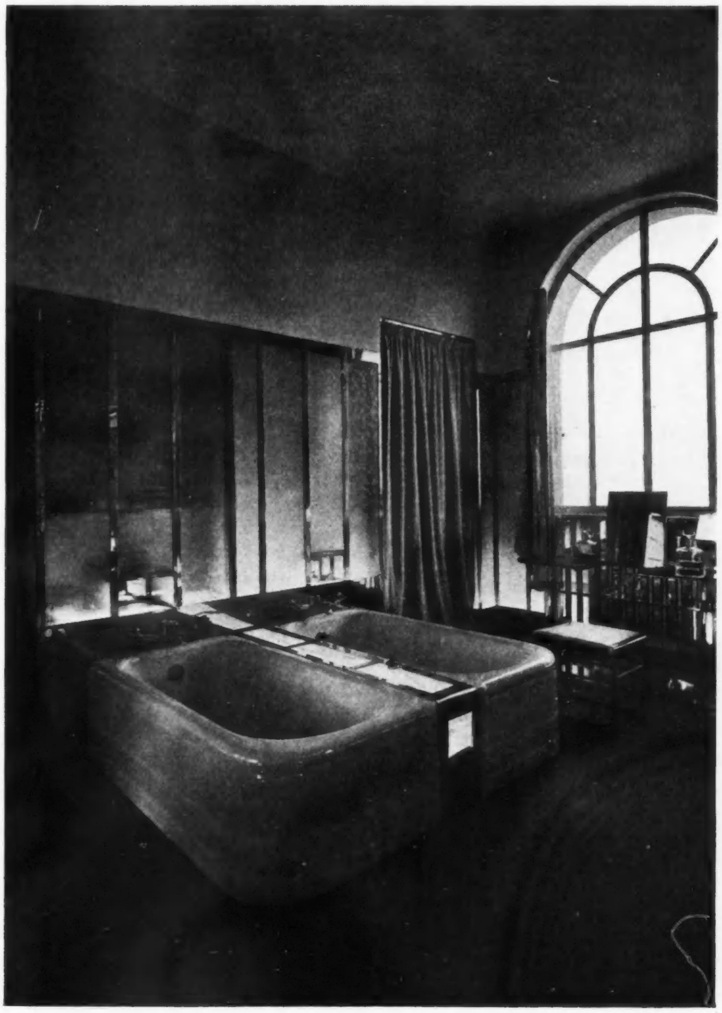
REZ DE CHAUSSÉE

The interior of the house follows the lines of modern simplicity, and reveals such graceful details as silver nickelled banisters on the oak staircase and the studio and dining-room gallery. Walls and ceilings are painted in delicate colours and are not encumbered by cornices and mouldings. The walls of the bathroom illustrated are of glass from floor to ceiling, lighted from behind; its furniture is in glass and green-shaded porcelain.

DESIGNED BY MICHAEL ROSENAUER







LIVERPOOL'S TWO CATHEDRALS

[*By Our Special Correspondent*]

UNIQUELY favoured among cities, Liverpool now has two great cathedrals building. To the Anglican, designed by Sir Giles Gilbert Scott, a Roman Catholic, the Roman Catholic, designed by Sir Edwin Lutyens, a Protestant, was added on Monday last, when the foundation stone was laid by the Archbishop of Liverpool, Dr. Richard Downey, in the presence of two cardinals, forty bishops, over a thousand clergy, the Lord Mayor of Liverpool, the Mayors of seven towns, and a crowd of 30,000.

Sir Edwin, who attended in the red robes of an honorary LL.D. of the University of Liverpool, designed and presented to Dr. Downey the diamond-fitted *culter* with which the latter marked the sign of the cross on the foundation stone's six sides, and stood at his side as the stone was placed within a three-ton block of granite and lowered into the earth.

The two cathedrals will crown the summits of steep hills within a mile of each other. The Anglican already dominates the town and the river. The Catholic will do the same, upon a site claimed to be the best cathedral site in the world. Sir Giles Scott's building rises out of a tree-filled cemetery and is flanked for the most part by terraces of fine houses. Sir Edwin's adjoins the University. Liverpool's Bloomsbury is behind it and the city's Jewish quarter below, down Brownlow Hill. In this neighbourhood also are some good streets—somewhat disfigured by decay.

When the Catholic Cathedral will be finished none can say. Sir Edwin estimates that it could be completed in 20 years if the necessary £3,000,000 were in hand. Its area will be four times as great as St. Paul's, and it will have the biggest dome in the world. It will be easily the largest cathedral in England, and though it will be 24 feet shorter than St. Peter's, Rome, with a nave only just over half as wide, it will exceed St. Peter's in the height of both the nave and the surmounting cross.

Building will begin with the West side and the four crypt churches, the Lady Chapel and the Chapel of the Blessed Sacrament. On the exterior, brick, mostly hand-made in England, and granite will be used, and on the inside travertine. The raised portions of the interior will be of marble and the nave will be floored in cast iron. The lighting will probably be by candles.

Sir Edwin has described his design as "Roman Wrenaissance," with a modern use of rectangular masses. Dr. Downey—who, by the way, has several times been the guest of the Liverpool Architectural Society at their meetings and a speaker at their annual dinner—speaks of the Cathedral as "expressive of the spirit of our own age, yet comparable in design and execution with the great Gothic masterpieces of the twelfth and thirteenth centuries."

Monday's ceremonies mostly took place at the temporary high altar (illustrated in the JOURNAL last week), which is temporary only in the sense that it will, after many years, be superseded by the high altar of the growing Cathedral. On its columns are emblazoned the arms of the bishops of the Suffragan Sees of Hexham and Newcastle, Lancaster, Leeds, Middlesbrough and Salford, in recognition that the cathedral is not for the Archdiocese of Liverpool alone, but for them also and for the whole Northern Province and the Metropolis of Liverpool.

The altar contains 60 tons of steel, and is 90 feet high to the crowning figure of Christ the King. At the four corners, above the columns, are life-size plaster figures of the four Evangelists. The baldachino the columns support is in the form of conventionalized hanging curtains of hemlock wood, painted in a diaper damask pattern, with plated aluminium lining soffits and emblematical medallions and symbolic painted panels at the sides. The altar is protected on three sides by glass screens.

ARCHITECTURE

AS A

TRADE

Arriere-vousure
bombée et reglée auec
vne lunette pratiquee dans
vn berceau

[*By ICONOCLAST*]

2. Charges

[In the introduction to this series of articles, printed in last week's issue, Iconoclast—the chosen pen-name of a well-known architect—defined his standpoint. It is that architects do, in point of fact, work primarily for a living. He frankly reduces architecture to the common business denominator and applies to it the common commercial creed. His object is, of course, to suggest reforms which, in his view, would tend to make the practice of architecture a paying concern. Below he grasps the thorny question of fees. We do not necessarily agree with every point Iconoclast makes; nor may the reader. But all should find his arguments stimulating.—ED., *A.J.*]

THE climax in an orgy of professional vulgarity is the question of money, and the inevitable starting post the scale of charges. During recent months the profession has considered this matter in some detail, and the decision seems to be that the scale should stand. The reason generally put forward for this manifestation of inertia is that although it is admittedly imperfect, it is better than most alternatives; which is really no reason at all.

Let us deal first with the basic fee of 6 per cent., which was raised from the 5 per cent. mark shortly after the war. There was never any real justification for this increased rate, because, at the time it was altered, the cost of building had increased well beyond the cost of living increase, as compared with pre-war levels, and architects were thus receiving an automatic increase of remuneration with no increase in the basic rate.

But, as business men, we are naturally entitled to charge what the public will pay for our wares, so long as we are sensible enough to fix our price list within the limit beyond which our trade is checked on account of price. It seems obvious that in raising the level to 6 per cent. this limit was passed, for there is no doubt that since that time there has been a vast increase in the amount of domestic work of the £1,000 and upwards size carried out without the assistance of an architect, which was almost invariably sought in similar circumstances before the war. Also there has been an equally marked increase in permanent architectural establishments run by estates, commercial firms, and banks, etc., which suggests that in some minds the architect's office is too dear a shop; while other firms, with a more or less continuous flow of jobs, frankly refuse to pay the practising architect more than 5 per cent., a fee which he generally accepts quite profitably.

But, lest this may seem to be quibbling over a paltry 1 per cent., let us admit that the nice round figure of 5 per cent. has a prettier appearance than the unusual 6 per cent. Six per cent. is a vague proportion which seems to be well on the way to one-tenth of the cost, and at the threshold of substantial proportions. Five per cent., on the other hand, is an easily assessed value which the man in the street can reckon at one shilling in the pound. Thought of in such terms, it is not a formidable figure, taking more the flavour of an incidental expense than the addition of a capital outlay. The psychology of this datum is well worth consideration, and architects would be more likely to gain in turnover than lose job by job if this simple reversion to an old-established custom were officially blessed.

Another material for irritation as between client and architect is the question of expenses, an indeterminate item which varies widely between the customs of one architect and another upon identical tasks. The recoverable expenses, faithfully recorded down to the last penny postcard, may be much or little, but as an addition to a percentage charge, understood or agreed, they open the door to a sense of grievance with very little reason in the average case. It would be far better if architects would agree to let their percentage charge cover all incidental and out-of-pocket expenses other than unusually heavy items which any reasonable client would accept. A man could then be definitely told what his inclusive commitment was to be at the outset.

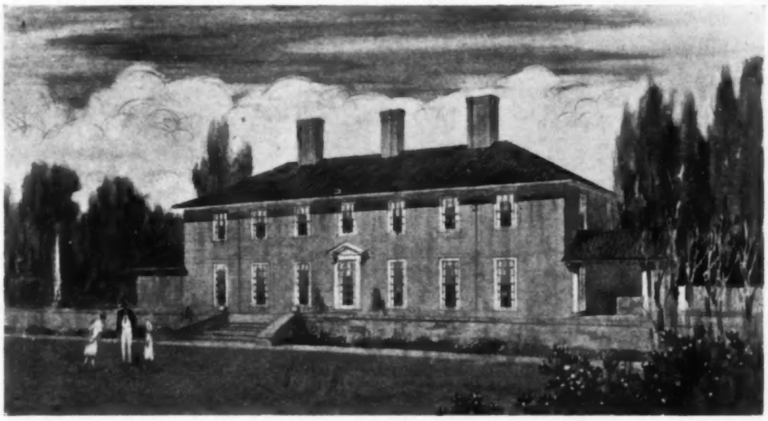
We now turn to the matter of variations and extras. It is surely a defect of the scale system that an architect should stand to profit by an inflated builder's account, or be penalized for economies he may be able to make during the course of the job ; yet this is exactly the effect of the operation of the scale of charges on a percentage basis. Give the average architect his due, and admit that these considerations do not affect his outlook upon the deal ; there is yet material for an undercurrent in the mind of his client, which may to some extent, great or small, colour his reception of his architect's advice. If it were possible to remove this defect the system of charging would be much improved, and it is not so formidable a task as it may appear. A reasonable suggestion would be that, having explored the scope of a contract, an architect would not be buying too big a pig in a poke if he consented to base his fees on the contract price as a lump sum figure which should not be adjusted on settlement figures unless variations exceeding, say, 15 per cent. of the contract had occurred. In this way we should be free to advise convincingly a limited extra outlay or a limited value of economies without appearing to grind any axe but our clients'.

The opponent to change in any old-established custom will probably cite a hypothetical case to show how this will ruin the architect. He will suggest, say, a £10,000 job, upon which there has been a further £1,500 worth of authorized extras. He will say that, under the existing scale, the architect would receive £690 in fees, plus probably £50 in expenses, making a total of £740. Under our present suggestions he would receive £500, or nearly a third less, and our critic will say, not without reason, that the architect of today cannot afford to forgo one-third of his income.

We are, of course, discussing the matter as tradesmen, and it is obvious we are not going to sell our goods for £500 if we can get £740 for them, *unless* our trade is likely to increase under the stimulus. The submission in these notes is that it is likely so to increase. These simple reforms and substantial concessions are just the sort of things that are likely to appeal to business men if carried out and made known, and there are few architects who would not prefer to build two jobs for a £500 fee each than one similar job for a £750 fee. There would be a certain decrease in the number of architectural salaried establishments if the cost of architecture were thus reduced to moderate and simple terms.

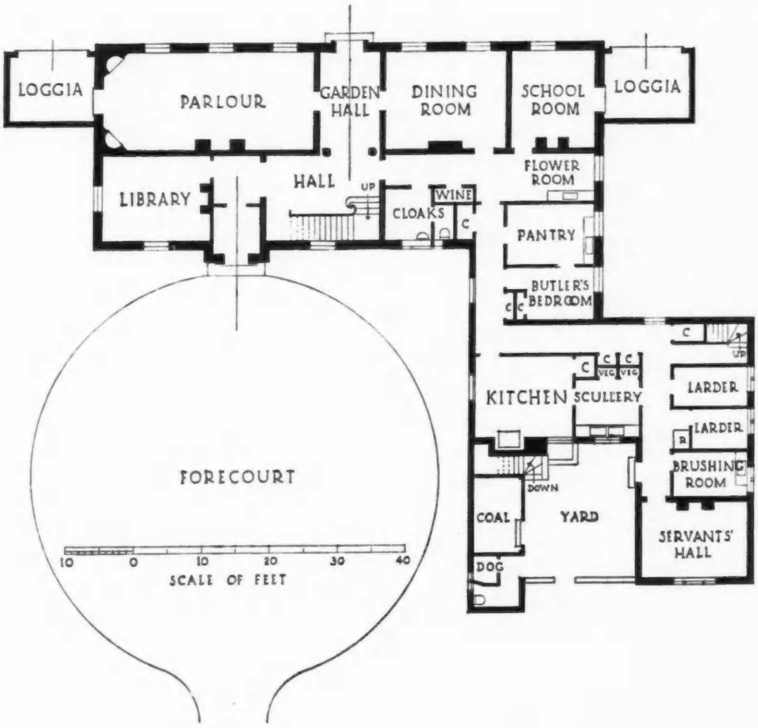
Here, at any rate, is a good trading move, suggested not without considerable thought, which is calculated to give a fresh impetus to a more general use of the architect's shop.

A HOUSE AT WILLINGDON

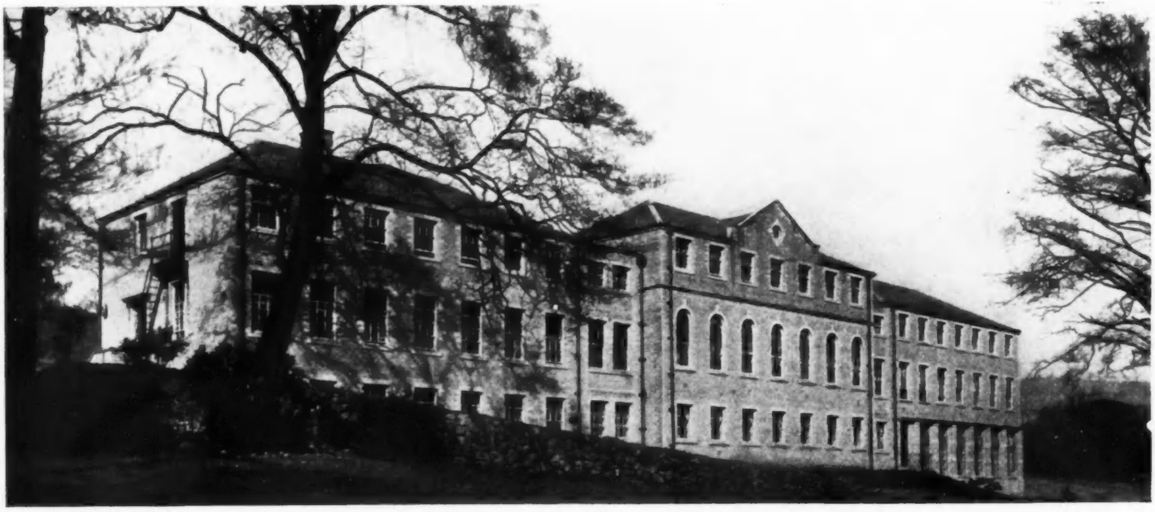


DESIGNED BY E. GUY DAWBER

"Ratton Wood," Willingdon, Sussex, of which a perspective drawing by P. D. Hepworth is reproduced above, is now in course of construction. The walls are carried out in old Sussex stocks from Turner's Hill ; and the roof is covered with Italian pipe tiles. The principal rooms occur on the garden front, the three windows seen to the right of the central door lighting the parlour ; they are balanced by those of a dining room and a schoolroom. The main entrance, with staircase hall and library, is on the other front of the house ; the service quarters are isolated in a wing of their own.



RISHWORTH SCHOOL, HALIFAX, YORKS. :



Rishworth School was founded in 1724. It is situated upon the eastern slope of the Pennine Range, at the foot of the moorland. The old buildings, dating from 1828, have accommodation for 84 boys, and the recent additions increase this to 140. The new building is detached from the old, the space between giving access to the old and new quadrangles on the westerly side.

The external walls are treated similarly to the old walls and are faced with local delph-dressed sandstone, with dressings of white ashlar from the Clock Face Quarry nearby; the roofs are covered with blue Welsh slates and the woodwork generally is of red deal. The floors are of hollow block reinforced concrete, finished with composition to the dining rooms and dormitories, granite to the corridors and offices, and wooden blocks to the classrooms, laboratory, etc.

The necessary extra height of the gymnasium is obtained by the falling site, and the larger windows thereby obtained are fitted with steel casements opening the whole area, thus forming an open-air gymnasium for summer time. The floor is of narrow maple boards upon wooden joists. All other windows are sliding sashes of wood. The assembly hall is panelled to a height of 7 ft. with Japanese oak, a gift from the old boys in memory of a former head master.

The work was carried out by separate tradesmen at a cost of £14,550, exclusive of furnishing; the total cost is about £20,000.

LETTERS
FROM
READERS

R. S. REDWOOD, A.R.I.B.A. (Hon. Secretary, Bristol Society of Architects)

W. H. ANSELL, F.R.I.B.A. (Chairman, Statutory Board of Architectural Education)

J. B. D. (F.R.I.B.A. Retired)

T. RUELEIGH MODERN

JULIUS P. HARDACRE

Architects' (Registration) Act, 1931

SIR,—The leading article in the JOURNAL for May 24, entitled, "Registration: Do it now," urges upon architects the advisibility of making application for Registration before the end of this year. One argument advanced is that after December 31 applicants will be obliged to pass an examination approved by the Statutory Board of Architectural Education.

May I direct your readers' attention to a statement upon the Act made by the Secretary of the R.I.B.A. Registration Committee published in *The R.I.B.A. Journal* for August 8 1931, and previously in *The Times* for August 4, 1931? This statement contains the following paragraph:—

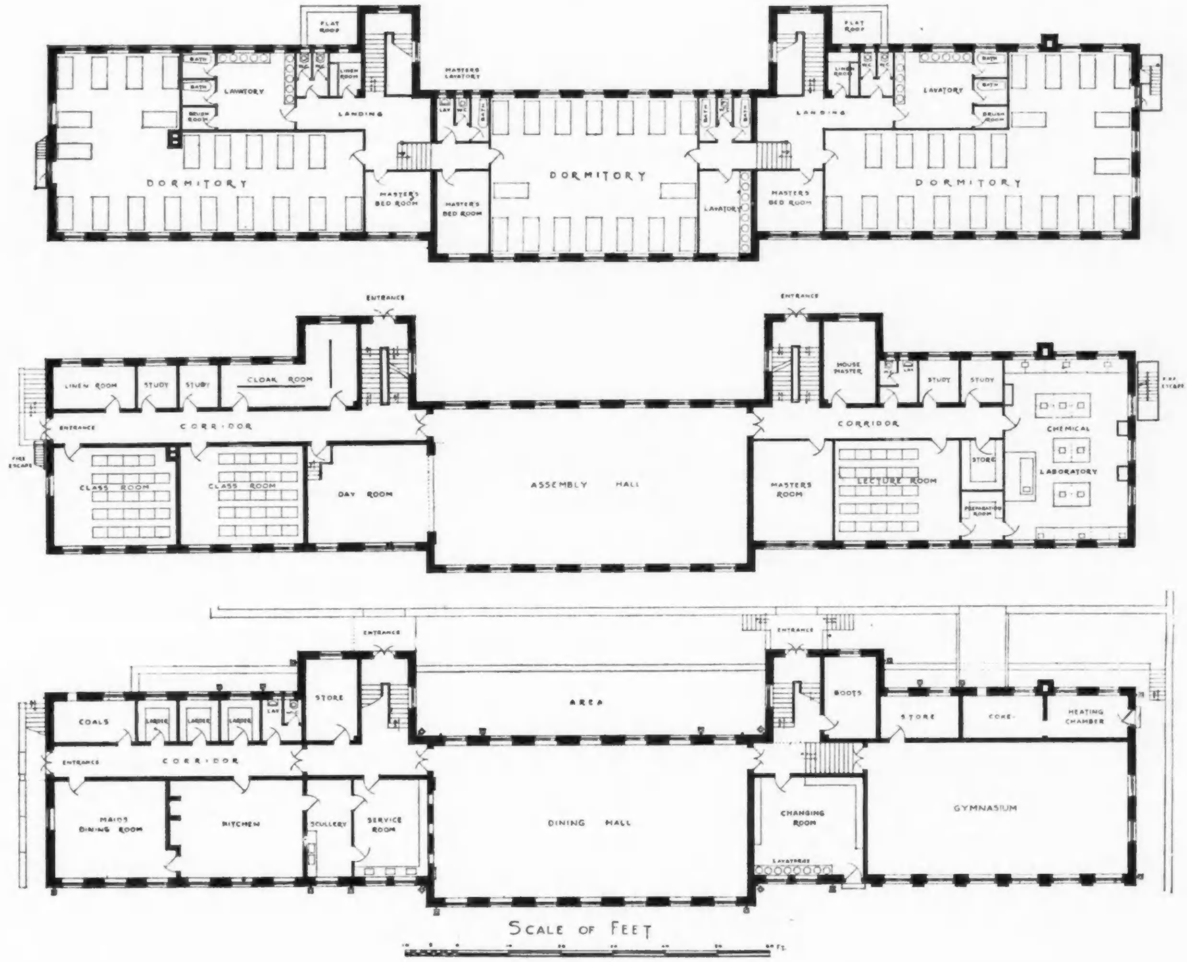
"The nature of the Act is permissive, and no one need seek registration unless he desires to do so, as the title 'Architect' may continue to be used by any person. The Act restricts the title 'Registered Architect' to registered persons, but its use by them is not compulsory." These words are correct in their suggestion that there is no connection between the voluntary Register set up by the Act and the legal status of a qualified architect.

Moreover, in a recent statement by the Statutory Board of Architectural Education, it is made clear that the recognition of Fellows, Associates and Licentiates of the R.I.B.A. will be retrospective. Thus, if a now qualified member of the Institute chooses to delay his application for registration until 1934 his Institute status will still gain his admission to the Register.

Your article proceeds to urge the wider claims of Registration and states that "as time goes on, the practice of architecture will be almost entirely in the hands of properly trained men, and that in measure as the idea of registration penetrates the common intelligence the increasing supply of trained men will find a widening sphere of practice." But the suggestion that registration will increase professional prestige is erroneous, since Section 17 of the Act provides that commercial bodies, corporate firms and partnerships may carry on the business of architecture under the style or title of "registered architect" by the simple expedient of employing the managing services of a registered person (of either sex).

So far, therefore, from enhancing the status of a professional architect, registration and its corollary, the use of the title "registered architect," is likely to be misleading and derogatory, unless

NEW WING: BY WALSH AND MADDOCK


FLAT ROOF
BATH
LAVATORY
BRUSH ROOM
LINEN ROOM
LANDING
MASTERS LAVATORY
DORMITORY
MASTERS BED ROOM
LAVATORY
ENTRANCE
LINEN ROOM
STUDY
CLOAK ROOM
CORRIDOR
CLASS ROOM
DAY ROOM
ASSEMBLY HALL
HOUSE MASTER
MASTERS ROOM
LECTURE ROOM
STORE
CHEMICAL LABORATORY
PREPARATION ROOM
FIRE ESCAPE
COALS
LARDER
AREA
BOOTS
COKE
HEATING CHAMBER
MAIDS DINING ROOM
KITCHEN
SCULLERY
SERVICE ROOM
DINING HALL
CHANGING ROOM
GYMNASIUM
SCALE OF FEET

accompanied by a necessary but undignified disclaimer of commercial connection.

R. S. REDWOOD

Mr. W. H. Ansell, Chairman of the Statutory Board of Architectural Education, writes:

SIR,—The statement in the fourth paragraph of the letter from the Hon. Secretary of the Bristol Society of Architects, which, by your courtesy, I have been allowed to see before publication, is incorrect. The only statement ever issued by the Statutory Board of Architectural Education on the subject of approved examinations gave a list of the examinations recognized as a qualification for registration under Section 6 (1) (c) of the Act and announced that the recognition of these examinations would be retrospective.

The R.I.B.A. Final and Special Final Examinations and certain examinations at the Schools of Architecture recognized for exemption from the R.I.B.A. Final Examination are included in the list, but Fellows, Associates and Licentiates of the R.I.B.A. will not, after December 31, 1933, be eligible for registration unless they have passed or do pass one of the approved examinations. Under the provisions of the Act R.I.B.A. status alone does not and will not gain anyone admission to the Register.

W. H. ANSELL

Concert Hall at Colwyn Bay

SIR,—You may have heard that, about a week or two ago, the concert hall at the end of the pier at Colwyn Bay was destroyed by fire.

It is reported that messages of sympathy from many quarters have been received by the Urban District Council, but to my mind (except for the Insurance Company) this is not an occasion for sympathy but for congratulation.

For about 35 years this vulgar erection has been a blatant eyesore in the quondam beautiful bay.

It was destroyed by fire in 1922, and at once rebuilt, so this is the second fire they have had.

Evidently the thing was abhorrent to nature.

I hear that steps are being taken again to rebuild it, but I hope that wiser counsels may prevail, and if they want a concert hall in Colwyn they will build one in its proper place on the shore and not on grimcrack stilts in the midst of the sea.

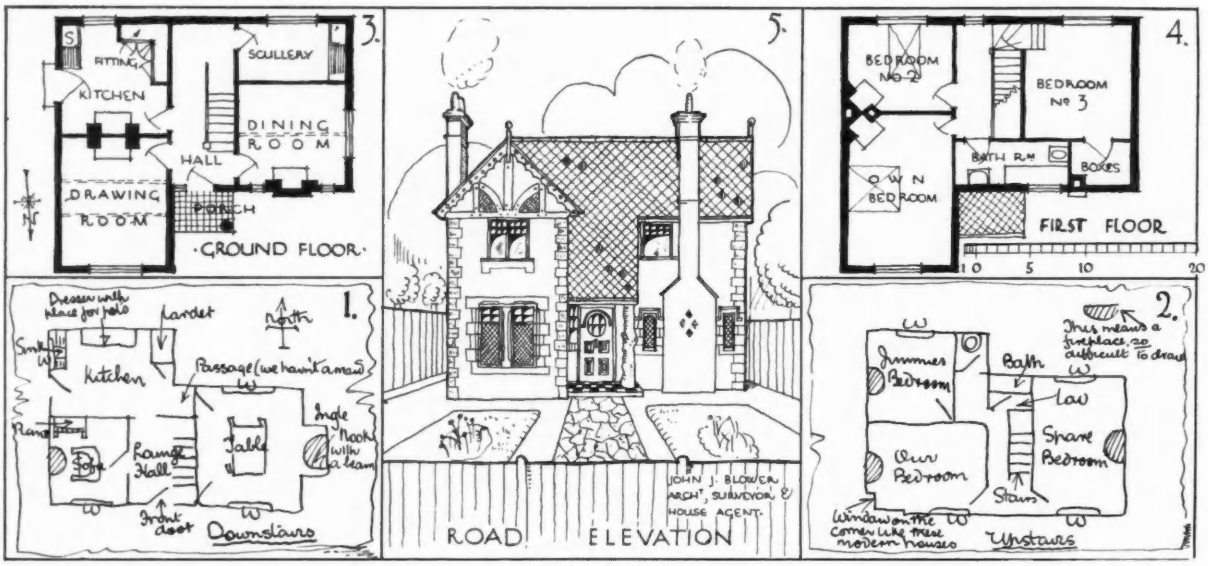
I should be interested to know what you think about it.

J. B. D.

Inigo Jones's Headpiece

SIR,—It has been suggested that Inigo Jones is out of date. I agree. And what is more, I have gone to the trouble of offering up for general approval alternatives more in keeping,

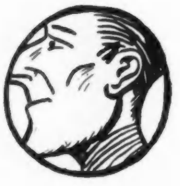
A HOUSE BY JOHN J. BLOWER


3.
S
FITTING
KITCHEN
SCULLERY
DINING ROOM
HALL
DRAWING ROOM
PORCH
N
·GROUND FLOOR·
5.
JOHN J. BLOWER ARCH^T, SURVEYOR & HOUSE AGENT.
ROAD ELEVATION
4.
BEDROOM No 2
BEDROOM No 3
OWN BEDROOM
BATH R.M
BOXES
FIRST FLOOR
10 5 10 20
1.
Dresser with place for pots
Larder
North
Sink
W
Kitchen
Passage (we haven't a maid)
W
Range
Sofa
Lounge Hall
Table
Ingle Nook with a beam
W
W
Front door
Downstairs
2.
This means a fireplace, so difficult to draw
W
Jimmies Bedroom
Bath
W
Lav
Spare Bedroom
Our Bedroom
Stairs
Window on the corner like these modern houses
W
W
Upstairs

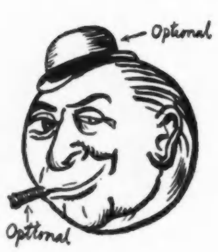
A correspondent, in a letter on this page, suggests that this house is one of the architect's "greater triumphs." Figs. 1 and 2 show the client's sketches of her requirements; and Figs. 3, 4 and 5 are the architect's ground and first floor plans, and the main elevation of the house as built.

as Mr. Elsley remarks, with the dynamic cheerfulness of your JOURNAL which I feel sure, Sir, must be its own reward.

The first is intended to portray a very keen modernist in the act of thinking very functionally, but on looking at it again it reminds me of Jack Hulbert, and I didn't intend it to be modern in that way.



I have therefore in the second roundel tried to concentrate upon the note of cheerfulness, only to find, as you will possibly agree, that this quality seems to typify a less distinguished type of man than I had originally in mind.


Optional
Optional

I fear, Sir, that I have failed in what I set out to do, but, remembering this to have been the lot of men more brilliant than myself, I submit my honest effort for the approval of yourself and posterity, that will idly turn these pages in a more aluminium age than this.

T. RUELEIGH MODERN

The Work of John J. Blower

SIR,—I have noted with increasingly great interest the appearance in your JOURNAL of examples of the work of John J. Blower.

As an intimate friend and erstwhile colleague of this eminent architect, may I bring to the notice of your readers one of his greater triumphs?

I enclose with this letter copies of various drawings which will, I am sure, amply illustrate the ease and skill with which this genius overcame an enormous problem in domestic house design. I have numbered the plans for greater clarity.

The drawings 1 and 2 are copies of sketches sent to Mr. Blower by a lady of wealth and position who instructed him to draw out the plans of her proposed villa for the builders. Mr. Blower, having scrutinized these, found them lacking in taste and refinement and proceeded to redesign the house on a labour-saving basis, at the same time producing an elevation in the neo-Tudor style.

The fire of his genius and unremitting labour resulted in the truly noble design shown on drawings 3, 4 and 5 which will speak for themselves and need no praise from me, except to draw attention to the masterly way in which the Rustic order of the porch has been combined with the modern decorative feature on the chimney stack.

At one time I feared that the publication of this design might tempt unscrupulous members of the profession. I now know that no right-minded architect would ever copy a design which so definitely bears the hall-mark of that master, John J. Blower.

JULIUS P. HARDACRE

IN PARLIAMENT

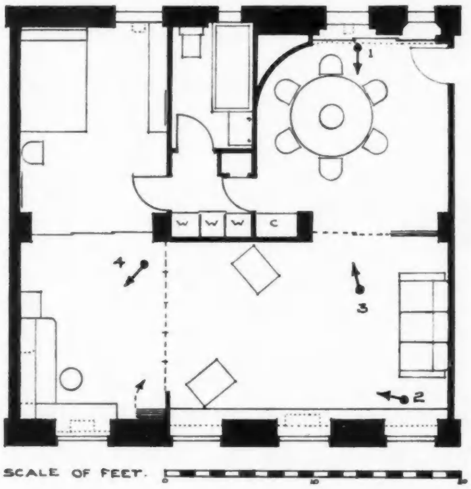
[BY OUR SPECIAL REPRESENTATIVE]

Prices of Building Materials

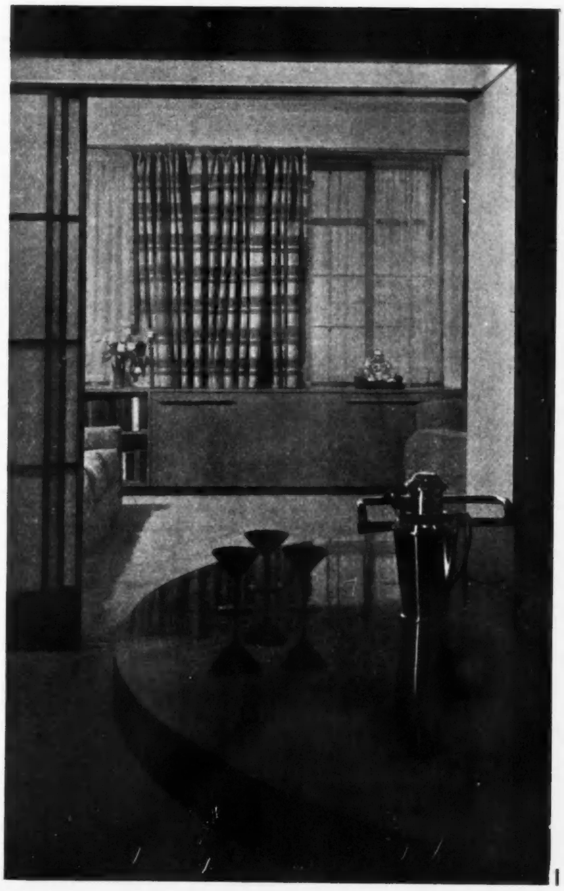
MR. Hicks asked the Minister of Health whether, having regard to the increased activity in the erection of working-class dwellings which he expected to ensue from the passing of recent legislation, he had conferred, or would confer, with the President of the Board of Trade, with a view to having an inquiry made, by means of the existing inter-departmental committee on the supply and prices of building materials or by other appropriate means, as to the adequacy of supplies available of materials likely to be required in the near future, to the end that there might be no undue delay in any schemes which might provide employment for the building trade operatives now unemployed.

Sir Hilton Young said at present he had no reason to suppose that such a special inquiry as was suggested would be useful. He had already arranged that the Committee on Prices of Building Materials should keep him closely informed of any changes in the conditions in the building trade.

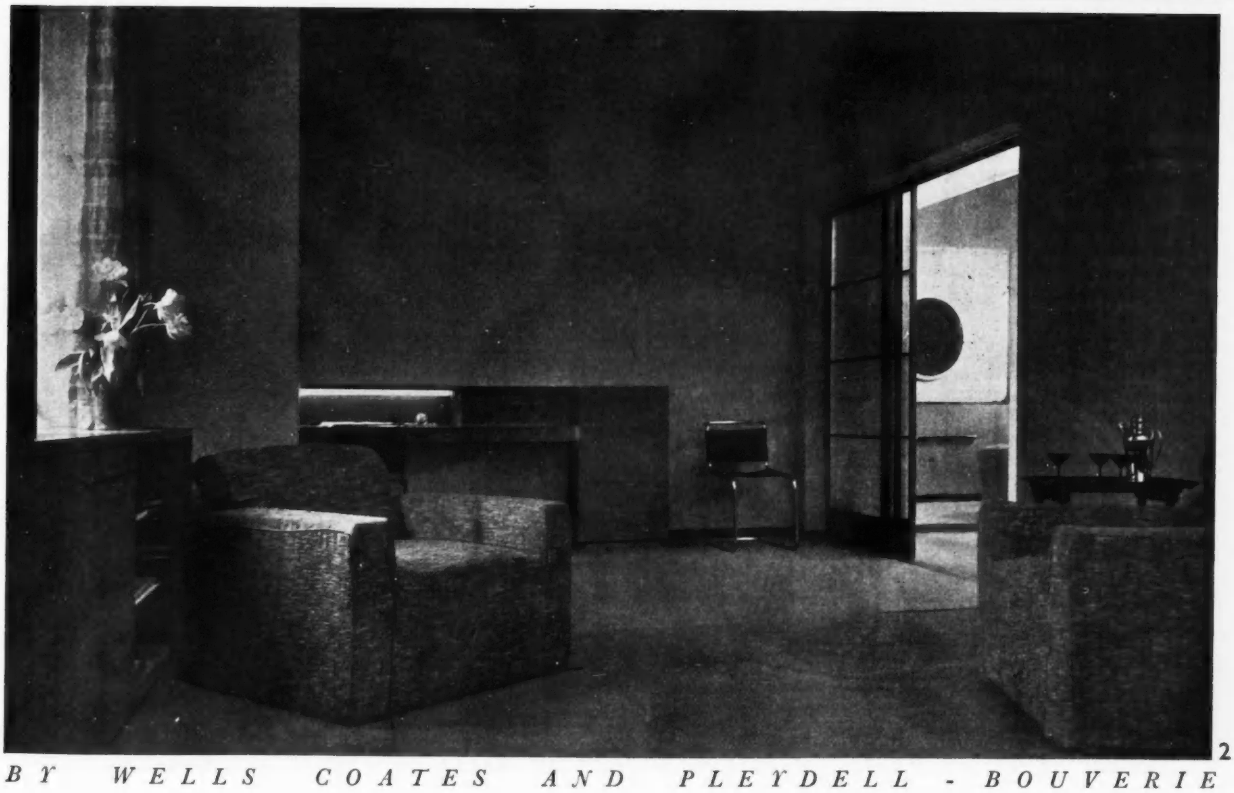
A RECONSTRUCTED SERVICE FLAT



The whole area of the four rooms has been treated as one, divisible at will by movable screens. The view-points of the photographs are indicated by arrows on the plan. View (1) is taken looking from the dining room, through sliding screens of cedar-wood and shantung silk, to the living room proper; the mahogany panel under the window drops to reveal a model electric railway. View (3), overleaf, is of the dining room table; it is veneered with English burr walnut, has a central illuminated panel of green rough-cast glass, and a bronze-faced pedestal. The room has tubular steel chairs, finished in polished and lacquered copper, with green hide seats and backs. The screen behind is illuminated. View (2) shows the study, with the sliding screens to the bedroom visible on the right. Fitted wardrobes (W on the plan) are built into the reconstructed central wall.



1

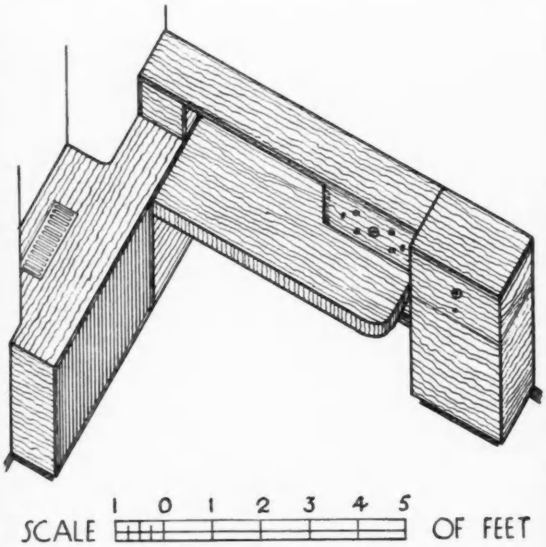


2

BY WELLS COATES AND PLEYDELL-BOUVERIE

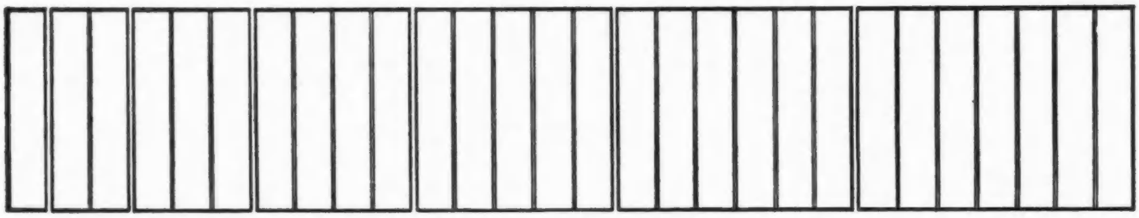
A RECONSTRUCTED SERVICE FLAT: BY

3

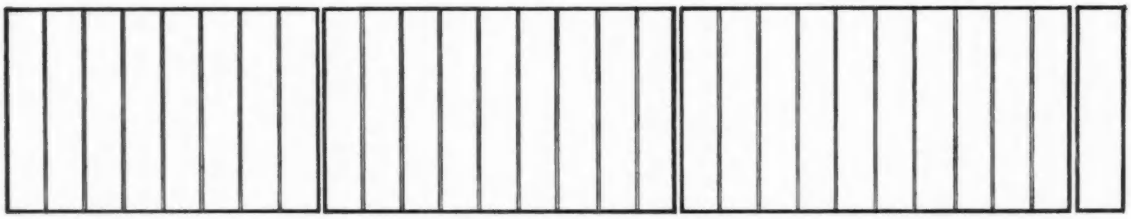


View (3) is dealt with in the notes on the previous page.

View (4) and the drawings are of the composite study fitting in flashed sapele mahogany. It has a filing section with tambour front, the divisions being arranged in arithmetical progression from one to ten sub-divisions in two shelves, as shown below; a cantilevered desk with tube lighting, fitted with drawers, locked cupboard and wireless set—the loudspeaker is built into the wall above W (see plan); and self-changing gramophone cabinet, with record storage under.



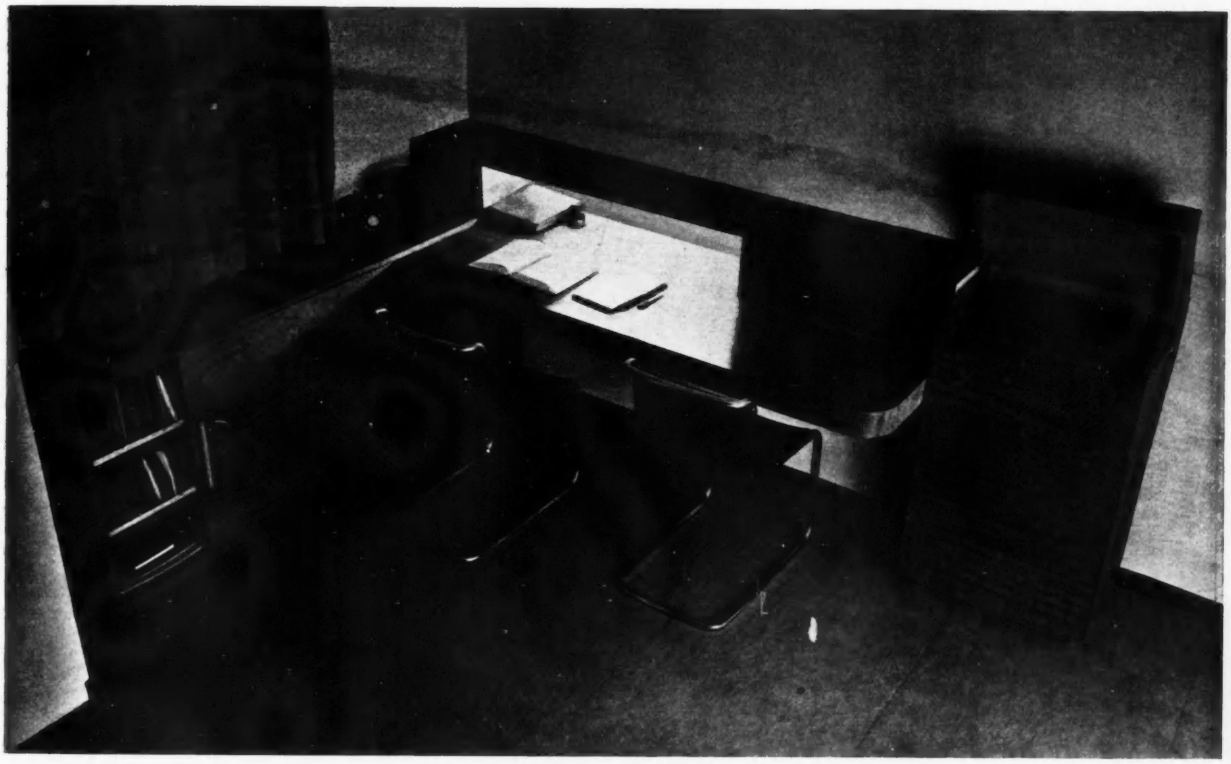
FILING CABINET
TOP SHELF LAYOUT



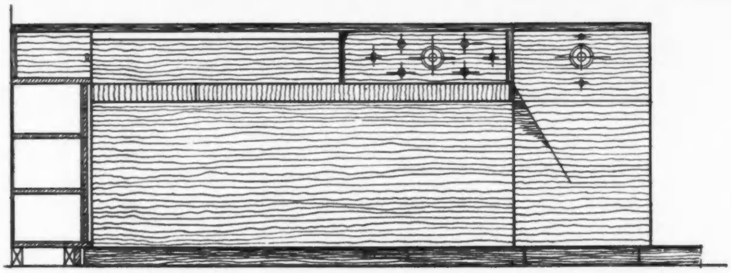
FILING CABINET
LOWER SHELF LAYOUT

SCALE 1 0 1 2 OF FEET

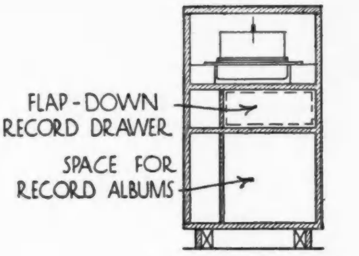
WELLS COATES AND PLEYDELL-BOUVERIE



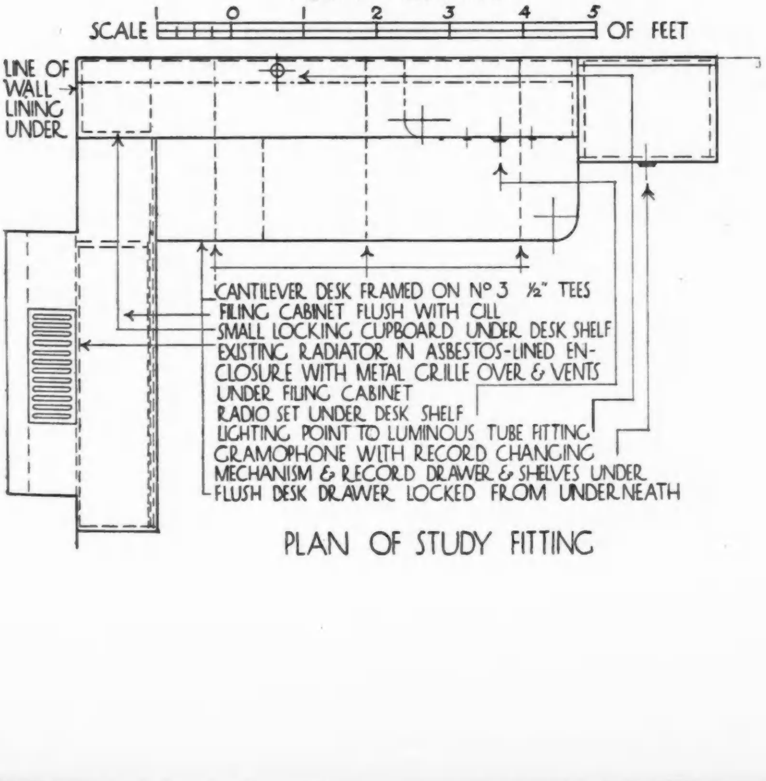
4



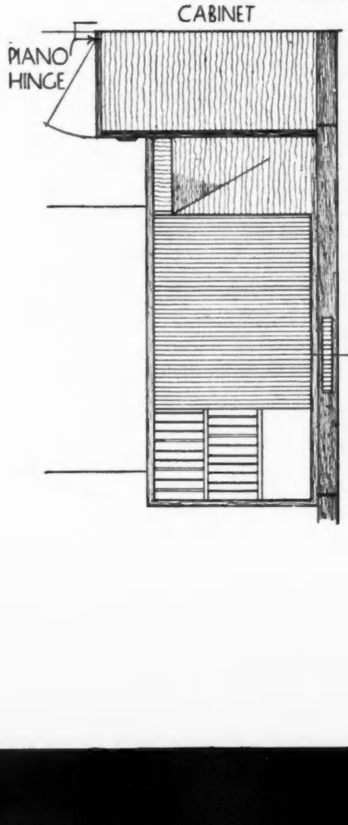
FRONT ELEVATION


FLAP-DOWN RECORD DRAWER
SPACE FOR RECORD ALBUMS

GRAMOPHONE
SECTION THROUGH CABINET

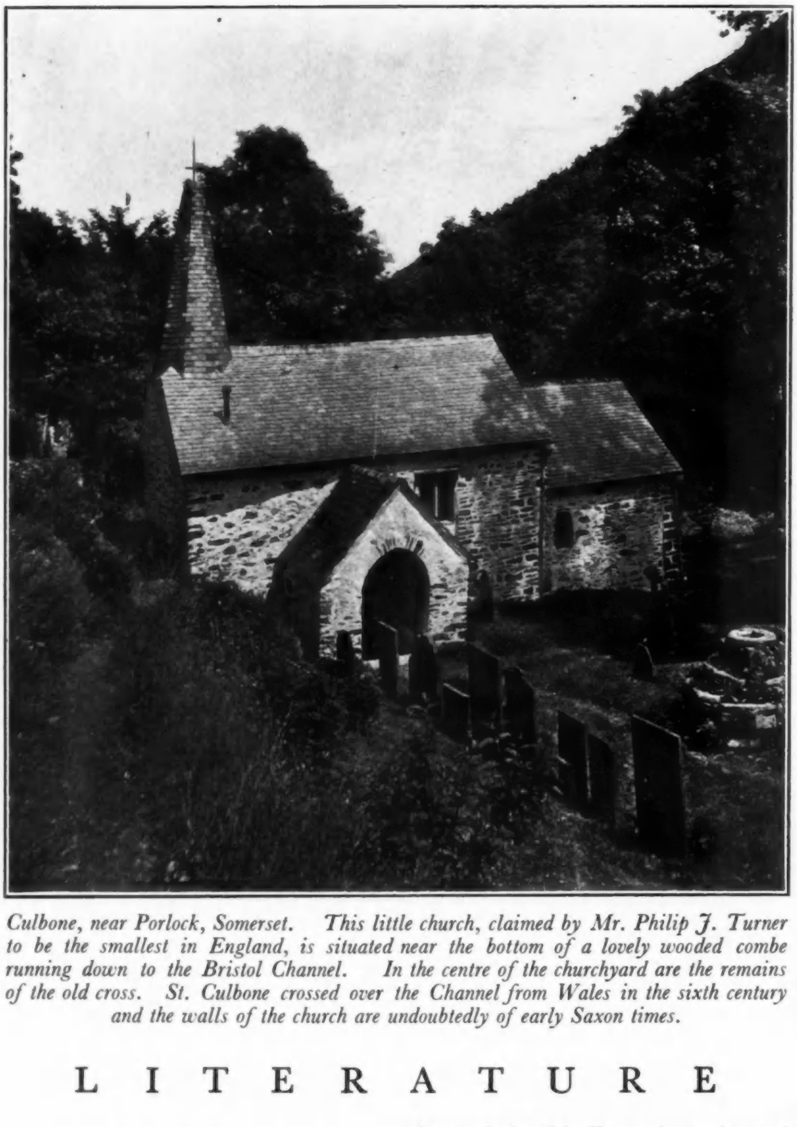

SCALE 1 0 1 2 3 4 5 OF FEET
LINE OF WALL LINING UNDER
CANTILEVER DESK FRAMED ON Nº 3 ½" TEES
FILING CABINET FLUSH WITH CILL
SMALL LOCKING CUPBOARD UNDER DESK SHELF
EXISTING RADIATOR IN ASBESTOS-LINED ENCLOSURE WITH METAL GRILLE OVER & VENTS UNDER FILING CABINET
RADIO SET UNDER DESK SHELF
LIGHTING POINT TO LUMINOUS TUBE FITTING
GRAMOPHONE WITH RECORD CHANGING MECHANISM & RECORD DRAWER & SHELVES UNDER
FLUSH DESK DRAWER LOCKED FROM UNDERNEATH

PLAN OF STUDY FITTING


PIANO HINGE

ELEVATION OF FILING CABINET ETC
SHOWING ROLLING & SLIDING DOOR PARTLY OPEN

ENGLAND'S SMALLEST CHURCH?



Culbone, near Porlock, Somerset. This little church, claimed by Mr. Philip J. Turner to be the smallest in England, is situated near the bottom of a lovely wooded combe running down to the Bristol Channel. In the centre of the churchyard are the remains of the old cross. St. Culbone crossed over the Channel from Wales in the sixth century and the walls of the church are undoubtedly of early Saxon times.

LITERATURE

PARISH CHURCHES

Parish Churches of Rural England. By Philip J. Turner, F.R.I.B.A., F.R.A.I.C. McGill University Publications (Series XIII, Art and Architecture.) Reprinted from *The Canadian Geographical Journal*, December, 1931.

MR. PHILIP J. TURNER strikes a welcome note on the first page of his brochure *Parish Churches of Rural England.* While in no way minimizing the claims of the great churches, where " the craftsman was given every opportunity to rise to the heights of his genius," he stresses the loss of those who overlook the many beautiful village churches, which have a story all their own, and tell of the lives and customs of the people who created them.

It is just this appreciation of architecture in its relation to human life that makes the charm of what Mr. Turner has written. At the same time his technical knowledge is evident, and the success of his work is enhanced by excellent photographs well selected, and by his clear and readable style.

Selection is difficult, but special interest attaches to the church of Culbone, Dorset, said to be the smallest in England ; Lavenham, with the finest—but not necessarily, to all, the most attractive—tower in the country ; St. Mary Magdalene's, Launceston, impressive, and a " good example " of several features, desirable and otherwise ; Beaminster, typical of the parish church dominating the mediæval village ; and Sandon, Essex, showing how effectively bricks could be used where stone was not to be had.

Mr. Turner rightly calls attention to the importance of roofs as an unrivalled feature of English churches, and his lament concerning the depredations of the death watch beetle on the old oak of which these roofs are frequently made should help to enlist practical help for parishes whose poverty prevents them from dealing with this matter themselves. The author has much that is interesting to say about bells, and records the astounding feat accomplished at Hetonstall, near Halifax, in 1927, when the " Oxford Treble Bob Major " was made without a break in ten hours and fifty-one minutes by ringers standing in one position throughout without food or drink of any kind.

Perhaps the author assumes rather too readily that the usual explanation of the term " squint " is always the right one ; and here and there—although rarely—his references to history seem too generalized as to fact and not presented in the clearest way. Such is the statement that French villagers loved to worship at " the various chapels that lined their Cathedrals," or, again, the reference to the respective parts played in church building by bishops, abbots, the common people and manorial lords.

But these are small points, scarcely touching the main purpose of the author, to whom we are indebted, if only for a fresh interest in native beauties that we are often apt to overlook.

FRANCIS DAY

THE MUNICIPAL DIRECTORY

The Empire Municipal Directory and Year Book, 1933-1934. London : The Sanitary Publishing Co., Ltd. Price 12s. 6d. net.

THIS directory—the fifty-first—although published at a time when many Councils are in a state of flux, awaiting absorption, reformation or absolute dissolution, maintains the high standard set by its predecessors.

The editorial section is as full and complete as hitherto, with articles dealing with progress and developments in connection with highway construction, housing and town planning, swimming baths, concrete and cement, and public lighting.

EMPIRE FORESTRY HANDBOOK

The Empire Forestry Handbook for 1933. Edited by W. A. Robertson, F.R.G.S. London : The Empire Forestry Association. Price 5s. net. (Free to members.)

THIS handbook aims at presenting in a condensed form essential information on the forests of the Empire. Under the head of general information the section dealing with the forest statistics of the Empire, in area, volume of standing timber, ownership, production, consumption, imports and exports, has been brought up to date from official returns. These statistics are of necessity only approximate, but they provide the most complete statement available anywhere, and furnish a balance sheet of the Empire's forest resources.

Of special interest to the timber trade, the architect and the contractor is the revised list of Trade Names of Empire Timbers. In this, formidable confusion of local trade and vernacular names has been reduced to order by sorting out and tying these local names to the actual botanical species to which they belong. At the same time, with the approval of some of the leading timber traders, a definite trade name has been allotted to the botanical species, so that if used by the trade there should be little chance of wrong species being shipped against an order. As an appendix to the list a reference is given to the various public and other buildings where various particular Empire timbers can be seen in use.

PRICING AND COSTING

Pricing and Costing for Buildings and Public Works. By B. Price Davies. Second Edition. Cardiff Western Mail and Echo, Ltd. Price 21s. net.

THE second edition of this volume, by the City Engineer and Surveyor, Bangor, North Wales, has just been issued. It is similar to its predecessor, with the exception of a few minor alterations, which means that the information, covering a very wide field, is convincingly set out in comparatively small space.

The book comprises three main sections, namely: pricing; costing; and cost results of buildings and public works. There are also the author's general introduction, explaining his objects and system, an index, and a "buyers' directory."

It should be noted that an earlier companion work by the same author dealt with estimating, and of that the present work is a continuation in idea.

PUNCH SUMMER NUMBER

MR. *Punch's* Summer Number seems to be unusually funny, perhaps because the pictures by his troupe of gifted artists, plain and coloured (the pictures that is), show little trace of their having bothered about architecture. A blow is, however, struck in the cause of rural preservation. A tramp, dining in a bosky retreat by the side of a main road, is made to say to his pal: "Ain't it the limit, Ginger? As though they couldn't find another place to put that bloomin' ugly 'oarding. . . ." The said hoarding advertises British sausages, and the tramp is pig-faced.

Publications Received

West Essex: A Survey, with Some Proposals for its Development. By Professor S. D. Adshead, F.R.I.B.A. Copies obtainable from the Hon. Secretary of the West Essex Joint Advisory Town Planning Committee, Council Offices, Woodford Green. Price 5s. net.

Electric Circuits Simply Explained. By F. H. Taylor. London: Percival Marshall & Co., Ltd. Price 2s. net.

Swedish Art. By Johnny Roosval. Oxford University Press. Price 65s. 6d.

Town and Country Planning Act. By Reginald Poole. Liverpool University Press. Price 3s. 6d. net.

A Chemistry Course for Painters and Decorators. By P. F. R. Venables, PH.D., B.SC., and H. C. Utley, F.R.I.B.A. London: Sir Isaac Pitman and Sons, Ltd., Price 3s. 6d. net.

Transition Zoning. By Professor Arthur C. Comey. Harvard University Press. Price $2.50.

The Architecture of Shops. By A. Trystan Edwards, F.R.I.B.A. London: Chapman and Hall, Ltd. Price 21s. net.

WHAT IS TO BE DONE ABOUT

THIS?

[In this week's article statistics of building costs are closely scrutinized. The factors that are open to variation are identified. Cheaper building is shown largely to depend on two: lower rates of interest; and more economical construction. The second is pre-eminently the province of the architect, and it is to solutions of this pressing problem that the profession must bend all its energies. To explore available means to this end will be the object of forthcoming contributions to this discussion.

The following have already appeared:—(March 29) 1. The Speculative Builder, by Penates; (April 5) 2. The Speculative Architect, by Edwin Gunn; (April 12) 3. Building Without Guidance, by Stanley C. Ramsey; (April 19) 4. What the Public Want, by Edwin Gunn; (April 26) 5. The Housing Problem, by Percy Morris; (May 3) 6. The Building Centre Competition, by E. Maxwell Fry; (May 10 and 17) 7 and 8. How the Architect can use the Building Societies, by H. C. Burdett; (May 24) 9. The Housing Act, by our Parliamentary Correspondent; (June 1) 10. Building Society Finance, by Penates.—ED., *A.J.*]

11. Factors in Cost

[*By L. J. GOLLOP*]

B.Sc. (Econ.) F.S.S.

ANY housing policy, any pronouncement on housing, turns ultimately on the question of cost. That is the fundamental problem—and a most difficult one to tackle. The chief difficulty arises from the diversified nature of house building.

In the first place, there is very considerable variation in the accommodation provided, which has obvious reactions on cost. This does not merely mean that the total cost varies with the accommodation, but that the proportion of labour cost, material cost, etc., to total cost also alters.

In the second place, there is considerable variation in the amenities provided. This goes far beyond the question of the cost of fittings. Whether there is a bathroom or not, or whether it is separate or not; whether the houses are built twelve or twenty to the acre—these and many other questions mean variations in cost.

Thirdly, methods of construction vary. Thus a house on one side of a road may require foundations quite different from those on the other side.

All this is very obvious, but it means that the question of housing costs must be approached with caution, and that it can only be tackled by means of averages. The costs involved in building roughly the same type of house in different parts of the country will vary so much that it is impossible to take any particular example as typical of the whole. All that can be done is to take rough averages for the building of a certain type of house. These averages should not be interpreted too literally, and will not fit any given case. They are indications rather than measurements of the magnitudes concerned.

The costs involved in the building and maintenance of a given type of house may be divided into four parts—building costs, land costs, interest charges and loan redemption, and repairs and maintenance charges.

With regard to building costs, for non-parlour houses, it may be taken that, on the average and with the qualifications mentioned above, they are made up as follows:—

Labour	35%
Materials	55%
Overhead charges, professional fees, etc.	10%

In a recent leading article in this JOURNAL, it was laid down that building and construction costs in general are made up of:—

Labour	40%
Materials	50%
Overheads, etc.	10%

Housing, of course, employs less labour on the site, and uses more materials, than the average building or construction work, so that the figures here given fit in with those for building and construction in general.

For a house the building cost of which is £300, that is to say, £105 is spent on labour employed on the site, £165 on materials, and £30 goes in overhead charges. This last item is probably put rather too high, and must be taken to include some element of profit.

With regard to the further analysis of the various elements of cost, little can be done, having regard to the very considerable variations of the various items. Mr. Coppock, General Secretary of the National Federation of Building Trades Operatives, has, however, put forward the following figures as being the typical allocation of a "labour unit" of £100 :—

	£
Excavator, concretor and drainer ..	9
Bricklayer and his labourer	30
Carpenter and joiner	27
Slater and his labourer	3
Plasterer and his labourer	14
Plumber and his mate	8
Painter and glazier	9
	£100

With regard to land costs, little can be said. Houses with a building cost of about £300 are probably built overwhelmingly at between sixteen and twenty to the acre, on the average, but the price of the land itself varies enormously. The Ministry of Health, however, adds to the contract price for building houses of this type £70 for land, roads and sewers. If we take this figure, it brings the total cost of our house up to £370.

In order to deduce the price at which such a house will be sold in the market, it is necessary to add an amount for the profit of the builder. To assess the actual amount of profit received by builders is virtually impossible. There are no data to go on, and the amount varies greatly according to circumstances. On an arbitrary assumption, however, we may assume that a profit of £30 is made and that the selling value of our house is £400. This allowance for profit is probably somewhat extreme, particularly since the allowance for overhead costs included an element of profit. We may therefore state the selling price of a house the building cost of which is £300 as about £380-£400.

We now come to interest and loan charges and allowances for repairs. Here we may leave our assumptions and deal with actual figures, since the Committee on Local Expenditure has examined this problem on the basis of a house costing £380. The total amount of loan charges on a sixty-year basis for a house costing £380 would be £17 per annum at 4 per cent., £16 at 3¾ per cent., and £15 at 3½ per cent. The weekly equivalent for the purpose of arriving at the rent is, to the nearest penny, 6s. 6d. at 4 per cent., 6s. 3d. at 3¾ per cent., and 5s. 9d. at 3½ per cent. To this must be added an allowance for repairs, maintenance, etc. The figure taken by the Committee for this allowance is £5 10s. per annum.

We therefore get the following table :

All-in cost of house ..	£380		
Rate of interest	4%	3¾%	3½%
Total amount of loan charges	£17	£16	£15
Weekly equivalent ..	6/6	6/2	5/9
Add for repairs, etc. ..	2/1	2/1	2/1
Economic rent	8/7	8/3	7/10

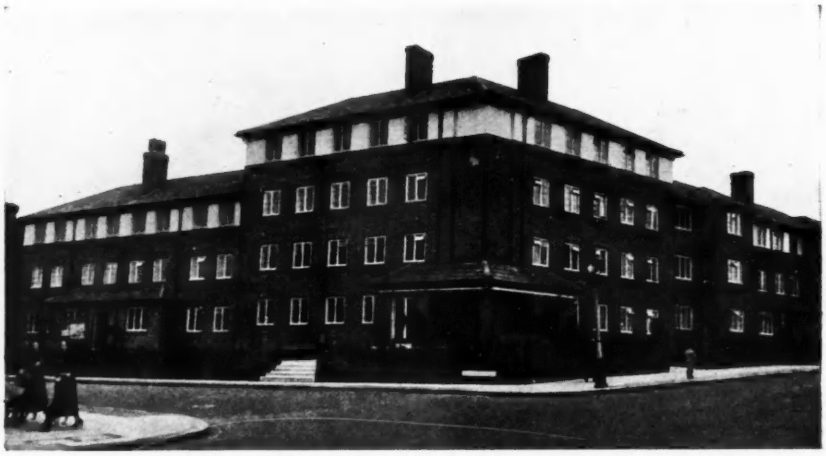
Thus, as the Committee points out, the difference in rent caused by a fall in the rate of interest from 4 per cent. to 3½ per cent. is nearly the same as the difference that would follow a reduction of £30 in the capital cost of the house. This conclusion is obviously extremely important when it is a question of the reduction of costs.

The average building cost of non-parlour houses built under subsidy fell to the record low level of £295 in the first quarter of 1933. There seems little likelihood of any very substantial reduction in this cost without far-reaching changes in construction and the materials used. The rate of interest on local loans for housing, however, has been 4 per cent. since October, 1932, when it was reduced from 4¾ per cent. A reduction of this rate of interest to 3½ per cent. would mean that the economic rent could be reduced from 8s. 7d. to 7s. 10d. per week.

A Housing Corporation of the kind which has been proposed would probably be able to lend at yet a lower rate for housing purposes.

It would thus appear that it is chiefly to a reduction in the rate of interest that the country must look for the provision of houses at an economic rent which the worker can afford to pay, without radical alterations in the method of construction.

HENDON PARK MANSIONS:



This building consists of twenty flats upon a corner site with frontages looking south-east and south-west, one of which faces a park. Fourteen of the flats have one sitting-room and two bedrooms, and six have two sitting-rooms and two bedrooms ; all have kitchen, bathroom, and w.c. in addition.

External walls are faced with multi-coloured bricks of rough texture, and the roof is covered with interlocking double Roman tiles with battens, felt and insulating board under. Floors are of normal timber construction, sound-deadened with insulating board. Living rooms are fitted with coal fireplaces, but have points for gas or electricity if desired, and the principal bedrooms have built-in electric fires. Hot-water circulation is by gas water circulators of 30-gallon capacity per flat. Staircases are of reinforced concrete, cast in situ, *covered with coloured granolithic, and have wrought-iron balustrades and limed-oak handrails. There is a garden at the back for the use of the tenants.*

A.A. Excursion

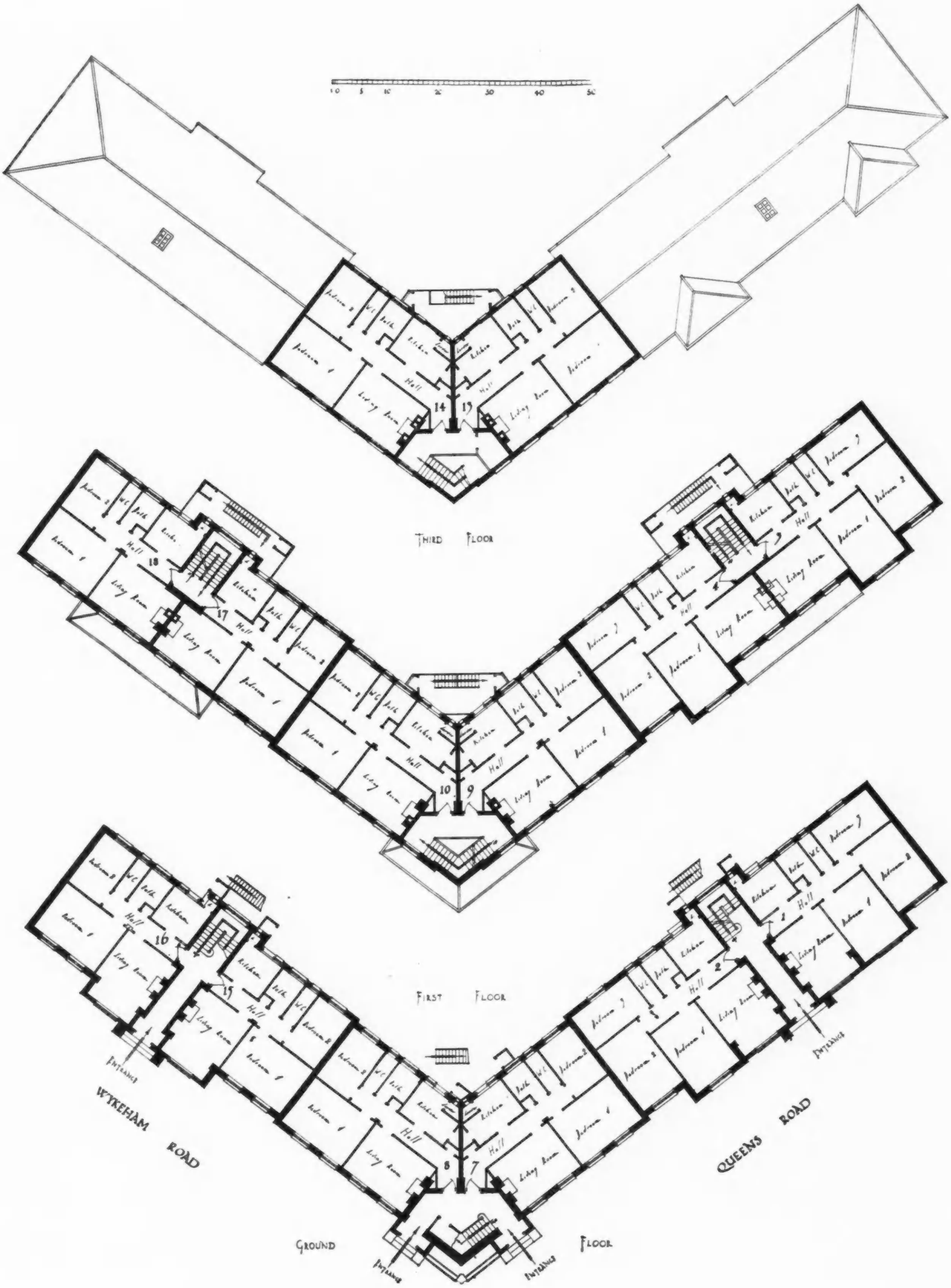
The Architectural Association has decided to organize the annual excursion this year to take place in July, and to be to Italy. The party will visit Milan for the purpose of seeing the Exhibition of Modern Decorative Art and Architecture, and will then proceed to Florence and Rome. Apart from the visits paid to old buildings, a special programme is being officially arranged for the party to see modern architecture and town planning, particularly in Rome. The party will leave London on Saturday, July 15, and the duration of the tour will be two weeks. The cost, which will include travel, hotels, breakfast and dinner, with all tips, etc., will be approximately £24. Full details are being prepared, and members desirous of joining the party should send in their names as early as possible to the Secretary, A.A., 34 Bedford Square, W.C.

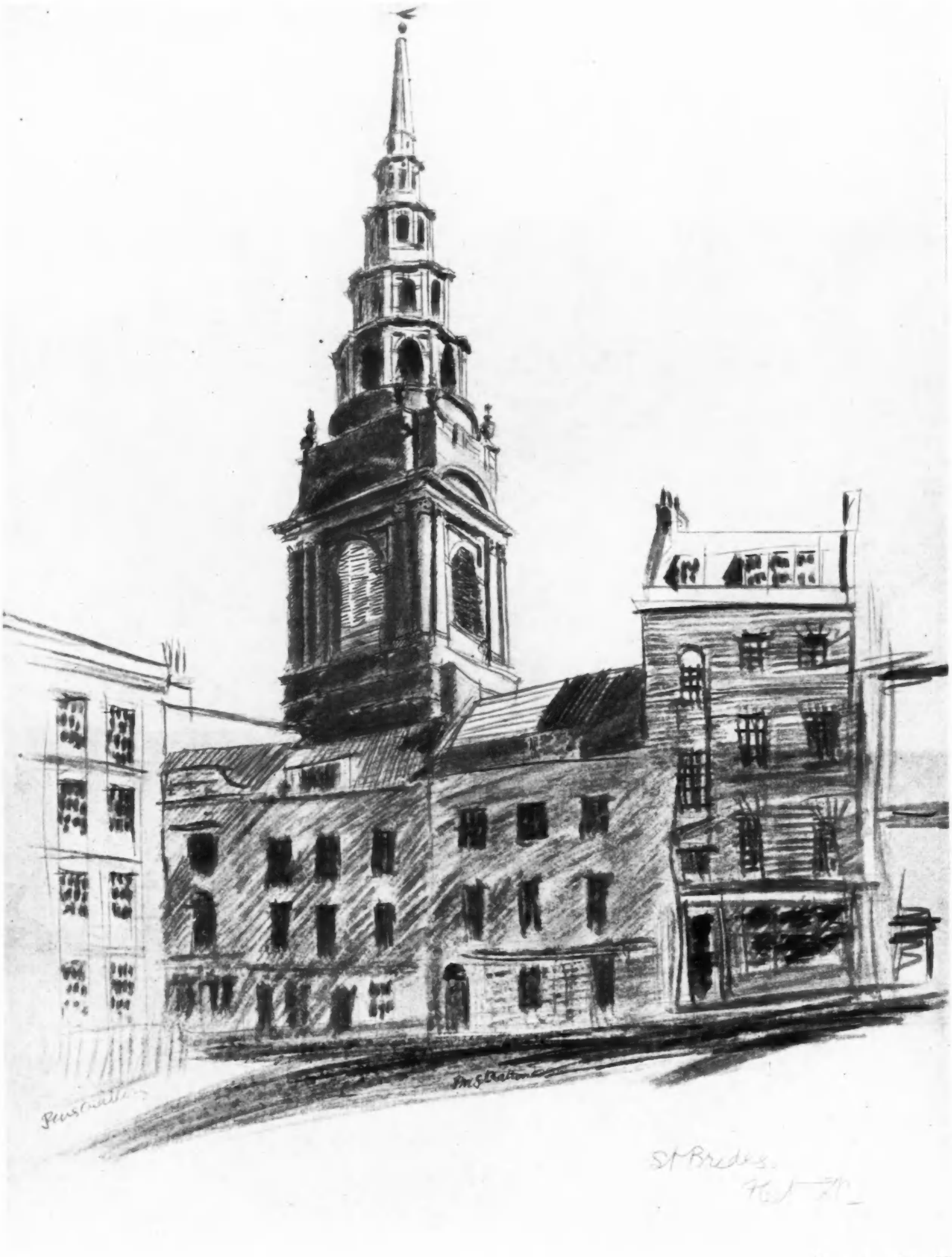
D.I.A. Annual Tour

The Design and Industries Association have arranged a tour to Northern Italy and the Dalmatian Coast from August 18 to September 2. It has been organized to enable members to visit the Milan Exhibition and also to see something of Dalmatia, a country at present comparatively little known to the tourist from England.

Three days will be spent in Milan, two in Venice, one in Verona, and the party will then go by Yugoslavian steamer to Dubrovnik and back. Full particulars are obtainable from Miss M. E. Pheysey, Secretary, 6 Queen Square, W.C.1.

DESIGNED BY BURNETT AND EPRILE


10 5 10 20 30 40 50
Bedroom 2
W.C.
Bath
Kitchen
Bedroom 1
Hall
Living Room
14
15
THIRD FLOOR
18
17
10
9
FIRST FLOOR
16
15
2
8
7
ENTRANCE
WYKEHAM ROAD
QUEENS ROAD
GROUND FLOOR



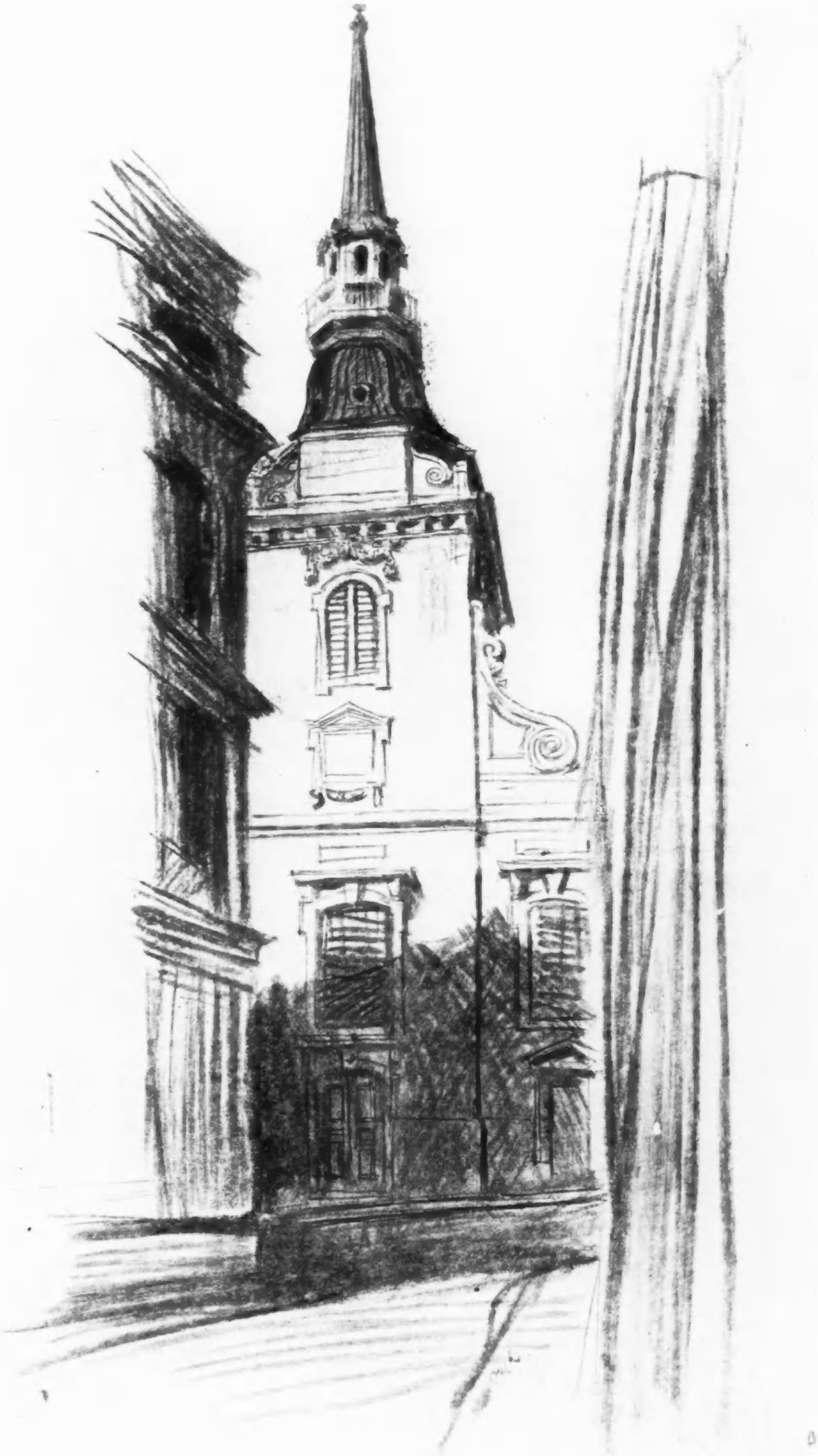
(Crayon : 14″×11½″)

Saint Bride, Fleet Street

THE SKETCH CLUB

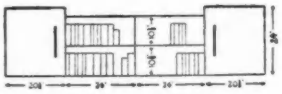
SIXTY-FOURTH SESSION

PENCIL DRAWINGS OF TWO WREN CHURCHES BY P. M. STRATTON



Saint Martin, Ludgate

(Crayon: 15″×7½″)



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Unit Furniture

ISOKON units, cupboards and book-shelves are made in standard and outside dimensions of 24 ins. by 20¾ ins. by 9 ins. or 12 ins. deep.

•

The units are built in five-ply wood, with dovetailed joints, and may be obtained in ordinary birch, or finished with Australian silky oak, plain oak, figured oak, Australian walnut or sapele veneers.

•

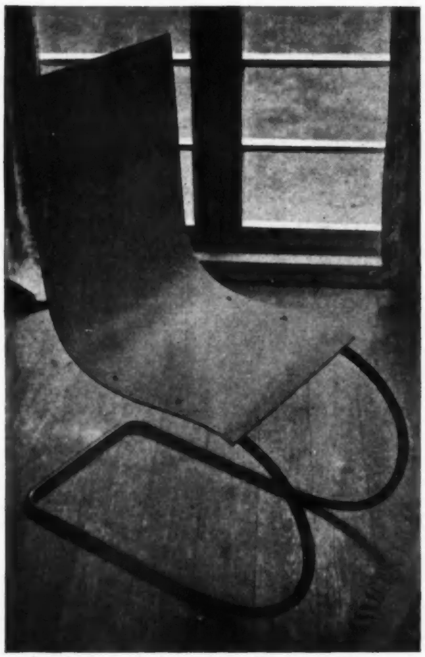
The cheapest unit, extreme right- and left-hand, in groups in the accompanying diagram, costs 9s. 10d. in birch, 19s. 6d. in oak, and 24s. 9d. in Australian walnut and sapele.

•

Matalose, a brushing, transparent cellulose, is recommended as a medium that provides a protective coating without interfering with the natural colour of the wood.

•

Isokon also make chairs and tables. The experimental chair No. 2, illustrated here, is quite functional. It is made with a minimum of tubing, and is designed to give maximum strength with minimum weight by the most economical methods of production. The bent plywood is used structurally and no tubes are required to support the back. The price of the chair is 37s. 6d.



An Isokon chair, made of steel tubing and bent plywood.

An Acoustic Consulting Service

When sound forms a part of a public entertainment, whether a play, a film, a broadcast or lecture, the listener does not get the maximum enjoyment from the performance unless the sound is heard under the best possible conditions. On the other hand, unwanted sound—noise—often interferes with the comfort and efficiency of those at work or travelling, and architects are today expected to design buildings in such a manner that noise has no adverse effect upon their clients' business.

•

The Western Electric Company have recently established an Acoustic Consulting department to assist architects and engineers in solving noise and acoustic problems. Its scope is wide, and covers acoustic design in auditoriums, acoustic design and pick-up technique in broadcasting and recording studios, noise reduction, noise survey, and sound analysis. The department* is an outgrowth of the firm's researches in the recording and reproduction of sound for talking pictures.

Stic B

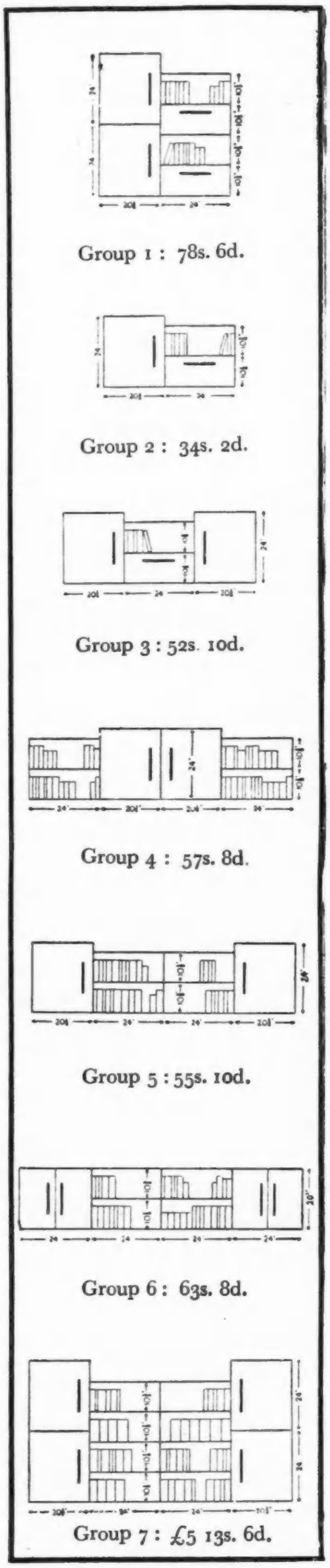
I have been asked by a reader for particulars of a material known as Stic B.

•

I understand that Stic B is not a patent material but a secret process, and all I can say concerning its composition is that it is an emulsion with a gum as one of its principal ingredients.

•

It is a decorative, protective, damp-proof and fire-resisting material, made for application to almost any type of surface, including concrete, cement, plaster and brick, and obtainable in a range of colours. Its damp-proof qualities and suitability for application to new Portland cement surfaces are reported upon favourably by the Department



Group 1 : 78s. 6d.

Group 2 : 34s. 2d.

Group 3 : 52s. 10d.

Group 4 : 57s. 8d.

Group 5 : 55s. 10d.

Group 6 : 63s. 8d.

Group 7 : £5 13s. 6d.

Cupboard and book-shelf groups built up in Isokon units. Prices are for birch.
Designed by Wells Coates.

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* Details of the service are outlined in a booklet, "Acoustic Service," that can be obtained, free, from the Western Electric Company.

of Scientific and Industrial Research, and the Building Research Station.

●

The object of the tests made by the latter was to determine the effectiveness of the treatment in the waterproofing of brick walls, to examine its applicability to fresh Portland cement rendering and to gain information concerning the durability of the treatment under exposure to weathering. The treatment consisted in the application of one coat of the "Primer" and two coats of "Stone Covering." These materials were in the form of a thin white liquid and a thicker stone-coloured cream, respectively.

●

The general conclusions reached were summarized as follows :—

1. That Stic B "Primer" and "Stone Covering," of the composition supplied for the tests, could be applied easily to porous surfaces of brick and cement.
2. That such treatment rendered brickwork rainproof when freshly applied.
3. That such treatment, when applied to brickwork, showed good resistance to the action of weathering, and was likely to remain effective and of good appearance for a reasonably long period under natural conditions of exposure in comparison with other types of waterproofer tested at the Building Research Station.
4. That such treatment could be applied to fresh Portland cement with little risk of failure and that in this respect it was superior to ordinary linseed oil paint.

Stic B was used at the new Battersea Power Station as a covering to the shuttered reinforced concrete of the chimneys.

QUESTIONS THAT ARISE

Preservation of Elm Boarding

¶ H.M. writes : "*Some months ago I had placed on the external faces of a building weathered elm boarding which has now bleached to a silver grey colour. This colour I wish to retain, but at the same time I am desirous of treating the wood for the purpose of preserving it. Would you kindly let me know what method should be taken to obtain this effect?*"

I have used considerable quantities of elm boarding in gables and cladding, always allowing it to bleach to the natural silver grey colour, but never using any means at all for its preservation. I find that it stands quite well ; the only trouble experienced being borings by ordinary wood-worm confined entirely to the sappy edges of boards used with the natural wany edges.

Elm does not take creosote preparations easily—they are apt to make the surface blotchy and to bleach out irregularly, as may be seen where this treatment has been applied. There is, however, a colourless Solignum now made which should be applicable without disclosing this defect, and if for any reason a preservative is thought essential, this appears the most suitable application.

E. G.

The Editor invites readers' enquiries on all matters connected directly or indirectly with architectural practice. Readers must enclose name and address and should send their enquiries to the Editor at 9 Queen Anne's Gate, S.W.1.

External Walls

¶ F. W. N. writes : "*The external walls of a house are specified to be rendered in cement and sand and finished with rough cast, which is usually taken to mean cement and shingle. The effect of this when dry is to give a greyish white colour to the wall and my client insists that the resultant colour shall be 'pinky cream.'*

"*Could your expert supply me with a recipe for a rough-cast mixture which will give the desired effect when dry? I have suggested to the plasterer that the rough-cast might consist of lime and shingle, gauged with cement, with a pigment incorporated, but we cannot agree on the proportions of lime and cement, or on the pigment to be used.*"

Two reliable alternatives seem to be open to your correspondent : (1) The matrix of the roughcast coat might be made up with Cullamix of the desired tint, this being a mixture of white cement, pigment and white sand supplied in bags by the Portland Cement Co. ; or (2) the roughcast might be carried out by ordinary methods and distempered the desired tint at completion. The second method would probably prove cheaper, and, in the case of a particular client, more likely to give the exact result desired. Any mixture of lime, cement, shingle, and pigment such as proposed is liable to dry out to a different colour with patchy results.

E. G.

Efflorescence on Plaster

¶ B. L. M. writes : "*In a small house on the sea-side two years ago alterations and repairs were done ; since then there has been a continuous deposit of salt on the walls, which has been swept off at intervals only to recur. The walls were redistempered last year with a view to curing the condition, but they are again as bad as ever. The builder now informs us that sea sand was used for the plaster and he advises complete replastering. I should be obliged if your expert can tell me of any less expensive remedy for this condition, and if in his opinion it is likely to be the sea sand used in the plastering.*"

It is presumably the internal plastering of rooms which is affected in the way described. If the cause is definitely established, the effects are likely to continue almost in perpetuity as long as moisture can reach the work which contains the salts, and evaporate by the exposed surface. The necessary moisture may be derived from the atmosphere, or may be driven into external walls from outside.

Before embarking on this troublesome and costly job of removing the plaster and re-executing it, it might be worth experimenting with a dressing of bitumastic paint on the surface, followed by distempering. If the moisture which causes the crystallization is absorbed by the face of the plastering in contact with the air it is quite possible that painting in this way might effect a cure. Several replies to queries relating to efflorescence were among the problems dealt with in the first published volume of the B.R.S. "Questions and Answers," and querist might like to consult these before taking action.

E. G.

LAW REPORT

LIGHTS AND AIR DISPUTE

Goffe v. Cox and Martin, Ltd.—King's Bench Division. Before Lord Wright.

THIS was an action by Dr. E. G. L. Goffe, of Red House, Kingston Hill, Surrey, against the defendants, Cox and Martin, Ltd., of Kings Store House, Kingston-on-Thames, claiming damages for the alleged obstruction of the ancient lights to his premises, No. 10 High Street, Kingston-on-Thames, by reason of the erection of a building of a permanent character by the defendants, known as No. 12, High Street, Kingston-on-Thames.

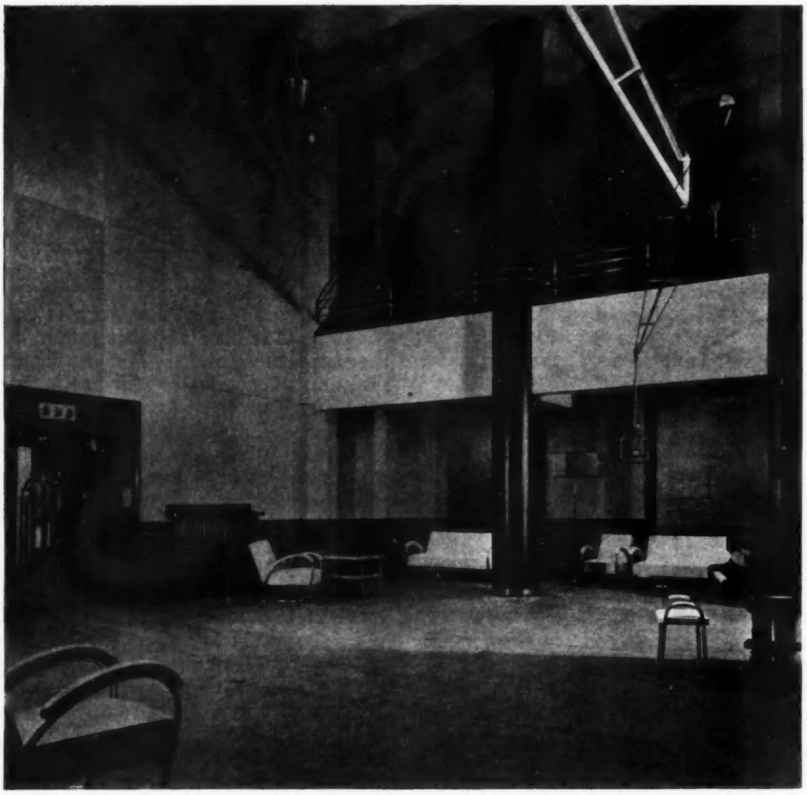
The plaintiff, who was the owner of premises, No. 10 High Street, complained that, in consequence of the defendants' building, the light to his surgery, consulting room and inner consulting room windows had been so materially diminished as to amount to a nuisance and also that the light to the landing, bathroom, and cellar windows had been materially obstructed. Dr. Goffe alleged that the result of the obstruction was that the value of his house and surgery had been greatly reduced.

The defence was a denial that the light to the plaintiff's windows had been so materially diminished by the defendants' building as to amount to a legal nuisance.

Mr. Porter, K.C., and Mr. Blanco White appeared for the plaintiff and Mr. Cyril Atkinson, K.C., and Mr. A. Watson for the defendants.

His Lordship, after hearing the expert evidence, and in giving judgment, said that the building of which Mr. Goffe complained was a high building and his main complaint was as

IN BROADCASTING HOUSE, LEEDS



Broadcasting House, Leeds, is constructed in what was the old Quaker Meeting House, and the main studio, illustrated above, is a portion of the large Meeting Room. As this studio is used for many totally different types of broadcast, the general colour scheme is low in tone, black, greys, browns and the oatmeal colour of the wallboard being relieved with the sparkle of chromium plate. Note the microphone on the right of the illustration. The studios are fully illustrated and described in the current issue of " The Architectural Review," from which the above photograph is reproduced.

to the obstruction of light to his ground-floor windows, which he alleged had deprived him of sufficient daylight to enable him efficiently to carry on his professional work. The premises, No. 10, went for some distance by the side of a stream called the Hoggs Mill stream. Previous to the erection of the defendants' building there existed a comparatively low building. Dr. Goffe's premises were, it was stated, between 200 and 250 years old. They had been originally used as a private residence, but about 50 years ago the front of the building was converted into a shop. The doctor's consulting rooms, of which the main complaint was made, were on the ground floor, the other windows, the lights of which were said to be diminished by the defendants' building, being on the first floor. When the plaintiff's premises were used as a private dwelling house, the ground floor was partitioned off into various rooms. The premises were used as a shop until 1913 and then the plaintiff put in partitions, which made his consulting rooms. The plaintiff also altered the front.

Having referred in detail to structural alterations which the plaintiff had made, his Lordship said that the windows of which plaintiff complained were beyond any doubt ancient lights, and the question he had to decide was whether in the events which had happened the plaintiff had made out a case for relief. Having regard to the evidence he came to the conclusion that the plaintiff's light was so interfered with, that an actionable wrong ensued, and that the plaintiff was entitled to damages, which he assessed at £150.

He accordingly gave judgment for Dr. Goffe for £150 with costs.

THE BUILDINGS ILLUSTRATED

Following are the names of the specialists, general contractors and some of the sub-contractors for the buildings illustrated in this issue :

House at Willingdon, Sussex (page 751). General contractors, G. E. Wallis and Sons. Sub-contractors : Dent and Hellyer, heating, hot water, plumbing, and sanitation ; Waring, Withers and Chadwick, electrical installation ; Roberts Adlard & Co., Ltd., tiles.

Rishworth School, Halifax (pages 752-753). Sub-contractors : E. and T. Bower, Ltd., masonry ; C. and W. Whiteley, joinery ; John Holdsworth, plumbing ; H. Castle and Son, Ltd., slates ; George H. Hoyle, plaster ; B. Mallinson and Son, painting ; Rosser and Russell, Ltd., heating ; John Cooke and Son, Ltd., reinforced concrete and compo floors ; T. K. Yeates & Co., wood blocks ; Hamer & Co., electricians ; Val de Travers Asphalte Co., rock asphalt ; North of England School Furnishing Co., laboratory ; Niels Larsen and Sons, gymnasium ; Williams and Turpie, ironmongery.

Hendon Park Mansions (pages 760-761). General contractors, Higgs and Hill. Sub-contractors : G. Tucker and Sons, Ltd., bricks ; Matthew T. Shaw & Co., Ltd., structural steel ; H. J. and C. Major, Ltd., tiles ; Alfred Goslett & Co., Ltd., grates and door furniture ; North Middlesex Gas Co., gasfitting ; Sunhot, boilers ; F. Wadman, electric wiring and bells and clocks ; Crittall Manufacturing Co., Ltd., casements and window furniture ; Gifco, iron staircases and metal work ; Plastering, Ltd., plaster ; Hall & Co., tiling ; Hampstead Garden Suburb Trust Nursery, garden, shrubs and trees ; General Constructional and Engineering Co., iron staircases and balustrades ; Arden Hill & Co., gas circulators ; Boulton and Paul, Ltd., joinery ; Gliksten Doors, Ltd., B.P. Insulating Board ; Jenson and Nicholson, Ltd., paints and distempers ; J. Wormell, coal and dust bins.

A Country Architect's Week

BY R. JACKSON

Sunday
One week behind, another week to go.
Between ? A moment's halt, but could I know
What lies before me, don't you somehow think
I'd take to drink ?

Monday
Eccles, the lawyer, wandered in to say
That, Did I know the firm of Knight and Day
Who're building now my house for farmer Butt
Had just gone phut ?

Tuesday
On languidly examining my mail,
I find the usual twenty pages' wail,
Boiled down, it means that Lady Griggs believes
Builders are thieves.

Wednesday
Excited ; Jones rang up to say that Brown
Had left, quite unexpectedly, the town.
Yet one more repetition of that ill,
The unpaid bill.

Thursday
While absent, and inspecting Upton Rawl,
The Vicar called *re* sketch plans for his Hall.
Finding my draftsman impudent and tight,
Went off to White.

Friday
The Town Surveyor made me view a drain,
A thing I never do without great pain ;
And while the foreman droned about the sump,
I had the hump.

Saturday
To-day I feel that things are much more bright
At half-past six I know, with Bobbie White
I'll celebrate (the friendly cheerful soul)
The nineteenth hole.

* * *

And yet ! the fascination of it all,
The victims are for ever held in thrall.
I must away. That crack in Simkin's house !
Stupid to grouse.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at BARKING: Alterations and additions, "Britannia" public-house, for Messrs. Mann, Crossman and Paulin, Ltd.; two houses, King Edward's Road, for Mr. Samuel Rogers; two houses, Upney Lane, for Mr. C. J. Dawson; alterations, 93 and 95 Movers Lane, for Mr. Watling; alterations, 48 Ripple Road, for Messrs. J. H. Dewhurst, Ltd.; transformer house, Abbey Road, for Messrs. Austins; new factory, River Road, for Messrs. Orrock.

Plans passed by the ENFIELD U.D.C.: Development, Orchardleigh estate, for 14 shops, and 54 houses, for Estate Co.; nine houses, Oatlands estate, Brimsdown, for Oatlands Estate, Ltd.; 34 houses, Parsonage Gardens estate, for Messrs. G. Reed and Sons, Ltd.; four houses, Gilbert Street, for Messrs. Bethell and Swannell; four houses, Uvedale Road, for Mr. Ernest E. Yates; extensions, Sangamo Works, Gt. Cambridge Road, for Messrs. Wimperis, Simpson and Guthrie; two houses, Brodie Road, for Mr. T. Towers; alterations and additions, "Rose and Crown" public-house, Clay Hill, for Messrs. C. S. Foster and Son; three shops, Chase Side, for Mr. C. E. Q. Ward; six houses, Carterhatch Road, for Messrs. Lewis, Veronique and Day; four houses, Catherine Road, for Messrs. Hamilton, Son and Campion; five houses, Carterhatch Road, for Mr. W. H. Jefferies; two houses, Malvern Road, for Messrs. French and Buchanan; 40 houses, Cheyne Walk, for Mr. G. W. Newman; extensions, London Plywood Factory, Ponders End, for Messrs. Dunsmore Bros.; 240 houses, Orchard estate, Enfield Wash, for Messrs. Hilbery Chaplin, Ltd.; 170 houses, Greenwood Avenue, etc., for Homemakers, Ltd.; 12 houses, Ladysmith Road, for Messrs. Rowley Bros., Ltd.; seven houses, Ashurst Road, for Mr. C. Winkley. Plans submitted: eight houses, Green Street, for Mr. C. H. Knight; two factory buildings, Ponders End, for Churchbury Investment Co. Ltd.

Plans passed by the FINCHLEY U.D.C.: Five houses, Bancroft Avenue, for Mr. W. Quennell; two houses, Westbury Road, for Mr. A. A. Park; six houses, Bancroft Avenue, for Messrs. Smerdon Bros.; two houses, Kingsley Way, for Mr. L. C. Gibson; alterations, Methodist Church, Ballards Lane, for trustees; 14 houses and one shop, Woodhouse Road, for Messrs. Lawes and Son, Ltd.; two houses, Brim Hill, for Mr. S. G. Liversedge; factory, East Finchley High Road, for Messrs. W. Luck and Sons. Plans submitted: six shops and flats, corner Creighton Avenue, for Mr. J. Brown; shop extensions, Hill Rise, for Greater London Properties, Ltd.

Plans passed at ILFORD: Alterations and additions, 792 Green Lane, for Messrs. Sanders Bros.; nine houses, Birkbeck Road, for Mr. H. V. Meekcoms; 12 houses, Beattyville Gardens, for Mr. J. Aldridge; eight houses, Vaughan Gardens, for Mr. T. Anders; 16 houses, Royston Parade, Wanstead Lane, for Mr. J. Aldridge; two houses, Barley Lane, for Mr. G. F. Siegerts; 245 houses, Ashburton Avenue, Dawlish Drive and Capel Gardens, for Ilford Building Co.; two houses, Bealla Gardens, for Mr. J. Giles; milk store, 327 Green Lane, for Mr. J. Looker; two houses, Hastings Road, for Messrs. Vernon Gordon & Co.; eight houses, Trescoe Gardens, for Messrs. W. Moore and Son; estate office, Eastern Avenue, for Mr. J. W. Lohden; 28 houses, Stapleford Avenue, for Mr. J. W. Lohden; two houses, Abury Gardens, Aldborough Road, for Mr. T. Colgate; four houses, Donington Avenue, for Messrs. B. Bailey; alterations, 157 High Road, for Messrs. J. Curtis and Son.

The ILFORD Corporation has approved a scheme for extensions at the isolation hospital at a cost of £51,000.

Plans passed by the MARYLEBONE B.C.: Two houses, Grove End Road, for Mr. R. Atkinson; buildings, site of 506-540 Oxford Street, for Sir John Burnet, Tait and Lorne; rebuilding, 54 Hamilton Terrace, for Mr. Guy Dawber; block of flats, 70 Grove End Road, and Abbey Road, for Mr. J. A. Mactaggart.

Plans passed by the POPLAR B.C.: Alterations, "Cubitt Arms" public-house, Wellington Road, for Mr. A. E. Sewell; additions, Metropolitan Transport Garage, Tredegar Road, for Messrs. Kearley and Tonge, Ltd.; additions, City of London Institution, Bow Road, for Messrs. J. C. Mather and Son; additions, St. Katherine's College, Brunswick Road, for Messrs. Mason's (Poplar), Ltd.

SOUTHERN COUNTIES

Plans passed by the FARNHAM U.D.C.: Two bungalows, Fox Yard, for Mr. A. Butt; two houses, Upper Bourne, for Mr. H. J. Smith; two bungalows, Wings Road, for Mr. J. Chuter; two houses, Beavers Hill estate, for Mr. R. W. Hards; alterations, Bourne Mills, for Mr. G. W. Grace.

The KENT C.C. has obtained sanction to borrow £66,000 for extensions at the Leybourne Grange mental colony, and the works have accordingly been commenced.

Plans passed at NORTHFLEET: Nine houses, Napier Road, for Mr. W. J. Rattery; additions, 36, Mitchell Avenue, for Messrs. R. Hopkins and Sons; four bungalows, Newman's Road, for Messrs. Bevan Bros.; extension of shop, Waterdales, for Mr. S. T. Toulson; two houses, Perry Street Road, for Mr. A. E. Wells.

Plans passed by the OXFORD Corporation: Four shops, Hollow Way, Cowley, for Mr. J. E. Cammell: additions to bakery, George Street, Summertown, for Messrs. Oliver and Gurden; additions to bakery, Bullingdon Road, for Mr. J. H. Warland; conversion of house into four flats, 96 Banbury Road, for Mr. H. Hinkins; two houses, Highfield Avenue, Headington, for Messrs. Ponton & Co.; factory, Carsington Road, for The British Paint and Lacquer Co., Ltd.; two houses, Ramsay Road, for Mr. G. Coppock; additions, adjoining Rawlingson Buildings, St. Giles' Street, for The President of St. John Baptist College; workshop and store, rear of Oxford Road, Cowley, for Messrs. E. Organ and Son; eight houses, Five Mile Drive, for Mr. D. Mealing; five houses, Banbury Road, for Mr. A. J. Colborne; 78 houses (amended plan), Westbury Crescent, for Messrs. N. Moss and Son, Ltd.; 11 houses (amended plan), Oliver Road, Cowley, for The Artisan Building Co.; 16 houses, White Road, Cowley, for Mr. A. E. Harris; additions, Cowley Working Men's Club, Oxford Road, for Messrs. Ushers' Wiltshire Brewery, Ltd.; 132 houses, Cowley Road, for Messrs. N. Moss and Son, Ltd.; two houses, Sandfield Road, Headington, for Mr. A. W. Lee; shop, Cowley Road, for Messrs. N. Moss and Son, Ltd.; additions to workshop, Garsington Road, for The Pressed Steel Co., Ltd.; alterations and additions, 2-4, Brewer Street, for Christ Church; two houses, Five Mile Drive, for Messrs. Hinkins and Frewin, Ltd.; porter's lodge, South Parks Road, for University Chest.

SOUTH-WESTERN COUNTIES

The EXETER Corporation is to obtain tenders for the erection of 300 houses on the St. Loyes estate.

Plans passed at PAIGNTON: Two houses, Barcombe Road, for Mr. F. A. Maunder; shops and stores, Winner Street, for Paignton Co-operative Society, Ltd.; two houses, Sparkes Barn Road, for Mr. F. G. Stockman; showroom, Torquay Road, for Torquay and Paignton Gas Co.; conversion of Cliff Park House, Dartmouth Road, into six flats, for the Staverton Builders, Ltd.; sixteen houses, Saltern Road, for Mr. R. H. Peeke and Son; two houses, Dunstone Park, for Mr. J. Maunder; 28 houses, Preston Down Road, for the Great Western Building Corporation, Ltd.; six houses, Redburn Road, for Mr. Chippendale; two houses, Knapp Park Road, for Mr. A. B. Soul; seven bungalows, off Horseshoe Bend, for The Coasts Estates, Ltd.

MIDLAND COUNTIES

Plans passed by the STOKE-ON-TRENT Corporation: Four houses, Lancaster Road, Harpfields, for Messrs. Hollins and Jones; two houses, Stone Road, Hanford, for Messrs. Holloway & Co.; two houses, St. George's Avenue, for Mr. H. Bratt; two houses, Chorley Avenue, Chell Green, for Mr. H. Sale; three houses, Bradeley Lane, Bradeley, for Mr. W. G. Hollins; 24 houses, off Little Chell Lane, Tunstall, for Mr. L. J. Cope; 11 houses, Chell Street, Hanley, for Messrs. L. Ray and Son; 10 houses, Cromwell Road, Sneyd Green, for Mr. B. Stubbs; two houses, Blurton Road, Fenton, for Messrs. Bowman and Woodfield; four houses, Blurton Road, Fenton, for Messrs. Prestwood Bros.; two houses, Star and Garter Road, Longton, for Messrs. Holloway & Co.; four houses, Stone Road, Lightwood, for Mr. G. Titley; four houses, Barber Road, Chell, for Messrs. Ray and Son; two houses, Sandon Road, Meir, for Mr. C. Underhill; six houses, New Inn Lane, Trentham, for Mr. H. J. Emery; two houses, London Road, Oakhill, for Messrs. W. Ball and Son; two houses, High Street, Cornhill, for Mr. J. Gregory; two houses, Norman Avenue, Tunstall, for Mr. C. Whalley; two houses, Greasley Road, Bucknall, for Mr. W. Withington; two houses, Weston Coyney Road, Longton, for Mr. W. Simcock; five houses, Vivian Road, Fenton, for Mr. S. Mason; 50 houses, Whieldon Road, Fenton, for Messrs. Bates and Hughes; two bungalows, Longton Lane, for Mr. G. Witham; six houses, Kingston Avenue, Sneyd Green, for Mr. B. S. Phillips; shop, Marsh Street, for Messrs. E. R. Dawson; alterations to four houses, Oxford Street, Penkhull, for the Burslem and District Co-op. Society, Ltd.; two houses, Blurton Road, for Messrs. Bowman and Woodfield; 24 houses, Chell Lodge estate, for Mr. L. J. Cope; additions, Swan Street, for the Winkhill Mill Co.

NORTHERN COUNTIES

The Durham County Council Assistance Committee recommends the provision of a surgical unit for BISHOP AUCKLAND, and a medical unit at Chester-le-Street at a cost of £29,200.

The BLYTH Corporation has received sanction to borrow £46,775 for the erection of 200 houses on the South Farm Estate, £5,700 for the construction of roads, and £2,325 for the construction of sewers.

Plans passed at BLYTH: Two houses, Cowpen Road, for Messrs. J. and W. Simpson; four houses, Newcastle Road, for Mr. A. Best; alterations, Wellesley Nautical School, Links Road, for the trustees; six flats, Princess Louise Road, for Mr. J. E. Dover; two bungalows, Barras Avenue, for Mr. J. E. Dover; eight flats, Salisbury Street, for Messrs. Bird, Ltd.; four flats, Beaumont Street, for Mr. H. Berg.

The ECCLES Corporation is to obtain tenders for the erection of 100 houses on the Haddon Road estate.

The TODMORDEN Corporation is to undertake a rehousing scheme at a cost of £18,854.

The TYNEMOUTH Corporation has decided to proceed with the second section of the slum rehousing scheme, provision being made for the erection of 216 houses.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A_1	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist. ..	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	„		1	7
Joiner	„		1	7
Machinist	„		1	8
Mason (Banker)	„		1	7
„ (Fixer)	„		1	8
Plumber	„		1	7
Painter	„		1	6
Paperhanger	„		1	6
Glazier	„		1	7
Slater	„		1	7
Scaffolder	„		1	3
Timberman	„		1	3
Navvy	„		1	2¼
General Labourer	„		1	2¼
Lorryman	„		1	5
Crane Driver	„		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	„	1	16	6
Hydrated Lime	„	3	0	9
Portland Cement	„	2	6	0
Rapid Hardening Cement	„	2	13	6
Thames Ballast	per Y.C.		6	9
¾″ Crushed Ballast	„		7	6
Building Sand	„		7	9
Washed Sand	„		8	9
2″ Broken Brick	„		8	3
¾″ „ „	„		11	6
Pan Breeze	„		6	6
Coke Breeze	„		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4″ s.	4″ d.	6″ s.	6″ d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	„	3	6	5	3
Rest bends	„	4	3	6	3
Single junctions	„	3	6	5	3
Double „	„	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾″ Channel bends	each	2	9	4	0
Channel junctions	„	4	6	6	6
Channel tapers	„	2	9	4	0
Yard gullies	„	6	9	8	9
Interceptors	„	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	„	9	0	15	0
Single junctions	„	8	9	18	0
Double junctions	„	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	„		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	„	3	0	0
Phorpres bricks	„	2	18	0
Stocks, 1st quality	„	4	11	0
„ 2nd „	„	4	2	6
Blue Bricks, Pressed	„	9	2	6
„ Wirecuts	„	8	2	6
„ Brindles	„	7	6	6
„ Bullnose	„	9	14	0
Red Sand-faced Facings	„	6	18	6
Red Rubbers for Arches	„	12	0	0
Multicoloured Facings	„	8	8	0
Luton Facings	„	8	0	0
Phorpres White Facings	„	3	17	3
Phorpres Rustic Facings	„	3	12	3
Midhurst White Facings	„	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	„	21	10	0
Headers	„	21	0	0
Bullnose	„	28	0	0
Double Stretchers	„	30	0	0
Double Headers	„	27	0	0
Glazed Second Quality, *Less*	„	1	0	0
„ Buffs and Creams, *Add*	„	2	0	0
„ Other Colours	„	5	10	0
2″ Breeze Partition Blocks	per Y.S.		1	7
2½″ „ „ „	„		1	10
3″ „ „ „	„		2	1
4″ „ „ „	„		2	6

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
„ „ Basebed	„	4	9
Bath stone	„	2	11
York stone	„	6	6
„ „ Sawn templates	„	7	6
„ „ Paving, 2″	F.S.	1	8
„ „ „ 3″	„	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24″ × 12″ Duchesses	per M.	24	10	0
22″ × 12″ Marchionesses	„	24	10	0
20″ × 10″ Countesses	„	19	5	0
18″ × 10″ Viscountesses	„	15	10	0
18″ × 9″ Ladies	„	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20″ × 10″ medium grey	per 1,000 (actual)	26	0	0
„ green	„ „	27	15	0
Best machine roofing tiles	„	4	10	0
Best hand-made do.	„	5	0	0
Hips and valleys	each			9½
„ hand-made	„			10
Nails, compo	lb.		1	4
„ copper	„		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1″ F.S.			9
Deal, Joiner's	„ „			5
„ „ 2nds	„ „			4
Mahogany, Honduras	„ „		1	3
„ African	„ „		1	1
„ Cuban	„ „		2	6
Oak, plain American	„ „		1	0
„ Figured „	„ „		1	3
„ Plain Japanese	„ „		1	2
„ Figured „	„ „		1	5
„ Austrian wainscot	„ „		1	6
„ English	„ „		1	11
Pine, Yellow	„ „		1	0
„ Oregon	„ „			4
„ British Columbian	„ „			4
Teak, Moulmein	„ „		1	3
„ Burma	„ „		1	2
Walnut, American	„ „		2	3
„ French	„ „		2	3
Whitewood, American	„ „		1	1
Deal floorings, ¾″	Sq.		19	0
„ ⅞″	„	1	1	6
„ 1″	„	1	3	6
„ 1¼″	„	1	7	6
„ 1½″	„	1	12	0
Deal matchings ½″	„		14	0
„ ¾″	„		15	6
„ 1″	„	1	4	0
Rough boarding ¾″	„		16	0
„ 1″	„		18	0
„ 1½″	„	1	6	0

Plywood, per ft. sup.

Thickness	3/16″			¼″			⅜″			½″		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½″	¾″	1″	1¼″	2″
Tubes, 2′-14′ long, per ft. run		4	5½	9¼	1/1	1/10
Pieces, 12″-23½″ long	each	10	1/1	1/11	2/8	4/9
„ 3″-11½″ long	„	7	9	1/3	1/8	3/-
Long screws, 12″-23½″ long	„	11	1/3	2/2	2/10	5/3
„ „ 3″-11½″ long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/-	3/-	5/6	6/9	10/-
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/-	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain Sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	6	9	1/-	2/-
Flanges	„	9	1/-	1/4	1/9	2/9
Caps	„	3½	5	8	1/-	2/-
Backnuts	„	2	3	5	6	1/1
Iron main cocks	„	1/6	2/3	4/2	5/4	11/6
„ „ with brass plugs	„	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61¼	„ water	47½
Steam	57½	„ steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	„ water	42½
Steam	47½	„ steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜″	„	8	6
„ „ ½″	„	8	3
„ „ ⅝″	„	8	0
„ „ ¾″	„	7	6
„ „ ⅞″	„	7	6
„ „ 1″	„	7	6
„ „ 1¼″	„	7	6
„ „ 1½″	„	7	6

		3″ s.	3″ d.	4″ s.	4″ d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	„	5	0	8	6
Boots	„	3	3	4	5
Bends	„	2	9	4	0
„ with access door	„	—		6	9
Heads	„	4	0	5	0
Swan-necks up to 9″ offsets	„	4	0	6	3
Plinth bends, 4½″ to 6″	„	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	„	1	7	1	11
Obtuse angles	„	2	0	2	6
Outlets	„	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	0	6
„ drawn pipes	„		17	6
„ soil pipe	„	1	0	6
„ scrap	„		15	0
Solder, plumbers'	lb.			10
„ fine do.	„		1	0
Copper, sheet	„			10½
„ tubes	„			11

L.C.C. soil and waste pipes:		3″ s.	3″ d.	4″ s.	4″ d.	6″ s.	6″ d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	„	1	1	1	3	2	8
Galvanized	„	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	„	3	9	5	3	10	3
Shoes	„	2	10	4	4	9	6
Heads	„	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	„	2	10	0
„ fine	„	4	15	0
Hydrated lime	„	3	0	9
Sirapite	„	3	6	0
Keene's cement	„	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
„ rent	„		3	9
Lath nails	lb.			3½

GLAZIER

		s. d.		s. d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2¾
„ „ 26 oz. „ „ „	„			3¾
Arctic glass, white	„			7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	„			6½
¼″ Hartley's rough rolled	„			7
¼″ „ wired cast	„			10
¼″ Georgian wired cast	„			11
¼″ Polished plate, n/e 1 ft.	„	†7½	to	‡1 0
„ „ 2	„	†10	„	‡1 3½
„ „ 3	„	†1 4½	„	‡1 10
„ „ 4	„	†1 11	„	‡2 4
„ „ 6	„	†2 3	„	‡2 7½
„ „ 8	„	†2 5	„	‡3 0½
„ „ 12	„	†2 10	„	‡3 3½
„ „ 20	„	†3 3½	„	‡3 9
„ „ 45	„	†3 6½	„	‡4 0½
„ „ 65	„	†3 11½	„	‡4 4
„ „ 90	„	†4 4	„	‡4 9
„ „ 100	„	†4 6	„	‡4 11
Vita glass, sheet, n/e 1 ft.	„			1 0
„ „ „ „ 2	„			1 3
„ „ „ over 2	„			1 9
„ „ plate, n/e 1 ft.	„			1 6
„ „ „ 2	„			3 0
„ „ „ 5	„			4 0
„ „ „ 7	„			5 0
„ „ „ 15	„			6 0
„ „ „ over 15	„			7 6
Putty, linseed oil	lb.			3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	1
Boiled oil	„		2	3
Turpentine	„		5	0
Patent knotting	„		14	0
Distemper, washable	cwt.	3	0	0
„ ordinary	„	2	5	0
Whitening	„		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	„		14	0
Outside varnish	„		16	0
White enamel	„	1	15	0
Ready-mixed paint	„		13	6
Brunswick black	„		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		2	9
,, to reduce levels n/e 5' 0" deep and cart away		Y.C.		8	6
,, to form basement n/e 5' 0" deep and cart away		,,		9	0
,, ,, 10' 0" deep and cart away		,,		9	6
,, ,, 15' 0" deep and cart away		,,		10	0
If in stiff clay	add	,,		2	6
If in underpinning	,,	,,		4	0
Digging, return, fill and ram	,,	,,		4	0
Planking and strutting to sides of excavation		F.S.		1	0
,, ,, to pier holes		,,			5
,, ,, to trenches		,,			5
,, ,, extra, only if left in		,,			3
Hardcore, filled in and rammed		Y.C.		10	0
Portland cement concrete in foundations (6-1)		,,	1	6	0
,, ,, ,, (4-2-1)		,,	1	12	6
,, ,, ,, underpinning		,,	1	16	0
Finishing surface of concrete, spade face		Y.S.			7

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions		3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	28	10	0
,, ,, in cement	,,	29	15	0
,, Stocks in cement	,,	35	15	0
,, Blues in cement	,,	52	0	0
Extra only for circular on plan	,,	2	0	0
,, backing to masonry	,,	1	10	0
,, raising on old walls	,,	2	0	0
,, underpinning	,,	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	,,			5½
,, ,, ,, red brick facings and pointing	,,			11
,, ,, ,, blue brick facings and pointing	,,		1	4
,, ,, ,, glazed brick facings and pointing	,,		3	6
Tuck pointing	,,			7
Weather pointing in cement	,,			3½
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	1

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	,,		13	6
Artificial stone and do.	,,		13	0
York stone templates, fixed complete	,,		10	6
,, thresholds	,,		13	6
,, sills	,,	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	,,		4	6
,, ,, roofs	,,		6	6
,, ,, trusses	,,		7	6
,, ,, partitions	,,		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" ,, ,, ,, ,,	,,	1	17	6
1¼" ,, ,, ,, ,,	,,	2	3	0
¾" × 2" fir battening for Countess slating	,,		9	6
Do. for 4" gauge tiling	,,		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
,, ,, ,, 2 ,,	,,		2	9
,, ,, ,, 3 ,,	,,		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1½" ,, ,, ,, ,, ,,	,,		1	6
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	,,	2	12	6
1½" do.	,,	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1½" do.	,,		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" ,, ,,	,,	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	3	9
2" ,, ,, ,,	,,	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" ,, ,, ,,	,,	2	8
1½" ,, but moulded both sides	,,	2	4
2" ,, ,, ,,	,,	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" ,, ,,	,,	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2	6
1½" deal moulded wall strings	,,	2	1
1½" ,, outer strings	,,	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" ,, ,,	,,	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	,,	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	,,		19	6
Do. stanchions with riveted caps and bases and do.	,,		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	15	0
Do. in flashings	,,	1	17	6
Do. in covering to turrets, etc.	,,	2	4	6
Do. in soakers	,,	1	10	6
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	0	1	2	1	5	2	1	3	0	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	3
Do. to stop ends	,,		6½		8		9		11	1	3	—	
Boiler screws and unions	,,	3	3	3	9	5	0	8	0	—		—	
Lead traps	,,	—		—		—		6	3	8	9	—	
Screw down bib valves	,,	6	9	9	6	11	0	—		—		—	
Do. stop cocks	,,	9	0	11	0	14	6	20	6	47	0	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	,,		3	6
Lathing with sawn laths to ceilings	,,		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		1	9
Do. vertical	,,		2	3
Rough render on walls	,,		1	4
Render, float and set in lime and hair	,,		2	0
Render and set in Sirapite	,,		2	2
Render, backing in cement and sand, and set in Keene's cement	,,		3	1
Extra, only if on lathing	,,			4
Keene's cement, angle and arris	F.R.			6
Arris	,,			2
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			1½
1" granolithic pavings	Y.S.		3	6
1½" ,,	,,		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		17	6
9" × 3" ,, ,, ,, ,,	,,	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

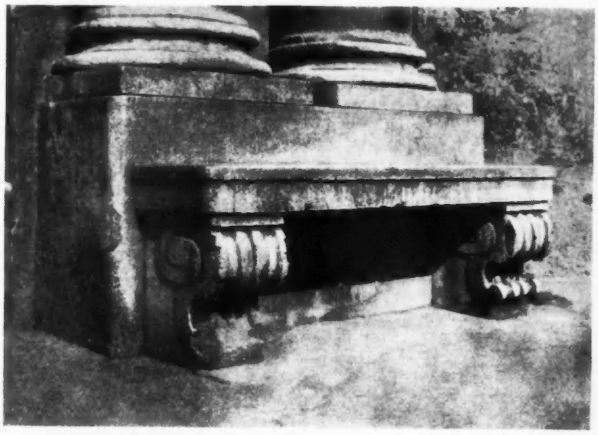
		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	6
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper from	,,	2	9

Supplement to THE ARCHITECTS' JOURNAL for June 8, 1933

BAROQUE DETAILS FROM S. GERMANY

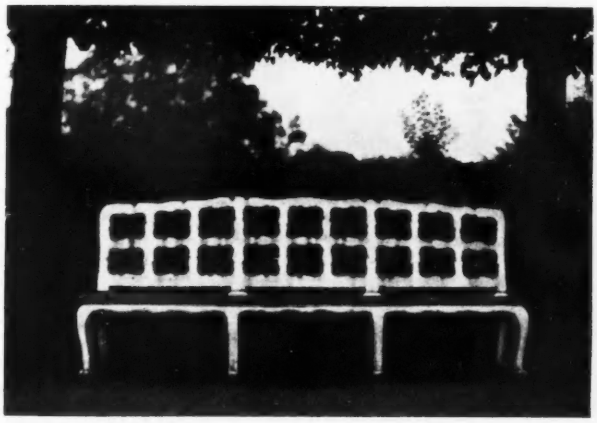
MEASURED AND DRAWN BY R. BANKS AND C. Y. KOH

SEAT OUTSIDE THE RESIDENZ, SALZBURG



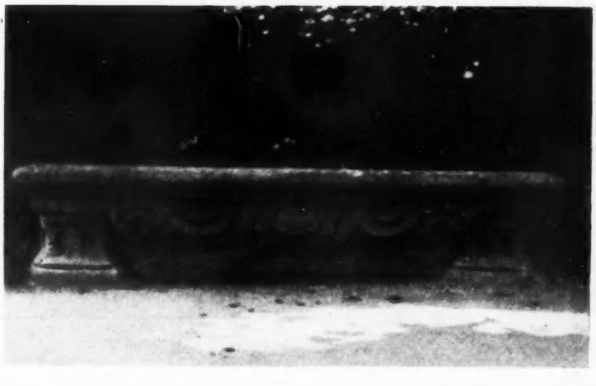
This is one of a pair attached to the bases of the columns which flank the entrance archway of the main façade of the Residenz completed in 1710. The seat is composed of two consoles which hold up a solid piece of marble. The lower portions of the supports have not been very kindly treated, and show the results of having been chipped by passing pedestrians.

WOODEN SEAT, VEITSHÖCHHEIM, LOWER FRANCONIA



Wooden seats were evidently designed in conjunction with the circular arbours, one of which is also illustrated in this Supplement, as the curvature is the same, and they fit the positions that would have been allotted to them. Their design is similar to that here shown, which is of one of those placed at regular intervals along the main avenue, formed of clipped lime trees, with a low clipped hedge, making a continuous background behind them. They are painted white with green beads, which accentuate the curves of the members.

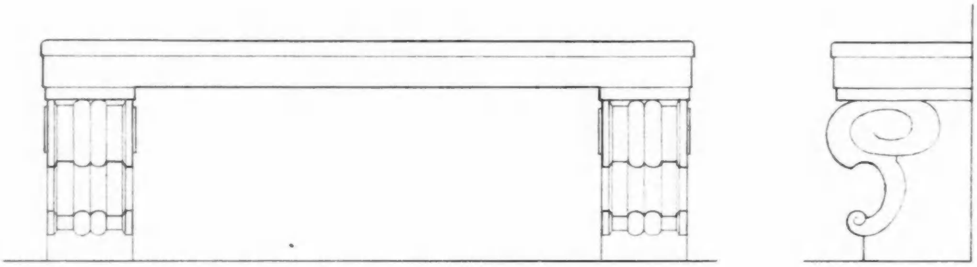
STONE SEAT, VEITSHÖCHHEIM



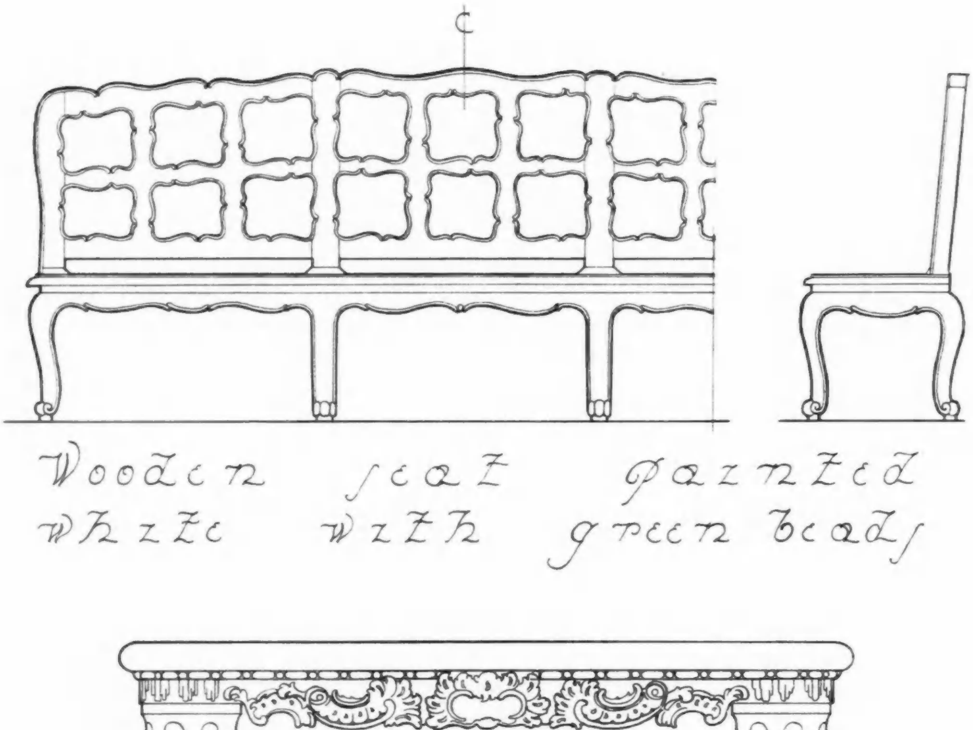
The stone seats are typical of the period, and compare favourably with those at Schloss Seehof, which reach a high level in design. They are placed in the grottos with the statuary, and were carved by the following sculptors: J. P. Wagner, J. W. van der Auvera, and F. Dietz.

FOR DRAWINGS OF THE SEATS AND OF THE ARBOUR, SEE OVERLEAF

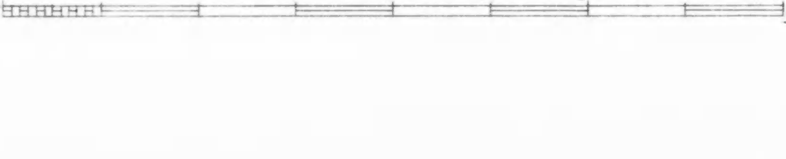
STONE SEAT OUTSIDE THE RESIDENZ SALZBURG



GARDEN SEATS VEITSHÖCHHEIM



Wooden seat painted
white with green beads

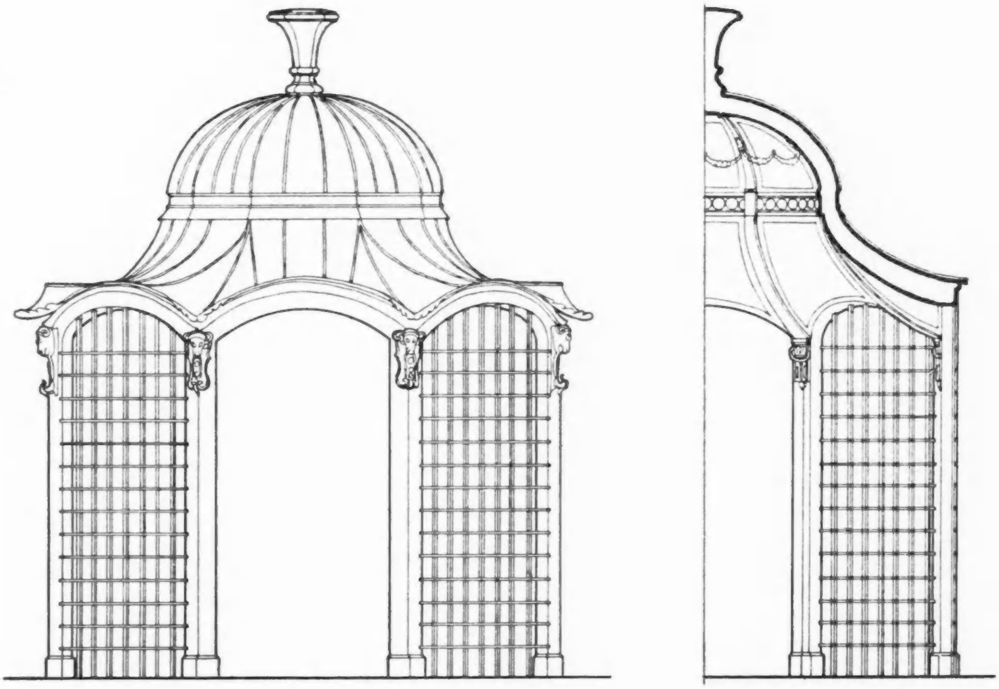


Inches
12
6
0
1
2
3
4
5
6
7
Feet

Supplement to THE ARCHITECTS' JOURNAL for June 8

GARDEN ARBOUR

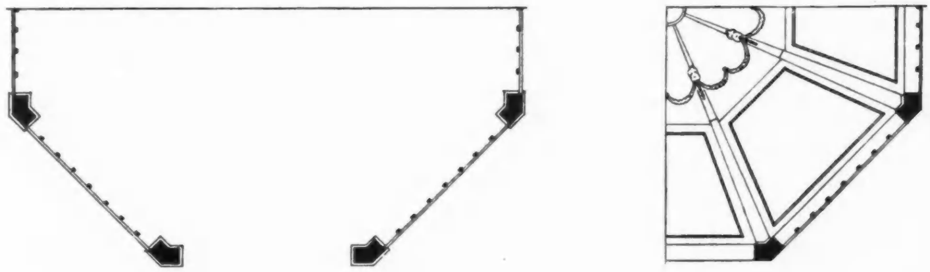
VEITSHOCHHEIM 1763-75



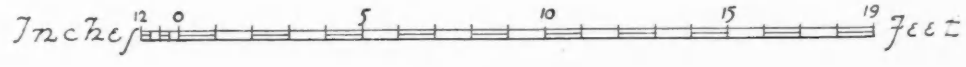
Elevation

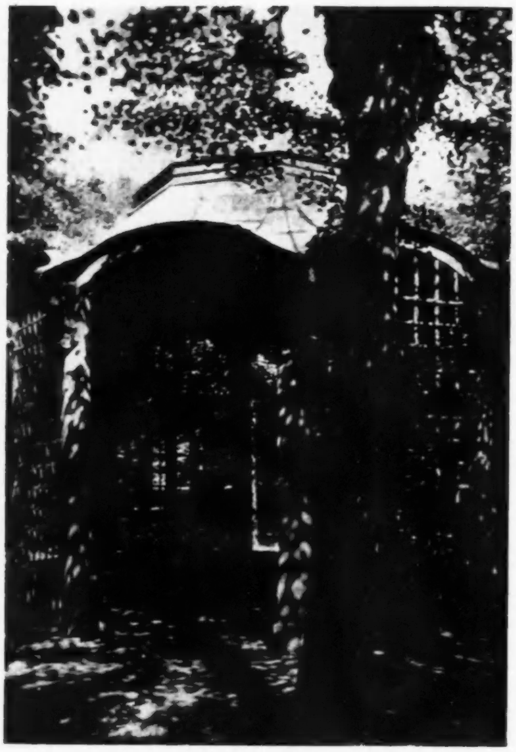
Section

WOOD STRUCTURE WITH COPPER ROOF AND PLASTER CEILING



Plans


Inches
12
0
5
10
15
19
Feet



ARBOUR AT VEITSHOCHHEIM

The house was built as a country residence for the Prince-bishops of Würzburg by Antonio Petrini about 1680; rococo wings were added later by Johann Balthasar Neumann in 1753. The formal gardens, immediately round the house and the outer gardens, including the lakes, grottos and " ruins," were designed in the Franco-Italian style and built during 1763-1775.

The arbour is situated amongst a group of silver birch trees which form a square block in part of the outer gardens, and are surrounded by clipped hedges. It is octagonal on plan, with entrances on two opposite sides, the supports being at each angle with a light trellis filling. The roof is curved and covered with copper, being surmounted by a vase of the same material. The ceiling, which is plastered, partially follows the line of the roof, the curved portions being divided up into bays, which are decorated in relief plaster and coloured.

Originally the woodwork was probably painted, as are the two other arbours and wooden garden seats.

Notes based on the London Building Acts (Amendment) Act 1925.

STAIRS FOR GENERAL BUILDINGS .(excluding theatres, cinemas, schools, etc)..

NOTES AND TABLES OF LENGHTS AND WIDTHS OF STAIRS . .

1. Stairs having a clear width of 6'0" or more must have a central handrail. . .
2. above 700 persons : 1 stair, clear width to be 6'6" or 2 stairs, clear width each to be 4'4"..

	1 stair	2 stairs
800	7' 0"	4'8"
900	7' 6"	5'0"
1000	8' 0"	5' 4"
1100	8' 6"	5'8"
1200	9' 0"	6'0"

3. If 2 stairs are provided where only 1. is *required*, the clear width of each must be equal to 2/3 of the clear width *required* for one stair.
4. "clear width" is measured between finished walls.
5. maximum riser .. 7½" minimum tread .. 10" minimum clear width. 3'6"..

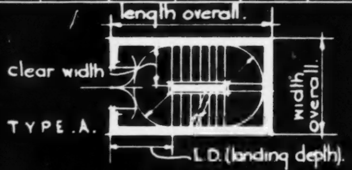
TABLES OF LENGTH AND WIDTH .

In the following tables walls have been taken at 9". finish at 3/4" and newel walls at 6" . .
If 4½" walls are permitted deduct 4½" from the overall length and 9" from overall width .

TYPE .A. front entry.

If doors are not central increase the overall length by 1" for every foot of clear width of stair
If the risers on the landing are omitted add 10" to the length.

NUMBER OF PERSONS.	CLEAR WIDTH	OVERALL WIDTH.	OVERALL LENGTHS OF STAIRS FOR HEIGHTS FLOOR TO FLOOR FROM 9'0" TO 14'0"											
			9'0"	9'6"	10'0"	10'6"	11'0"	11'6"	12'0"	12'6"	13'0"	13'6"	14'0"	L.D.
0. - 200	3'6"	9'3"	14'11"	14'11"	14'11"	15'9"	15'9"	16'7"	16'7"	16'7"	17'5"	17'5"	18'3"	5'6"
200 - 400	4' 6"	11'3"	17'4½"	17'4½"	17'4½"	18'3½"	18'3½"	19'1½"	19'1½"	19'1½"	19'11½"	19'10½"	20'9½"	7'0"
400 - 500	5'0"	12'3"	18'6½"	18'6½"	18'6½"	19'4½"	19'4½"	20'2½"	20'2½.	20'2½"	21'0½"	21'0½"	21'10½"	7'8"
500 - 600	5'6"	13'3"	19'9½"	19'9½"	19'9½"	20'7½"	20'7½"	21'5½"	21'5½"	21'5½"	22'3½"	22'3½"	23'1½"	8'4½"
600 - 700	6'0"	14'3"	21'0"	21'0"	21'0"	21'10"	21'10"	22'8"	22'8"	22'8"	23'6"	23'6"	24'4"	9'1"
700. and upwards see notes above.														
Number of risers			15.	16.	16.	17.	18.	19.	20.	20.	21.	22	23	
Rise in inches			7.	7·2.	7·5	7·4.	7·35	7·25	7·2.	7·5	7·45	7·35	7·2	

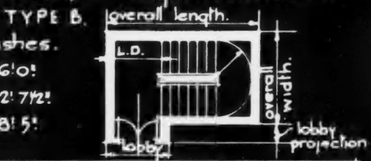


TYPE .B. side entry.

If the wall face in the lobby does not line with the riser face (as shown). landing dimension must be increased by the difference

Dimensions used in the table below of the lobby with 9" walls & 3/4" finishes.

stairs clear width :	3'6"	4'6"	5'0"	5'6"	6'0"
lobby projection :	1' 4½"	1'10½"	2'1½"	2' 4½"	2' 7½"
lobby width :	5' 1"	6' 11"	7' 5"	7' 11"	8' 5"



NUMBER OF PERSONS	CLEAR WIDTH	OVERALL WIDTH	OVERALL LENGTHS OF STAIRS FOR HEIGHTS FLOOR TO FLOOR FROM 9'0" TO 14'0"											
			9'0"	9'6"	10'0"	10'6"	11'0"	11'6"	12'0"	12'6"	13'0"	13'6"	14'0"	L.D.
0. – 200	3'6"	9'3"	14'5"	14'5"	14'5"	15'3"	15'3"	16'1"	16'1"	16'1"	16'11"	16'11"	17'9"	5'1"
200 – 400	4'6"	11'3"	16'5"	16'5"	16'5"	17'3"	17'3"	18'1"	18'1"	18'1"	18'11"	18'11"	19'9"	6'1"
400 – 500	5'0"	12'3"	17'5"	17'5"	17'5"	18'3"	18'3"	19'1"	19'1"	19'1"	19'11"	19'11"	20'9"	6'7"
500 – 600	5'6"	13'3	18'5"	18'5"	18'5"	19'3"	19'3"	20'1"	20'1"	20'1"	20'11"	20'11"	21'9"	7'1"
600 – 700	6'0"	14'3"	19'5"	19'5"	19'5"	20'3"	20'3"	21'1"	21'1"	21'1"	21'11"	21'11"	22'9"	7'7"
700 and upwards see notes above.														
Number of risers			15	16	16	17	18	19	20	20	21	22	23.	
Rise in inches			7.	7·2	7·5	7·4.	7·35	7·25	7·2	7·5	7·45	7·35	7·2.	

General notes for stairs in blgs generally (excluding Cinemas and theatres.).

1. Stairs to be of fire resisting constructn
2. . . . ventilated to the satisfaction of the D.S.
3. . . . cut off from the bldg by F.R. doors
4. . . . entered in the direction of descent
5. . to have treads not less than 10" wide.
6. . . . risers not more than 7½" high.
7. . . handrails on both sides.
8. . . . chased into newel walls at landings.
9. . . legal width measured to finished faces of walls
10. . . to have clear width between leaves of doors when open equal to clear width of stair.
11. . . . F.R. doors (1¾" H.W.)
12. . . doors in 2 leaves & self closing
13. . . not more than 15 risers in one flight.
14. . . no winders. & uniform treads.
15. . . landings & steps full width of stairs.
16. . . 2'6" between door & step at landings

INFORMATION SHEET : ROUGHING IN DIMENSIONS FOR STAIRS : GENERAL BUILDINGS.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

INFORMATION SHEETS

• 21 •

GENERAL BUILDINGS STAIRS

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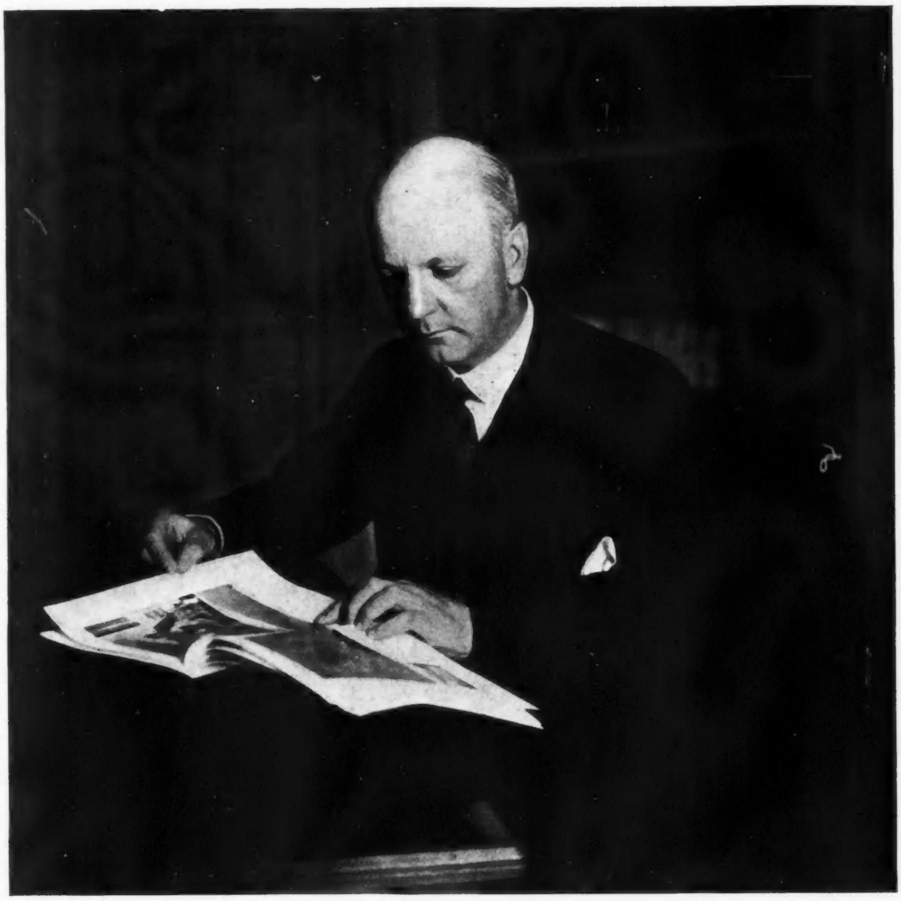
THIS week's Sheet is the fifth of a series of nine dealing in detail with the layout and construction of staircases. It summarizes the requirements in structure and capacity laid down under the Building Acts for stairs in general buildings, other than places of public entertainment.

The following is a full list of the subjects previously issued :—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes.
17. May 10—Stairway Diagrams.
18. May 17—Risers for Stairs.
19. May 24—Stair Risers and Flights.
20. June 1—Public Exit Stairs.

THE NEW R.I.B.A. PRESIDENT

SIR GILES GILBERT SCOTT, R.A.

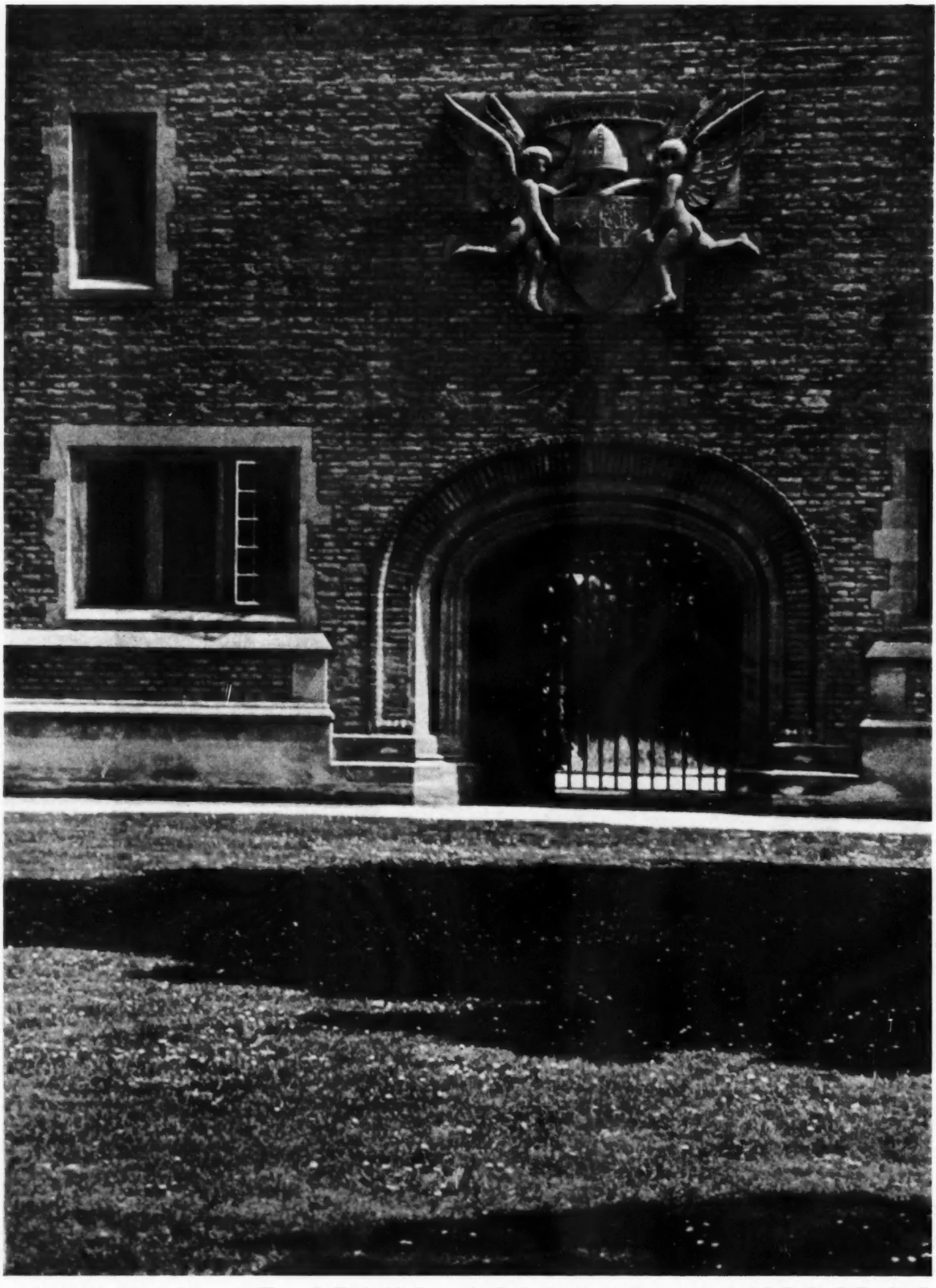


ON Monday last, at a general meeting of the R.I.B.A., it was officially announced that Sir Giles Gilbert Scott, R.A., had been elected President of the Institute for the ensuing session, in succession to Sir Raymond Unwin. His name was the only one nominated for the office.

Sir Giles was articled to the late Temple Moore, F.R.I.B.A., and commenced private practice in 1902. And in the same year he won the competition out of which his life work and Liverpool's Anglican Cathedral is still growing.

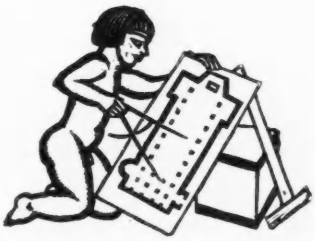
He may have the happy fortune to see the last stone of his design placed in position. He is now 53, and his Cathedral, begun some 30 years ago, may be finished in another 25. Of the £300,000 appealed for in 1924 to pay for the portion now building—the lower part of the tower to the height of the belfry floor, and the nave transepts—all has been obtained with the exception of some £60,400. In five or six years this work should be finished, and then it will remain to add the nave, the belfry and the great tower.

What a sound in the ears the Nunc dimittis *would have for the architect who saw the consummation of such a scheme, begun in youth and ended in old age!*



ARCHWAY AT JESUS COLLEGE, CAMBRIDGE

This archway, with sculpture by Eric Gill, is the centre feature of the new addition By P. Morley Horder; an addition imbued as faithfully as any collegiate building in Cambridge with the æsthetic and social traditions of the University, though breathing an individual atmosphere. Harold Tomlinson, in the article which begins on page 785, shows how, in this addition, a satisfactory new use of brickwork has been made in the linking up of two buildings of different colours.



ROCKS AHEAD FOR BUILDING SOCIETIES

THE International Congress of Building Societies has concluded its deliberations, and it is now possible to consider the future of the British Societies. Sir Hilton Young, the Minister of Health, last week announced that the tide is at the full, with a favouring breeze; that the conjunction of cheap money, cheap materials, and augmented Building Society advances is not like to recur. He concluded his nautical metaphor by wishing the Societies and the private builders, whose building of working-class houses is to be financed with joint guarantees from both the Government and the local authorities, "a successful and prosperous voyage."

In his message there was no warning of any rocks ahead. But no one studying the illuminating criticisms made during the course of the Congress can fail to descry on the horizon the menace of perilous reefs, hidden for the time by a haze of political optimisms.

We have indeed heard so much during the last few days of the influence for good exercised by not less than one million home-owners, created mainly by Building Society facilities, and have been so overwhelmed by the stupendous figures of the assets of the Societies, that it is little wonder that the public generally expect a prosperous voyage and no wrecks.

Nevertheless there are the rocks ahead. Sir Enoch Hill, who presided with so much dignity over the Congress, and who for a dozen years has been Chairman of the National Association of Building Societies, showed his statesmanship by offering a warning. He is a wise pilot, and it will be well if the captains of the various craft, 367 Societies in all, pay due regard to his words. He acknowledged that there had been "a lamentable breakdown in the co-operative spirit during the last two years," and boldly confessed that "in his long experience he had not previously seen anything approaching the degree of competition, almost regardless of courtesy, as between one Society and another, which had been experienced during the past year." Sir Enoch was not extravagant in his expressions of admiration for the Government's latest Housing Act, and, in fact, spoke of it in rather half-hearted terms.

Sir Herbert Samuel, speaking at the Annual Dinner of the National Association of Building Societies at the Guildhall last Thursday, also gave a hint that all was not smooth sailing. He emphasized the necessity for maintaining high standards of "honest administration and financial prudence." Evidently Sir Herbert realizes the peril of a badly-managed Society crashing upon the rocks of bankruptcy.

Professor J. H. Jones, of Leeds University, one of the sanest economists of the day, pointed out another rock ahead. In his speech to the International Congress, he made no secret of the danger to which the Building Societies may shortly be exposed, for he said, "it is certainly possible that the nation will soon be faced with a big demand for industrial capital and an appreciable rise in the rate of interest." Those Societies which have attracted the capital of the relatively wealthy may be faced with the danger of large-scale withdrawals, and in that case advances to fresh borrowers would need to be seriously curtailed.

The rock of cut-throat competition is a matter for the Societies themselves to avoid. The rock of financial disaster has already been marked on the chart by the Chief Registrar of Friendly Societies. There is still a third rock ahead in which architects are particularly interested. Of the peril of disregarding the standards of layout and design, Sir Raymond Unwin discoursed with verve and pungency last Friday. It remains to be seen whether the captains of the Building Societies will take to heart his advice. It was not welcomed by those who wish to build with the minimum of restrictions, and regardless of good taste.

It must be remembered that local authorities, before they decide to join in giving any guarantee, are held responsible, under the 1933 Act, for safeguarding local amenities and watching over the design of new houses built to be let. Building Societies, from the very nature of their constitution, cannot ensure the necessary control over questions of layout and planning, internal and external; yet these are matters of vital importance to everyone concerned.

Public taste is changing, and we hope improving. Already the half-timber style of suburban villa has reached saturation point. If the new houses are designed in the worst style of the ignorant and speculative builder, it is probable that by 1953 they will become empties. If their construction is shoddy, they will be a bad investment. Under the period of repayment at present proposed, the liabilities on the new houses will extend for at least 30 years, and before that they may be out of date and unpopular. This is indeed a rock ahead on which those Societies which drive their vessels forward, regardless of the signs of the times, may founder.

The opportunities presented to the Building Societies under the current favourable conditions are without precedent. But in housing, as with a ship setting out on a voyage, the launch is the only time when self-congratulatory speeches are permissible. After that the captain of the ship is responsible. During the voyage, with all its dangers, known and unknown, to encounter, he alone is accountable for keeping a continuous look-out so that he may bring his vessel safely into harbour. We wish the Building Society movement *bon voyage*, and trust that it will escape the three rocks ahead, which are now marked clearly on the chart by men of experience and foresight.

H.R.H. Prince George, K.G., G.C.V.O., Patron of the Exhibition of Industrial Art in Relation to the Home, which he is to open at Dorland House on Tuesday next, June 20.

NOTES & TOPICS

THE ARCHITECTURE OF PAIN AND PLEASURE

THE broadcast talks on " Design in Modern Life " are getting a more architectural flavour. On Tuesday the ninth talk of the series was between Mr. Robert Atkinson, F.R.I.B.A., and Mr. John Gloag on the design of public buildings.

*

Schools, theatres, cinemas and hospitals were scrutinized in turn, and most listeners must have been left with a feeling of mild wonder that it was possible for the majority of such places to exist at all in view of the shortcomings Messrs. Atkinson and Gloag exposed with such zest. Having agreed, with regard to schools, that the whole architectural character was dominated by the teaching system, Mr. Gloag suggested that " the happy-go-lucky-go-as-you-please-no-repression school would be as well off in a tent or a tin hut."

*

Mr. Atkinson yearned for the lost gaiety of the theatre, when the audience had some spirit of fun, and corrected, somewhat sharply, his questioner's suggestion that the old-fashioned spirit of fun in the audience had necessitated the employment of professional chuckers-out. Mr. Atkinson's sketch of the changes that have occurred in theatre design since the beginning of the century was penetrating and lucid.

*

The matter of advertisements outside theatres was discussed vigorously, and this situation was revealed. A theatre is built to look like a near-Roman temple because the site regulations insist on a classic façade ; but this façade disappears behind posters and electric signs because no regulations are made about the display of such things.

*

Of such is the kingdom of commerce.

*

Hospitals suffer from what Mr. Gloag described as " the top hat and frock coat and dickey tradition that used to haunt the medical profession." Doctors, whose training fits them for observation and deduction, are rather ill-equipped for the consideration of creative design.

*

Medical technique changes rapidly, but the old conventional and wasteful hospital forms are often perpetuated, while, in Mr. Atkinson's words, " what is required is permanent floors and structural bones, and movable partitions which can keep pace with changes. . . . "

*

" THE OLD LADY SHOWS HER MUDDLES "

A correspondent, describing to me the Milan Exhibition, illustrated in last week's JOURNAL, writes of the British Exhibit :—" . . . our section simply made one blush with shame. It was just like a window of [*here the names of two big London stores*] and included Scotch plaids, golf clubs (!) and leather bags (! !). I should think the Overseas Trade Department could never have noticed the words *Decorative Arts* in the title of the Exhibition. It seems most pathetic. . . ."

*

Somebody else who has been there tells me that the objects shown are as inappropriate to Italy as anything could be. " Squash " racquets ! (There are, I understand, two courts in the whole of Italy.)

*

Another " feature " is some very fine silk work—in Milanese silk.

*

But it is not really fair to blame the Department of Overseas Trade—not wholly, at least. Because it is a Government department, and has no power to tell this or that manufacturer that his goods are not suitable to be shown as representing either Britain or its Decorative Art. The D.O.T. has to get the British section together ; under our feckless system nobody has the authority *and* discrimination *and* freedom from ultimate responsibility, to be able to whip up the laggard manufacturer of good things and persuade him to show, any more than to be able to cast out the footler.

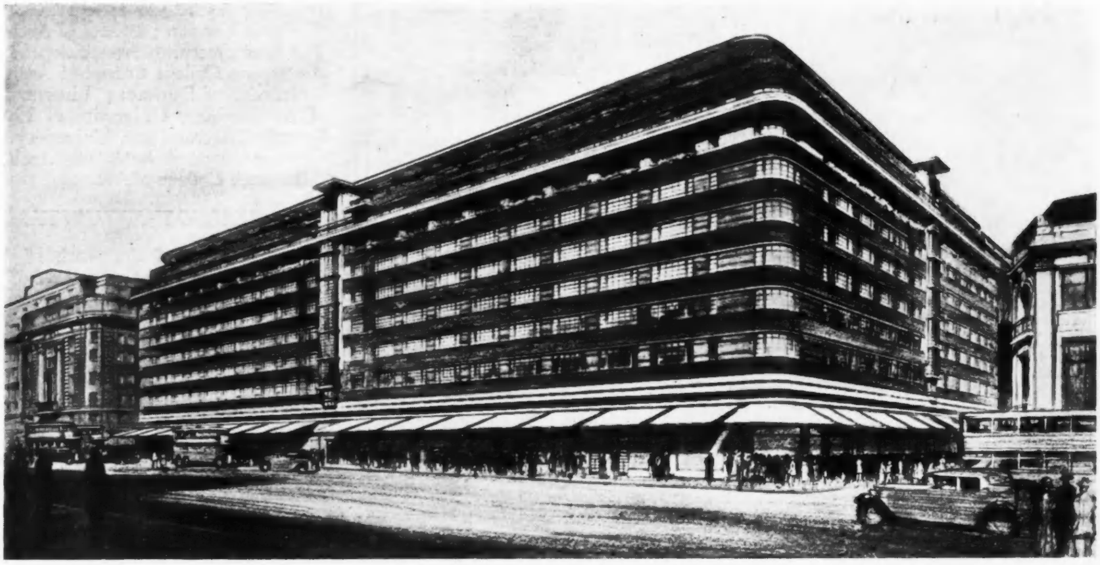
*

A SPECIAL ISSUE ON SLUMS

THOUGH much that is picturesque or otherwise has been written about the SLUMS, no attempt has yet been made to carry out a national slum survey.

This, with such figures and material as are available, THE ARCHITECTS' JOURNAL *is now attempting to do, in the belief that the onus of providing the nation with actual data regarding slum conditions and housing needs lies with the architectural profession.*

The first results of the survey, dealing with the six biggest towns of Great Britain (excluding London, which needs an issue to itself) will be published on Thursday, June 22, the opening day of the R.I.B.A. Conference, in a special issue on the SLUM PROBLEM—thus developing one of the main suggestions put forward in the New Year issue on National Planning.



A perspective drawing, by J. D. M. Harvey, of a block of shops, with flats above, which is to be erected by Messrs. Holland and Hannen and Cubitts, Ltd., on a site of 81,000 sq. ft., bounded by Oxford Street, Old Quebec Street, Bryanston Street, and Portman Street, W.1. The architects are Sir John Burnet, Tait and Lorne. On the ground floor, fronting Oxford Street, Old Quebec Street and Portman Street, there will be spacious shops with basements. Above, the building will rise to eight stories, devoted to small service flats. The entrance to the flats will be in Bryanston Street; along this front there will also be a garage for private cars. Demolition of the existing buildings has been commenced. It is expected that the new structure will be completed at the end of next year.

Let us watch Dorland House. Between the " unofficialness " of this and the " authoritativeness " of the B.I.F. may lie the ideal solution to the problem.

*

A GIANT STRIDE IN EXHIBITIONS

For the answer, of course, to criticism of English exhibition policy is that up to the opening of the new Dorland House Exhibition we cannot be said ever to have had a policy at all.

*

And it depends to some extent upon how well this show is done whether the policy we are about to have is well founded or not. To some extent only, because, good or indifferent, the next exhibition after this will be better still, and so on, until we really *know* how to do it.

*

The great point about this exhibition is that it is the first attempt at a *selective* exhibition, and that, my masters, is a giant's step in the right direction. I can't say how eagerly I await the opening. It will—it *must* be a great day for British industry.

*

WANTED: A TELLING CONFERENCE PROGRAMME

I wish that the R.I.B.A., when it meets in yearly conference, would make great announcement of the subjects about which it is to confer—and then in sober earnest set about its conference.

*

Slum clearance and speculative building might be two fairly engrossing headings for hot discussion, but in the invitations I missed the urgent note that might have sent me hurtling to Cambridge, and marked all too keenly the price of dining with my elders and betters.

*

One ray of hope: the camp, a new institution of a type most encouraging and, I hope, permanently to be adopted wherever pleasant circumstances permit.

ASTRAGAL

THE ARCHITECTS' DIARY

Thursday, June 15

ROYAL ACADEMY, Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.1. Annual Exhibition. Until Saturday, June 24. 10 a.m. to 8 p.m. (Saturdays: 10 a.m. to 12 noon.) 10 *a.m.*

INSTITUTION OF STRUCTURAL ENGINEERS. At Birmingham. Summer Meeting. Until June 16. 10 a.m.: At the James Watt Memorial Institute. Gt. Charles Street, Birmingham. " The Construction and Equipment of Some Factories at Home and Abroad." By H. C. Johnson. Afternoon: Visits to Works. 10 *a.m.*

LONDON SOCIETY. Visit to the Works of Holophane, Ltd., *Elverton Street, Westminster, S.W.* 2.45 *p.m.*

Friday, June 16

HANTS. AND ISLE OF WIGHT ARCHITECTURAL SOCIETY. At the Castle, Winchester. 3.30 p.m.: Council Meeting. 6.15 p.m.: General Meeting. 3.30 *p.m.*

Saturday, June 17

Sunrise 4.42 a.m. Sunset 9.19 p.m.

ROYAL SANITARY INSTITUTE. At Blackpool. Forty-fourth Congress. Until June 24.

LONDON AND MIDDLESEX ARCHÆOLOGICAL SOCIETY. Visit to Gloucester. Leave Paddington at 10.40 a.m.

Monday, June 19

BRITISH SCIENCE GUILD. At the Mansion House, E.C.4. " Some Problems of British Forestry." By Prof. R. S. Troup, D.SC. 4.30 p.m.

Tuesday, June 20

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. At Llandudno. Summer Meeting.

INSTITUTE OF LANDSCAPE ARCHITECTS. At the Horticultural Hall, Westminster, S.W. " Plans of London's Parks." By Captain F. W. Parker. 3.30 *p.m.*

Wednesday, June 21

R.I.B.A. At Cambridge. Annual Conference. An Informal Reception will be held in the *Hall of Peterhouse, Cambridge.* 8 to 11 p.m. 8 *p.m.*

SOCIETY OF CHEMICAL INDUSTRY. At the Science Museum, South Kensington, S.W. " Plastics and the Architect." By Raymond McGrath, A.R.I.B.A. 4.30 *p.m.*

LONDON SOCIETY. Visit to Barnard's Inn, High Holborn, W.C. 3 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

A Doctorship of Architecture? 778

John J. Blower's ex-office-boy reprimanded 780

There is a growing desire to make Cambridge a manufacturing centre . 785

A company is at present engaged in attempting to recover King John's crown and regalia from the Wash .. 794

Skilled planning and design saves more than the fees with which it is recompensed 797

This year Ian MacAlister completed a quarter of a century as Secretary of the R.I.B.A. 797

A library with 47 miles of bookshelves .... *Supplement*

●

THE B.I.F., BIRMINGHAM

The extensions to the British Industries Fair grounds and buildings at Castle Bromwich, Birmingham, which will increase the size of the Fair by two-and-a-half acres to fifteen acres, have been designed by and will be carried out under the supervision of Mr. C. Elliott, B.SC., of Birmingham.

THE PROBLEM OF THE SLUMS

The annual meeting of the Mansion House Council on Health and Housing was held at the Mansion House on Monday last. The Lord Mayor (Sir Percy Greenaway) presided.

The Bishop of Winchester, chairman of the Council, in his annual address, said housing schemes had failed too often because the new houses were built too far from the wage-earner's place of work, and the rents were in many cases too high. He urged the encouragement of public utility societies and private enterprise. Although the erection of new houses on expensive land often raised the local rates, it was preferable to the appalling scandal of slums

TOWN HALL FOR BRIGHTON?

A plan for a new £250,000 town hall, facing the sea-front between the two piers, is now being considered by the Improvements Committee of the Brighton Town Council.

NATIONAL ASSOCIATION OF BUILDING SOCIETIES

Sir Enoch Hill, at the annual meeting of the National Association of Building Societies, held last week, announced his retirement from the chairmanship of the Association, which he has held for twelve years.

Extracts from Sir Raymond Unwin's paper on "The Value of Good Design in Dwellings," read at the same meeting, are given on page 797 of this issue.

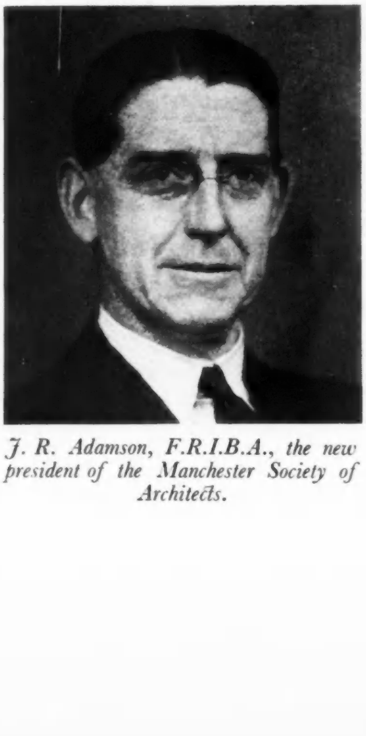
The circulars recently issued by the Ministry of Health, calling upon local authorities to demolish the slums in urban areas, and to provide adequate and safe water supplies in rural areas, present an opportunity for a great local effort on the part of supporters of the Building Industries National Council. Both these circulars call attention to national problems which depend for their solution very largely on local opinion. All those with the interests of the nation and of the building and public works industry at heart should support the Special Committee for Public Relations by building up an irresistible mass of local public opinion in favour of these essential works.

Subscriptions to the fund of the Special Committee for Public Relations of the Building Industries National Council should be addressed to Mr. Oswald Healing, F.S.I., *at 5 Duke Street, Adelphi, W.C.2.*

ROME SCHOLARSHIP IN ARCHITECTURE

The designs submitted in the Final Competition for the Rome Scholarship in Architecture will be on exhibition in the Galleries of the R.I.B.A., 9 Conduit Street, W.1, between the hours of 10 a.m. and 8 p.m. (Saturdays 10 a.m. and 5 p.m.) from June 21 to July 1, 1933.

This year the subject of the competition was "A Road House." Eleven students, drawn from the following schools, took part: Bartlett School of Architecture, University of London; School of Architecture, The Architectural Association, London; Armstrong College School of Architecture, University of Durham; Liverpool School of Architecture, University of Liverpool; School of Architecture, University of Manchester; and School of Architecture, Edinburgh College of Art.



J. R. Adamson, F.R.I.B.A., the new president of the Manchester Society of Architects.

WALCOT EXHIBITION

An exhibition of the work of William Walcot is being held at 5 Grafton Street, W.1, by courtesy of Mr. Longden, of Messrs. Martyn, during the next few weeks. The exhibition was opened unofficially on Monday, and the brilliant versatility of the artist is seen in his work, for he shows paintings, etchings and town planning schemes. His plan for the development of London is of particular interest to architects.

EXHIBITION OF PORTRAITS

A loan exhibition of portraits by Philip A. de László, M.V.O., (in aid of the Artists' General Benevolent Institution) will be held at Messrs. M. Knoedler and Co. Inc., 15, Old Bond Street, W.1. from June 20 until July 22 (10 a.m. until 6 p.m. Sats. 10-1).

THE BUILDING CENTRE

The pair of cottages, which won for their architect, Mr. N. E. Leeson, the first place in the Building Centre Competition, have been erected on a site in front of Bush House, Strand, W.C. The opening ceremony is to take place today. A housing exhibition is also to be held at the Building Centre from Friday next.

REGIONAL PLANNING FOR BLACKBURN AREA

A conference of the various authorities in the Blackburn district of the region which originally comprised the North-east Lancashire Joint Town-planning Area has recommended the establishment of a joint committee to prepare a town-planning scheme for the Blackburn area. This (states *The Manchester Guardian*) embraces the county borough of Blackburn, the boroughs of Accrington, Clitheroe and Darwen, the urban districts of Church, Clayton-le-Moors, Great Harwood, Longridge, Oswaldtwistle and Rishton, and the rural districts of Blackburn, Preston, Clitheroe and part of Bowland.

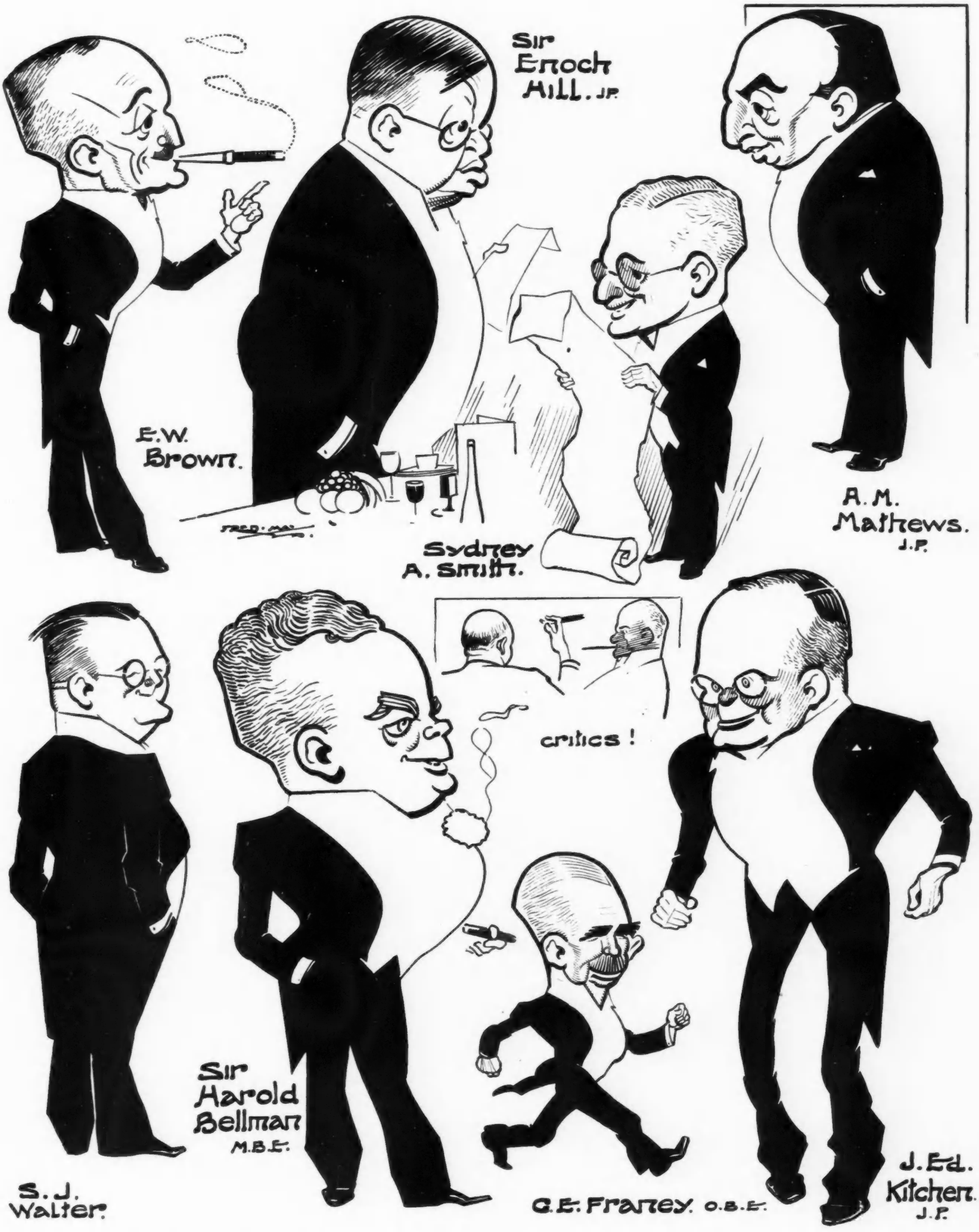
STREET ARCHITECTURE

Mr. B. A. Millar, A.R.I.B.A., presided at a discussion held at the Ancient Chapel of Toxteth, Liverpool, last week, following the broadcast talk by Messrs. Frank Pick and John Gloag on "The Design of the Street."

Mr. Millar said the reason why the great movement towards design of streets is here is to counteract all the bad taste which is the direct result of that awful period which we associate with the industrial revolution of the last century, when street design was at its worst.

To-day, he continued, we had got away from the parochial outlook of the last century, and we thought design was

THE BUILDING SOCIETIES CONGRESS


Sir Enoch Hill. J.P.
E.W. Brown.
Fred May
Sydney A. Smith.
A.M. Mathews. J.P.
critics!
S.J. Walter.
Sir Harold Bellman M.B.E.
G.E. Franey. O.B.E.
J. Ed. Kitchen. J.P.

A few well-known members, as seen by Fred May during the banquet of the International Congress of Building Societies, held at the Guildhall last week.

absolutely necessary to every part of human life, and of the utmost importance in street architecture. We now recognized what a great deal we owed in design to the Continent, and we ought to organize design in industry in such a way that the designer had a hold on everything.

DUTTON HALL

Dutton Hall, the remains of a Cheshire mediæval mansion near Northwich, is being dismantled for re-erection two hundred miles away in Sussex. It has been bought by Mr. J. A. Dewar, and the work of removal is being supervized by Mr. Guy Dawber, A.R.A.

GATESHEAD'S FIRST METHODIST CHURCH

Remains of what is believed to be one of the oldest Primitive Methodist Chapels in Gateshead have been revealed during the demolition of property in Mulgrave Terrace under a slum clearance scheme. It is understood that the building was started in 1790 and finished in 1838.

£150,000 SCHEME

The Cheltenham Town Council have approved plans for the erection, by private enterprise, of a new building on the site of the present Winter Garden. The scheme is estimated to cost £150,000.

PUTNEY HOSPITAL

The governors of Putney Hospital, S.W., have sanctioned an extension scheme, to be begun in about two months' time, which will cost nearly £25,000.

MARBLE COMPARISONS

A firm quarrying marble in Penang has approached the Imperial Institute to ascertain how the local product of the Federated Malay States compares with Italian marble. Practical trials have been carried out by London marble experts, who have reported that the marble, when used for flooring, withstood wear satisfactorily, and would also be suitable for tablets or memorials for erection indoors. It was said to be hard, but coarser grained and more open than statuary marble, and therefore liable to be more easily soiled.

GLASGOW HOUSING EXHIBITION

The Glasgow Corporation are again promoting a housing and health exhibition, which will take place in the Kelvin Hall from October 4 to 28. It will constitute the eleventh of the series run by the civic authority.

LIVERPOOL MAN'S APPOINTMENT

Mr. S. L. G. Beaufoy, chief town planning assistant to the City Engineer of Liverpool, has been appointed a Ministry of Health Inspector of Housing and Town Planning.

BRADFORD'S NEW CITY ARCHITECT

Mr. J. A. Fletcher, F.R.I.B.A., who has been Deputy City Architect for the Bradford Corporation for 23 years, has been recommended for appointment as City Architect in succession to Mr. W. Williamson, F.R.I.B.A., who retired some eighteen months ago.

ARCHITECTURE
AS A
TRADE

Arriere-voussure
bombée et reglée auec
vne lunette pratiquee dans
vn berceau

[*By ICONOCLAST*]

3. Organization and the Institute

[*In last week's article Iconoclast aimed some shrewd blows at the scale of charges. Briefly, he considered that a reduction from the customary six to five per cent.—to be inclusive, moreover, of incidental and out-of-pocket expenses—would make for better business. Now he turns to an examination of weak points in the organization of the profession. Once more, our agreement with everything our contributor says should not be taken for granted, refreshingly frank as we believe all will find it.*—ED., *A.J.*]

IT is both fashionable and popular to cast stones at the Institute; but the fact remains that, with all its faults, it is the obvious heart and core of any possible organization within the profession. Membership of it may not count for so much as in years gone by, but still remains the highest qualification an architect can hold unless he can secure one of the rare places upon the Academy.

We cannot, therefore, cast aside our consideration of the Institute as we may have to do of the Registration Act. Its faults may not be past mending, and it is certainly worth while seeing what can be done to make this fine nucleus of a trade union more effective in the benefits it can gain for its members.

The essence of an effective trade union must be that membership in itself is a mark of competence, and protection is given to its members against inefficient non-members. To a point, membership after qualification by examination was as good a rough-and-ready test of competence as human ingenuity could devise, but qualification has been to some extent depreciated from two causes.

The first is the concession to schools whereby a five-year student may qualify after passing certain internal examinations in which the examiners are the familiar masters who have trained him, subject to a nominal and generally perfunctory period of office experience, six short months in length. The degree of Associate thus ceases to be a mark of experienced competence and becomes a purely academic diploma. The other source of weakness is the admission without examination of numbers of practising architects, the work of many of whom does not justify by its quality the mark of professional distinction.

It is naturally not practical politics to cast out those who have been already admitted, but it is well worth consideration whether existing members should not be given an opportunity of qualifying either by superlative executed work, or by the passing of a further severe examination for a higher distinction than ordinary membership, and one which would declare itself as such. Whether the Royal Charter would provide an instrument in instituting a Doctorship of Architecture is a matter for the lawyers to investigate; but there is no doubt that such a degree, carefully distributed, with its title, would fulfil a discriminating purpose which would do much to remove the evils and injustices which a levelling down of qualification has brought about.

Turning to the organization of the Institute itself, it is admitted on most hands that it fails signally to reflect the mass opinions of the profession, and the admission is one of faulty organization whereby the rank and file of the distant provinces find difficulty in gaining a full dispassionate hearing. There is some excuse for the Institute being primarily a club of London architects, bearing in mind that such was actually its origin. But the excuse becomes weaker when the professed policy of the Institute of today, with the development of Allied Society work, is taken into account, though some advance in favour of the provincial architect must be conceded. But the machinery whereby the provincial architect can influence the high counsels at headquarters is still remote and less favourable than is the case with the London man. The latter has without doubt prior access to the fountain head, since his first and legitimate contact is at the General Meetings of the Institute, and his first office upon its Council and Committees. The provincial, on the other hand, must reach the same objectives by service on an Allied Society Council, possibly in some cases preceded by Chapter Committee work, from which he may attain representative work upon the Institute Council as one of a small provincial minority.

The approach to a Federal system just falls short of attainment within the present system and an inconsistency must be apparent to all who have studied the question.

The final move to restore unity to the scheme would be to form a new Allied Society to cover the only remaining area of the country still uncoloured by Allied Society jurisdiction, viz., the London area.

A Society of London Architects would have a defined and yet wide field of activity before it, which it could pursue without the distractions of provincial interests. Treated, then, as an Allied Society, its chosen would represent it upon the central federal Council, which would be a smaller and more compact body of men, each instructed by the area it represented.

Such a reform would have a number of benefits to offer. It would in the first place give the provincial majority a fair representation on the Council and remove a reproach which is generally present in the minds of this majority. It would also establish machinery whereby policy and ideas could travel up and down from member to President, ensuring that vast comprehensive schemes, the merits of which there is no time to investigate, should not be sprung upon district membership in a mature state. The usefulness of the Institute must be more complete if its policy is initiated from below rather than dictated from above, and there is no doubt that, if this principle had been established ten years ago, we should not have been landed in so many embarrassing situations as those in which we have since found ourselves on many occasions.

So far as finance is concerned it will be generally agreed that whereas the Allied Society has been generally crippled for lack of funds with which to prosecute effective work, the Institute has had far too much money to play with, a fact which accounts for many adventures of doubtful wisdom.

In the Federated system there would not be a grant from the R.I.B.A. to the Allied Societies, but the latter would be the natural collecting-box for annual subscriptions, and each would make its grant to Headquarters for Federal administration. The systematic and fair nature of such a reform must surely be apparent.

This section dealing with the reorganization of our trade union is of very great importance in the discussion, because it must be understood that the deficiences of architectural practice as a living have arisen mainly from our disorganized state. We can neither bargain nor promise so long as matters are settled for us by a few men who, though in the letter elected by a full membership, are actually chosen by a comparatively few members drawn from a few square miles of England.

Our chief task in the way of breaking ground for a more fruitful crop is, therefore, to reorganize in a business-like way, after which we can control the machinery in an equally business-like way, to serve our own interests first, and out of that healthy state give the best service possible to the public upon whom we must live.

R. I. B. A.

ANNUAL ELECTIONS

At a general meeting of the Institute, held on Monday last, the results of the annual elections to the Council and the Standing Committees were announced as follows :

PRESIDENT : Sir Giles Gilbert Scott, HON. LL.D. Liverpool, R.A.

VICE-PRESIDENTS : Messrs. William Henry Ansell, M.C. ; John Begg (Edinburgh) ; Harry Stuart Goodhart-Rendel and Maurice Everett Webb, D.S.O., M.C., M.A. Cantab.

HONORARY SECRETARY : Mr. Sydney Decimus Kitson, M.A. Cantab., F.S.A.

MEMBERS OF COUNCIL : Professors Leslie Patrick Abercrombie, M.A. Lvpl. (Liverpool) ; Stanley Davenport Adshead, M.A. Lvpl ; Charles Herbert Reilly, O.B.E., M.A. Cantab. (Liverpool) ; Albert Edward Richardson, F.S.A., and Messrs. Henry V. Ashley ; Ernest Chawner Bewlay (Birmingham) ; Herbert Tudor Buckland (Birmingham) ; Joseph Emberton ; William Curtis Green, R.A. ; Edwin Stanley Hall, M.A. Oxon. ; Philip Dalton Hepworth; Charles Henry Holden ; Henry Vaughan Lanchester ; Oswald Partridge Milne ; Howard Morley Robertson ; Leo Sylvester Sullivan ; Sydney Tatchell ; and Percy Edward Thomas, O.B.E. (Cardiff).

ASSOCIATE MEMBERS OF COUNCIL : Messrs. Cyril Arthur Farey ; Edwin Maxwell Fry; Edwin Gunn ; Richard Goulburn Lovell (Eastbourne) ; Robert Norman Mackellar (Newcastle-on-Tyne) ; John Douglas Scott; Michael John Tapper, M.C. ; Ernest Berry Webber ; and Charles Woodward.

LICENTIATE MEMBERS OF COUNCIL : Major Frederick William Rees ; Captain Angustus Seymour Reeves ; and Messrs. Howard Leslie Baker (Romford) ; George Nathaniel Kent, F.S.I. ; Francis Robert Taylor ; and Percy John Waldram, F.S.I.

PAST PRESIDENTS : Sir Banister (Flight) Fletcher, M.ARCH., F.S.A. ; and Sir Raymond Unwin.

Representatives of Allied Societies in the United Kingdom or the Irish Free State

1 : *Six Representatives from the Northern Province of England :* Messrs. James Robertson Adamson (Manchester Society of Architects) ; Leonard Barnish (Liverpool Architectural Society) ; Blakeley Rinder Gribbon (West Yorkshire Society of Architects) ; Frederick John Horth (York and East Yorkshire Architectural Society) ; John Lancashire (Sheffield, South Yorkshire and District Society of Architects and Surveyors) ; William Milburn, Junr., B.SC., F.S.I. (Northern Architectural Association).

(2) : *Five Representatives from the Midland Province of England :* Major Charles Henry Calvert (Nottingham, Derby and Lincoln Architectural Society) : and Messrs. William Thomas Benslyn, A.R.C.A. (Birmingham Architectural Association) ; Sidney Frank Harris (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects) ; Cecil Upcher (East Anglian Society of Architects) ; and one representative to be nominated by the Council of the Leicester and Leicestershire Society of Architects.

3 : *Six Representatives from the Southern Province of England :* Lieut.-Col. Reginald Fowler Gutteridge, T.D. (Hampshire and Isle of Wight Architectural Association) ; and Messrs. Hugo Ritchie Bird (Essex, Cambridge and Hertfordshire Society of Architects) ; Stanley Hinge Hamp (Berks., Bucks. and Oxon. Architectural Association;) Benjamin Priestley Shires (Devon and Cornwall Architectural Society) ; one representative to be nominated by the Council of the South Eastern Society of Architects : and one representative to be nominated by the Council of the Wessex Society of Architects.

4 : *Four Representatives of Allied Societies in Scotland, nominated by the Council of the Royal Incorporation of Architects in Scotland :* Messrs. James Alexander Arnott, F.S.A. Scot. (Edinburgh) ; Andrew Graham Henderson (Glasgow) ; Arthur Hay Livingston Mackinnon (Aberdeen) ; and William Erskine Thomson (Dundee).

5 : *One Representative of Allied Societies in Wales, nominated by the Council of the South Wales Institute of Architects :* Lieut.-Colonel Edgar Hinton Fawckner, R.E., T.D. (Newport).

6 : *Two Representatives of Allied Societies in Ireland :* Professor Rudolph Maximilian Butler, A.R.H.A. (Royal Institute of the Architects of Ireland) ; and one representative to be nominated by the Council of the Royal Society of Ulster Architects.

REPRESENTATIVES OF ALLIED SOCIETIES IN THE BRITISH DOMINIONS OVERSEAS : (nominated by the Council of each of the following) : Royal Architectural Institute of Canada (Representative to be nominated); Royal Australian Institute of Architects : Professor Alfred Samuel Hook, A.R.C.A. ; (Representative in the United Kingdom : Mr. Maurice E. Webb, D.S.O., M.C., M.A.) : New Zealand Institute of Architects : Mr. William Henry Gummer ; (Representative in the United Kingdom : Mr. Howard Robertson) ; Institute of South African Architects : Representative to be nominated ; Indian Institute of Architects : Representative to be nominated.

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION (LONDON) : Mr. Charles Lovett Gill.

REPRESENTATIVE OF THE ASSOCIATION OF

Architects, Surveyors and Technical Assistants: Mr. Leonard Archibald Frederic Ireland.

Chairman of the Board of Architectural Education: Mr. William Henry Ansell, m.c.

Also, the Chairmen of the Art, Literature, Practice and Science Standing Committees; Chairman of the Allied Societies' Conference; Mr. John Begg (Edinburgh); and Chairman of the R.I.B.A. Registration Committee.

Art Standing Committee: *Fellows:* Professor Stanley Davenport Adshead, m.a. (Lvpl.); and Messrs. Leonard Holcombe Bucknell; Charles Frederick William Dening, r.w.a. (Bristol); Joseph Emberton; Arthur Bedford Knapp-Fisher; Henry Vaughan Lanchester; Edward Maufe, m.a. Oxon; Francis Winton Newman; M. H. Baillie Scott; and George Grey Wornum. *Associates:* Messrs. Edwin Maxwell Fry, b.arch. Lvpl.; Walter Monckton Keesey, m.c.; Raymond McGrath, b.arch. Sydney; Harold Tomlinson, m.a. Cantab. (Cambridge); Frederic Edward Towndrow; and Ernest Berry Webber. *Licentiates:* Messrs. Samuel George Short; Archibald Stuart Soutar; and Sidney Lunn Whitehouse (Birmingham).

Literature Standing Committee: *Fellows:* Professors Leslie Patrick Abercrombie, m.a. Lvpl. (Liverpool); Lionel Bailey Budden, m.a. Lvpl. (Liverpool); and Messrs. Louis Ambler, f.s.a.; Robert Atkinson, hon. m.arch. Lvpl; Martin Shaw Briggs; Frederick Chatterton; David Theodore Fyfe, m.a. Cantab. (Cambridge); Harry Stuart Goodhart-Rendel; Philip Dalton Hepworth; and Andrew Laurence Noel Russell. *Associates:* Miss Elisabeth Whitworth Scott; and Messrs. Hope Bagenal, d.c.m.; Stephen Ernest Dykes Bower, m.a. Oxon.; Harold William Chester; Eric Rowlstone Jarrett; and Grahame Burnell Tubbs. *Licentiates:* Miss Jocelyn Frere Abram and Messrs. William Walter Begley and Norman Jewson, m.a. Cantab. (Cirencester).

Practice Standing Committee: *Fellows:* Major Charles Frederick Skipper (Cambridge); and Messrs. Alexander Burnett Brown, f.s.i.; Herbert Tudor Buckland (Birmingham); William Thomas Curtis; Harry Smith Fairhurst (Manchester); Arthur Keen (Limpsfield); George Churchus Lawrence, r.w.a. (Bristol); Leo Sylvester Sullivan; John Swarbrick (Manchester); and Herbert Arthur Welch. *Associates:* John Batty; Robert Norman Mackellar (Newcastle-upon Tyne); Christopher James Fawcett Martindale (Deal); John Douglas Scott; Edward Unwin; and Charles Woodward. *Licentiates:* Messrs. Louis Blanc; Arthur Baldwin Hayward; and Malcolm Waverley Matts.

Science Standing Committee. *Fellows:* Lieut.-Col. Percy Alfred Hopkins, o.b.e.; and Messrs. Alfred Henry Barnes; William Edward Vernon Crompton (Southport); Arthur John Hope (Bolton); Alan Edward Munby, m.a. Cantab.; Thomas Edward Scott; Herbert Duncan Searles-Wood (Sutton); Reginald Minton Taylor; Samuel Pointon Taylor; and Thomas Wallis. *Associates:* Messrs. Eric Leslie Bird; Arthur Edwin Cameron; Edwin Gunn; Alister Gladstone MacDonald; Charles Stanley White; and L. W. Thornton White. *Licentiates:* Messrs. Oliver Percy Bernard, o.b.e., m.c. (Godalming); Francis Robert Taylor; and Percy John Waldram, f.s.i.

LETTERS *FROM* READERS

R. S. REDWOOD, A.R.I.B.A.
(Secretary, Bristol Society of Architects)

JOHN J. BLOWER

C. W. PERRY

Ll. E. WILLIAMS, A.R.I.B.A.

The Architects' (Registration) Act

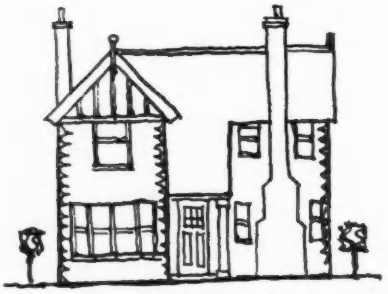
Sir,—With your readers, I am indebted to Mr. Ansell for his clear statement of the position of chartered architects in relation to the statutory register—unless gained by recognized examination, their chartered status will not serve to gain them admission after December 31, 1933. Delay, therefore, is dangerous, alike to the unexamined members of the R.I.B.A. and to others to whom the acquisition of any sort of status by examination now presents an obstacle.

That Mr. Ansell does not suggest danger to the "legal" status of qualified, non-registered architects is all to the good; he obviously realizes that no danger to such will exist. But he is scarcely fair to the Registration Council in omitting reference to the danger to that body's financial stability if there be continued delay in the influx of subscriptions of 6s. 8d., only 3s. 4d. of which is available for the maintenance of the register. The situation of the Council's "scholarship fund" which obtains the remaining 3s. 4d. gives no cause for pressing anxiety.

There are, in fact, dangers galore upon which the considered opinion of Mr. Ansell would be of the utmost advantage to the architectural profession: the danger, either to the Registration Council or to the interests of the R.I.B.A., involved in his holdership of the chairmanship of the Boards of Architectural Education of the two bodies; the danger to the prestige of the R.I.B.A. from the possible magnification of a three-and-fourpenny (but "statutory") Registration Council in the eyes of an undiscerning public—a Council representative not of one but of three "statutory" bodies; and the appalling dangers of Section 17 of the Act in its effects upon private, professional practice.

The opposite opinion to that of Mr. Ansell is that, to the genuine architectural aspirant, there is no danger commensurate with that of dallying with the idea of seeking admission to the purely voluntary and permissive register set up under the Architects' (Registration) Act, 1931.

R. S. REDWOOD



The authentic elevational drawing of John J. Blower's house, illustrated in our last issue. See letter on this page.

John J. Blower's Ex-Office-Boy

Sir,—I see poor Hardacre is trying to make a name for himself by adapting my designs for his own ends. I protest against being termed his "intimate friend" and "erstwhile colleague." It is a total misrepresentation. How my office-boy ever came to be possessed of such a high sounding name I know not, but Office Boy he was. He has stolen my plans and perverted my good name.

Of course all right-thinking readers of your journal must have realized immediately that the house he served up was most certainly not a genuine Blower. I enclose, as a proof of his nefariousness, the original elevation which he has so abused. A Blower house is well known all over the country. No trimmings; Filling a need; Functional; these are the points which go to make up a good design, and a hasty glance at the drawing herewith should be sufficient.

Kindly be so good as to see that no trumped-up trickery appears under my name again.

JOHN J. BLOWER

The Village Wren

Sir,—The art of Mr. John J. Blower is emerging from obscurity into the limelight it so richly deserves.

In view of the great interest taken by your readers in the work of this village (or shall I say suburban?) Wren, would it not be possible to have a special John J. Blower number of the journal, illustrating some of his masterpieces, and with articles describing the materials he uses, and his methods of construction; many of these, I feel sure, are unknown to the average F.R.I.B.A. and their employment (except were hindered by obsolete byelaws) would not only reduce building costs, but also give buildings in a few years that appearance of age that is so much admired.

Finally, to meet the wishes of those readers who have wearied of the Inigo Jones frontispiece, could not a portrait of the great man himself appear on the cover of his special number?

C. W. PERRY

Unfinished Parts of London Buildings

SIR,—The completion of the lamp standards at St. Paul's Cathedral, illustrated in your last issue, leads one to hope that the unfinished parts of other London buildings may soon be taken in hand.

The following list gathered in a short walk through the main streets can no doubt be added to by other readers irritated at these "loose ends" of architecture on our public buildings :—

Southwark Bridge.—Completion of the approach parapets at each end.

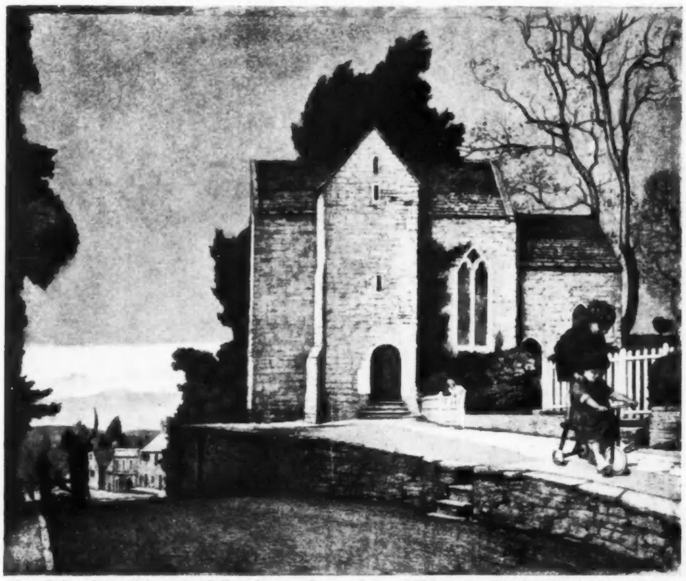
Admiralty Arch.—Carving the boasted stonework over the inner arches.

County Hall.—Bronze ornaments on the new portion of Embankment wall.

Central Hall, Westminster.—Statue of Wesley on the unfinished pedestal on Tothill Street front.

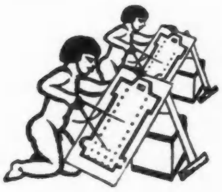
Possibly Wellington has sat his horse too long outside the Royal Exchange without his stirrups to miss them, but the unfinished arch at the end of Downing Street can hardly yet be claimed as an Ancient Monument.

Ll. E. WILLIAMS



St. Martin's Church, Wareham, from the exhibition of paintings in tempera by Maxwell Armfield, which opened at the Leicester Galleries on June 8. This exhibition is entitled "Beauty Preserved" and the pictures are records by the artist of some of the buildings and places of interest and beauty which are being preserved for the Nation by the activities of such bodies as the Councils for the Preservation of Rural England, Scotland and Wales.

COMPETITION



NEWS

PORTSTEWART MUNICIPAL BUILDINGS

Mr. R. H. Gibson, F.R.I.B.A., the assessor in the competition for the proposed municipal buildings at Portstewart, Co. Londonderry, has made his award as follows :

Design placed first (£50) : Mr. Benjamin Cowser, A.R.I.B.A., of Belfast.

Design placed second : Mr. V. Smith, of Belfast.

Design placed third : Mr. John M'Geagh, of Belfast.

The competition was limited to architects practising in Northern Ireland. The winning design is illustrated on the following pages.

The assessor, in his report, stated that twenty designs were submitted, a number of which showed interesting and clever solutions of the programme. On the three designs placed in order of merit, he had the greatest difficulty in making a final decision, and it was only after very careful study of each that he finally placed Mr. Cowser's design first. The other two were designs of very great merit. In assessing the competition he had borne in mind the fact that the Council required a compact and homogeneous building of simple structure and refined expression, and one which would lend itself to a readjustment of the rooms as the Council might afterwards decide. The competitors had, in most cases, utilized the levels of the site for access to the two floors in a clever and logical manner.

The winning design, he continued, was a very direct and compact scheme, well presented, with many excellent points in plan. The plan showed a good Council and Town Clerk's suite, a fine public hall, with well-placed caretaker's and servery apartment, and a stage or platform which was perhaps the most generous and ample of any submitted. Altogether the plan possessed on the average a greater number of good points than any other, and it had sufficient elasticity for modification should such be desired by the Council. The elevations were restrained and refined in detail, and adequately expressed the function of the building. The Crescent elevation in particular was outstanding as a piece of fine design.

The buildings are estimated to cost £7,000.

NEW BELFAST COMPETITION

Belfast architects are to have a further opportunity of testing their competitive skill. At a meeting of the Corporation's Baths and Lodging House Committee the City Surveyor (Mr. R. B. Donald) reported on the proposed £40,000 extension to Peter's Hill Baths and, in view of the amount of work which his department had in hand, suggested the placing of the work with an architect in private practice.

The Committee decided to invite designs from qualified architects, the terms and conditions of the competition to be left in the hands of a sub-committee.

LAY-OUT OF A SUBURB

About ninety schemes have been submitted in the competition for the lay-out of a suburb on the River Escaut, Antwerp, which closed on May 31. It is expected that the result will be announced at the end of July.

Competitions Open

September 1.—Sending-in Day. Proposed Hospital at Surbiton. Assessor : C. E. Elcock, F.R.I.B.A. Premiums : £120, £75, £50 and £25. The conditions, obtainable from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton, were reviewed in *A.J.* for May 24.

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Assessor : C. Cowles-Voysey, F.R.I.B.A. Premiums : £350, £250 and £150. Full conditions, etc., were published in our issue for May 17.

Competitions Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor : H. S. Goodhart-Rendel, F.R.I.B.A. Premiums : £150, £100 and £50. Conditions have not yet been drawn up.

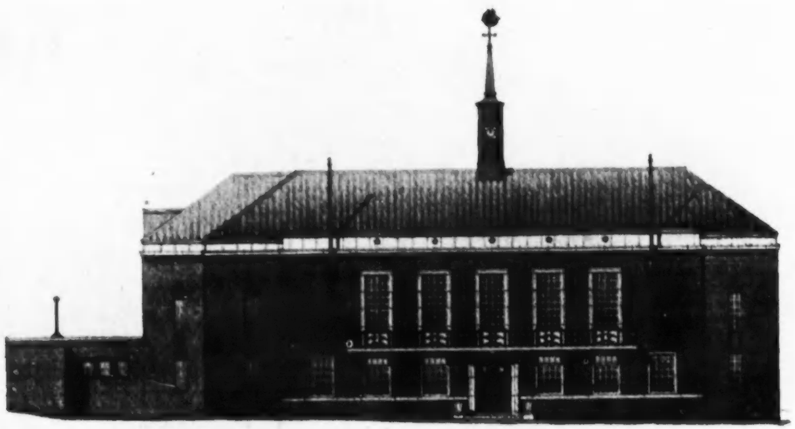
Proposed Municipal Sanatorium and Craymount Children's Hospital, Belfast. Limited to architects practising in Northern Ireland. Assessor : R. S. Wilshere, A.R.I.B.A. Conditions are now being drawn up by the assessor.

Proposed Municipal Offices and Extension to the Library and Electricity Offices for the Metropolitan Borough of Stoke Newington. Conditions have not yet been drawn up.

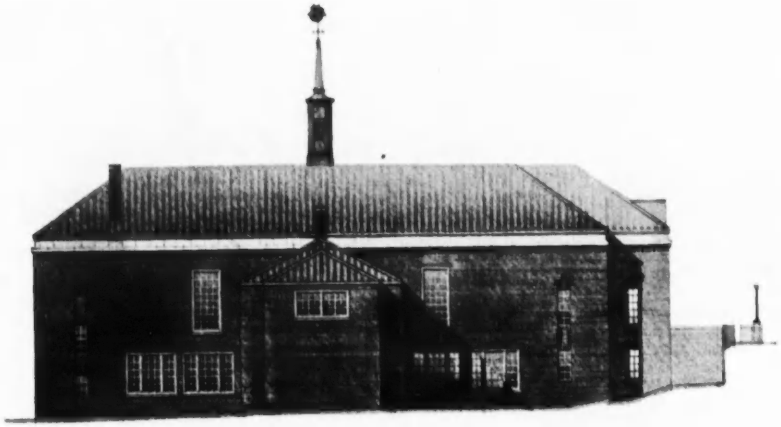
ON THE AIR

On Tuesday next, June 20, the tenth of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. by Messrs. E. Maxwell Fry, A.R.I.B.A., and John Gloag, who will discuss "The Countryside and the Town."

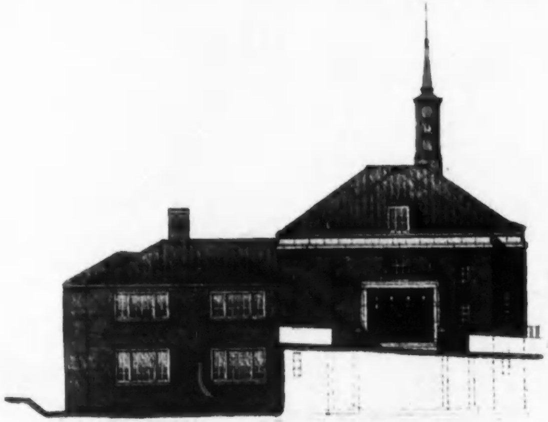
PORTSTEWART MUNICIPAL BUILDINGS COMPETITION



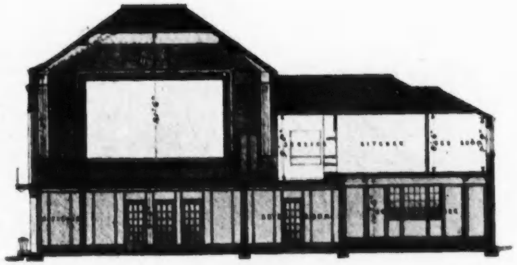
ELEVATION TO CRESCENT



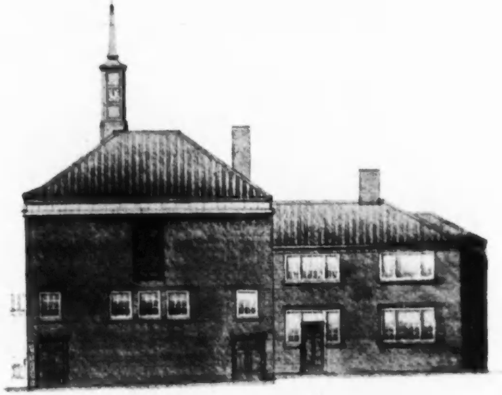
REAR ELEVATION



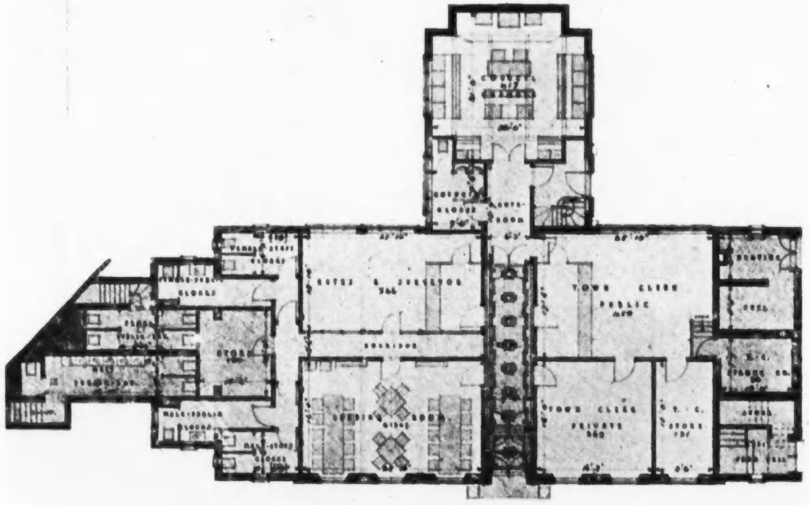
ELEVATION TO CHURCH STREET



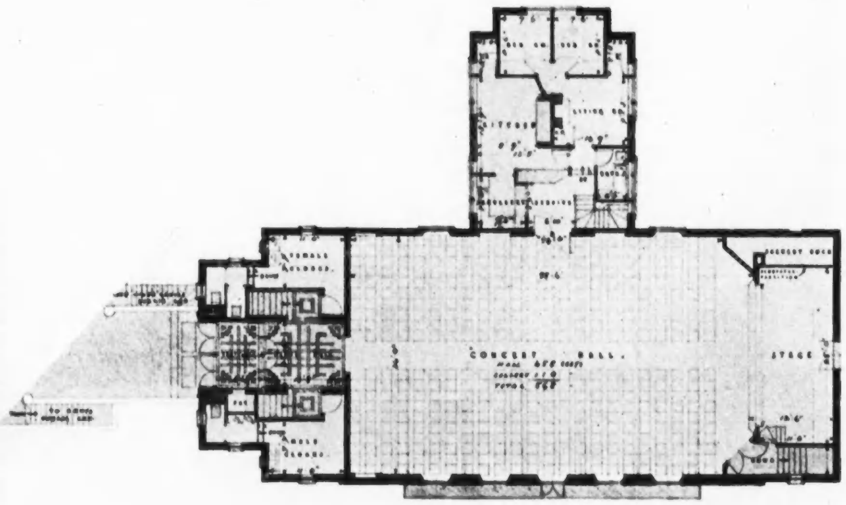
CROSS SECTION



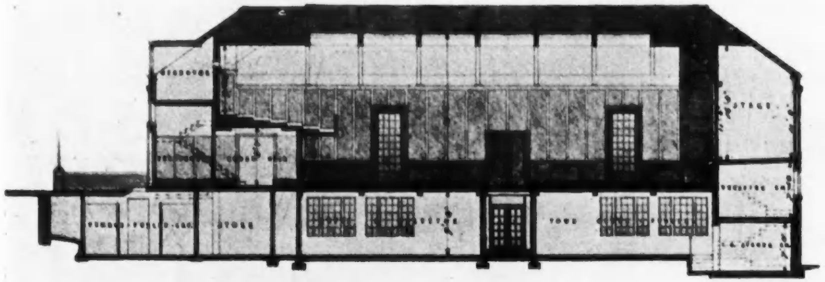
ELEVATION TO CHAPEL


TOWN CLERK
PUBLIC
TOWN CLERK
PRIVATE
STORE
CORRIDOR
READING ROOM

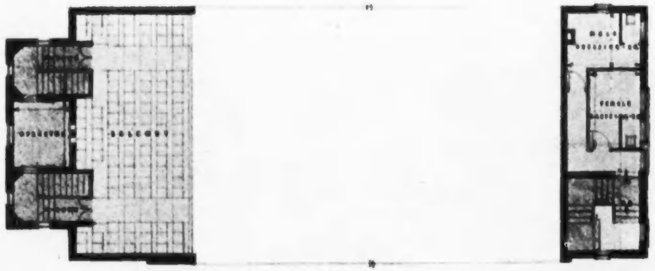
GROUND FLOOR PLAN


CONCERT HALL.
STAGE
FEMALE CLOAKS.
MALE CLOAKS.

FIRST FLOOR PLAN


STAGE
STORE

LONGITUDINAL SECTION



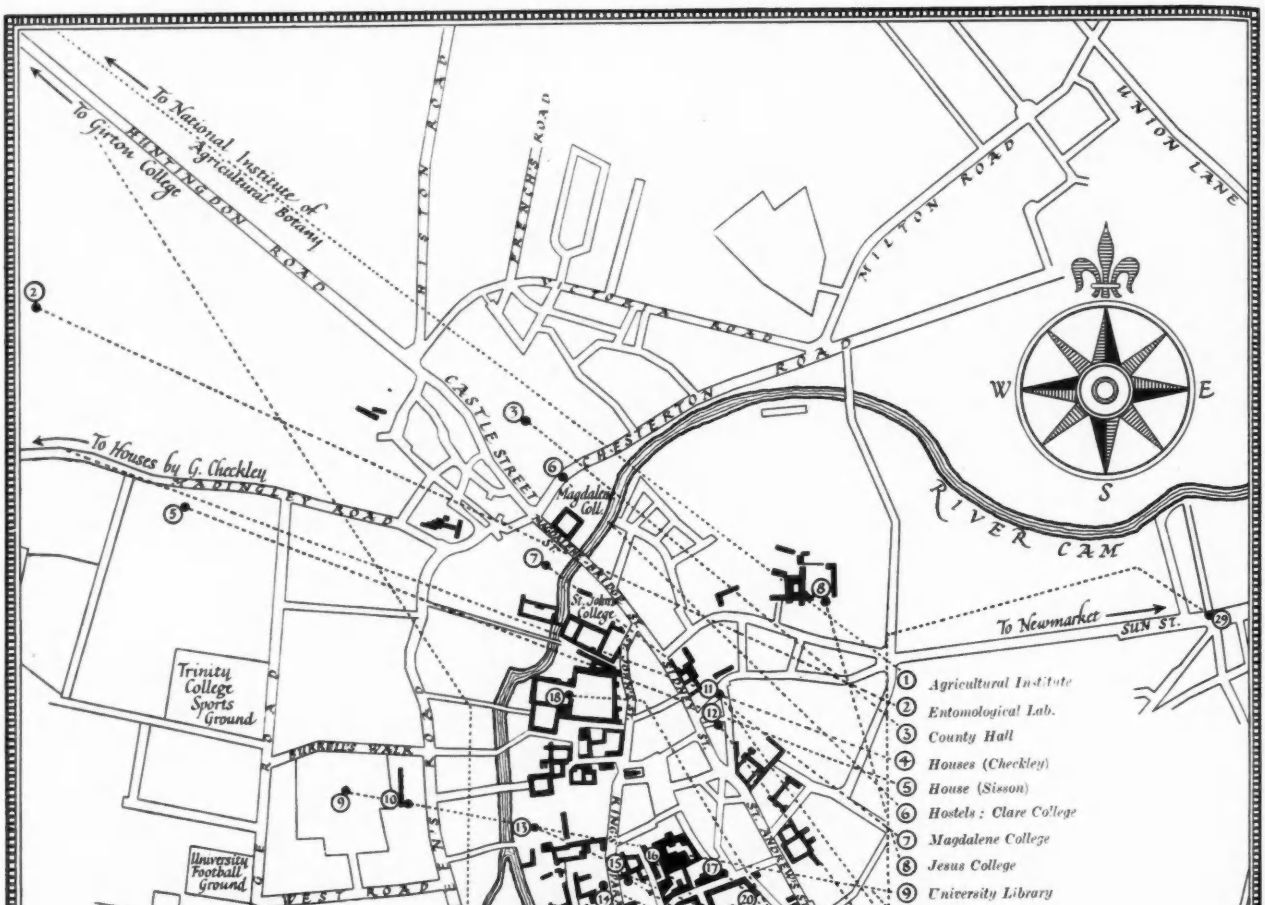
GALLERY PLAN

MEZZANINE PLAN

[See the assessor's report on page 781.

THE WINNING DESIGN: BY BENJAMIN COWSER

THIRTY-THREE RECENT


To National Institute of Agricultural Botany
To Girton College
HUNTINGDON ROAD
HISTON ROAD
FRENCH'S ROAD
VICTORIA ROAD
MILTON ROAD
UNION LANE
W
E
S
CHESTERTON ROAD
CASTLE STREET
To Houses by G. Checkley
MADINGLEY ROAD
Magdalen Coll.
St. John's College
RIVER CAM
To Newmarket
SUN ST.
Trinity College Sports Ground
BURRELL'S WALK
University Football Ground
WEST ROAD
Selwyn College
Corpus Cricket Ground
Ridley Hall
Newnham College
Caius College Cricket Ground
BARTON ROAD
NEWNHAM ROAD
Mill Stream
Leys School
REGENT ST.
ST. ANDREW'S ST.
KING'S PARADE
TRUMPINGTON ST.
Selwyn Sports Ground
Trinity College Sports Ground
St. Catherine's Sp. Gnd.
Pembroke College Sports Ground
GRANGE ROAD
RIVER GRANTA
Station
SCALE OF YARDS
0 50 100 200 300 400 500 600 700 800 900 1000
H Ball
① Agricultural Institute
② Entomological Lab.
③ County Hall
④ Houses (Checkley)
⑤ House (Sisson)
⑥ Hostels : Clare College
⑦ Magdalene College
⑧ Jesus College
⑨ University Library
⑩ Clare College
⑪ Sidney Sussex College
⑫ Flats : Sussex Street
⑬ King's College
⑭ St. Catherine's College
⑮ Corpus Christi College
⑯ Mond Laboratory
⑰ Zoological Laboratory
⑱ Trinity College
⑲ Pembroke College
⑳ Mineralogy and Agricultural Buildings
㉑ Biochemistry Lab.
㉒ Pathology Lab.
㉓ Downing College
㉔ Scott Polar Institute
㉕ Fitzwilliam Museum
㉖ Mill Lane Lecture Rooms
㉗ Addenbrooke's Hospital
㉘ Engineering Lab.
㉙ "Horse and Groom" P.H.
㉚ "Finella"
㉛ Perse School (Girls)
㉜ Peterhouse
㉝ Girton College

MAP OF CAMBRIDGE TO ILLUSTRATE THE FOLLOWING ARTICLE

BUILDINGS AT CAMBRIDGE

REVIEWED

By

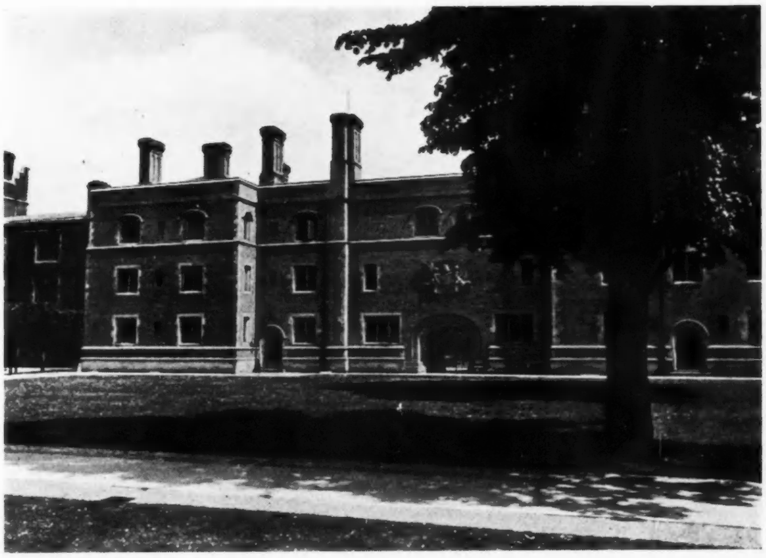
HAROLD TOMLINSON

[NOTE : *Throughout this article the figures in bold type* **• 8 •** *refer to the map of Cambridge on the facing page.*]

TO attempt to make a selection from the post-war buildings of Cambridge is a difficult task, and in the list which follows each item has been chosen because it seemed to possess sufficient individual interest to warrant its inclusion. Cambridge has many new commercial buildings of great merit ; but these will lie in the way of the visitor, and the limitations of a brief article have prevented their inclusion here. At the same time, it is interesting to notice how much the town has suffered from the well-meaning endeavours of firms who have tried conscientiously to preserve the amenities of the place. These firms have played to that small but influential gallery of University and Town folk who believe that Tudor is still the only suitable style.

Cambridge and its surroundings have so many houses of outstanding merit that to make a selection from these would be impertinent, and the writer has contented himself in mentioning the works of Mr. Checkley and Mr. Sisson because they are the only completed buildings which are in tune with the modern movement. It may be out of place to speculate on the propriety of attempting to marry the "moderne" to the older aristocracy ; but a certain laboratory now in process of building leads one to suspect that the new style may be better suited to the old than are the intermediate buildings of vaster proportions.

Most of the buildings that are of really large scale are devoted to commerce. Cambridge, unlike the sister University town, has not yet become a large manufacturing centre ; but in some quarters there is a growing desire to make it so, and to anticipate this state of affairs by an urban dignity to which more palladian façades are



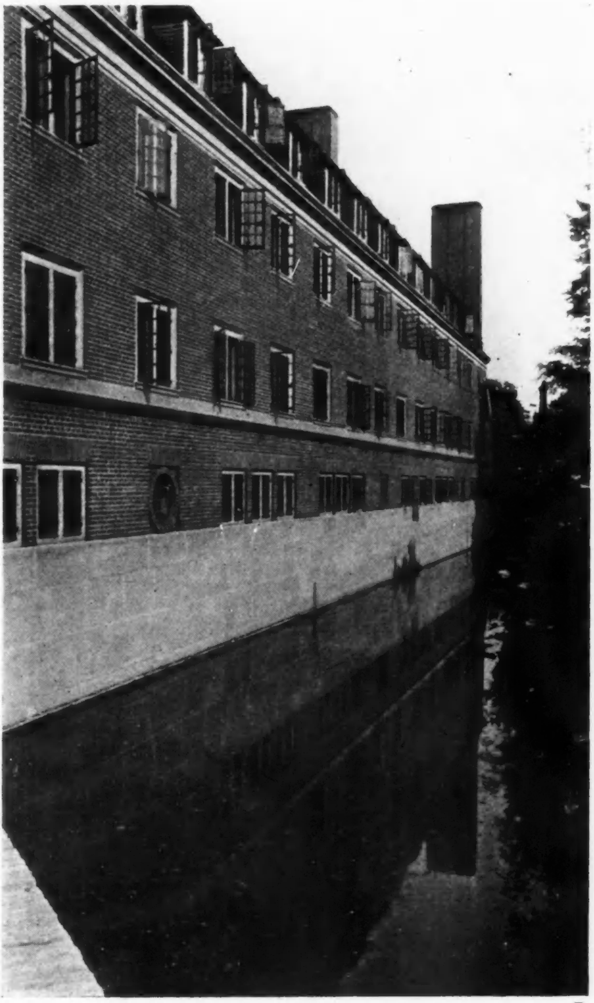
8

JESUS COLLEGE

· 8 ·

By P. Morley Horder

The block here illustrated, of which a study of the central archway, with its sculpture above, has been selected as frontispiece to this issue, is a link between two older blocks. The bricks of these two being of different colours, its mixed facings have been gradually varied from one tone to the other to effect a transition.



7

MAGDALENE COLLEGE

· 7 ·

By Sir Edwin Lutyens, R.A.

This building is the first section of the new Benson Court, and forms one wing of a projected three - sided court open to the River Cam. The north front, illustrated overleaf, will eventually face this new court ; the south side, here shown, rises from waters of the Binn Brook, a little tributary of the Cam. To obtain a firm foundation, concrete piles were driven to a depth of about forty feet through the river mud to the underlying clay.

considered to be proper. It may be that in course of time University buildings will have to be content with that kind of dignity which is evident in the few low buildings of metropolitan New York—buildings which acquire a kind of inverted prominence by the contrast which their lowness makes with the height of their sky-scraping neighbours.

For the present such prophecies are gratefully forgotten.

NATIONAL INSTITUTE OF AGRICULTURAL BOTANY

P. Morley Horder

1

This large block is partly devoted to the purpose from which it takes its name, and partly to flats. Both the main building and the adjacent small dwelling houses (by the same architect) form a very pleasant layout, and are in sharp contrast with the unpleasantness of the general disorder of that intervening part of the Huntingdon Road which lies nearer Cambridge. Cambridge, like Oxford, has lost nearly every chance of providing a pleasant first impression to visitors arriving by road, and here the pity is greater because so good a start had been made. As in all his other work in Cambridge, Mr. Horder has used freely the local traditional modes and materials. None of his buildings is in any way ostentatious; but sensitive residents have learned to appreciate their subtle qualities by a gradual growth of affection, and the town of Cambridge owes to this architect a debt for good instruction which only Mr. Baillie Scott can claim to share in equal measure.

ENTOMOLOGICAL FIELD LABORATORY

H. C. Marshall

2

A small building of great interest. The windows are designed to give the best possible light for the use of microscopes. The entrance is worthy of study as a charming composition achieved without affectation and in the simplest materials, namely sand-lime and black bricks.

THE COUNTY HALL

H. H. Dunn

3

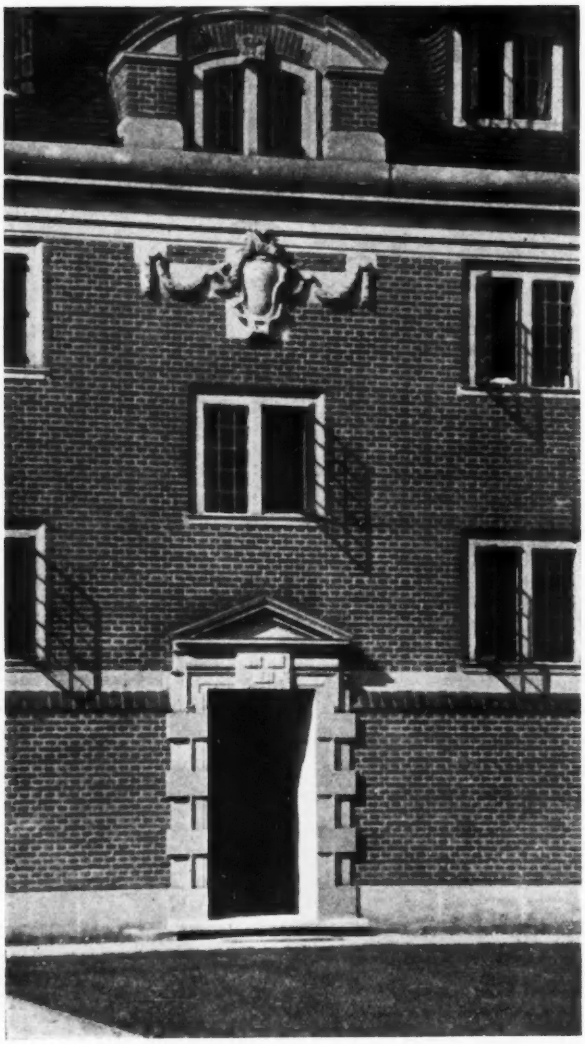
This building is admirably suited to the needs of County Offices. The rooms are well lit and of pleasing proportion, and the planning is efficient. A particularly noteworthy detail of the layout is the circulation which has been arranged for vehicular traffic—a necessity in view of the increased volume of personal applications for

MAGDALENE COLLEGE

. 7 .

By
Sir Edwin Lutyens, R.A.

A near view of one of the five entrances on the north front; and a view from the north-east. The east end of the new wing faces the river Cam. The walls are of hand-made, sand-faced, multi-coloured bricks; the base and dressings are of Weldon stone, and the roofs are of red hand-made tiles. On one of the shields over the staircases are the arms of the late master, Arthur Benson, impaled with those of the College. On the keystone of one of the doorways are carved the Harvard badge and motto. A photograph of the south side of the College appears on the previous page.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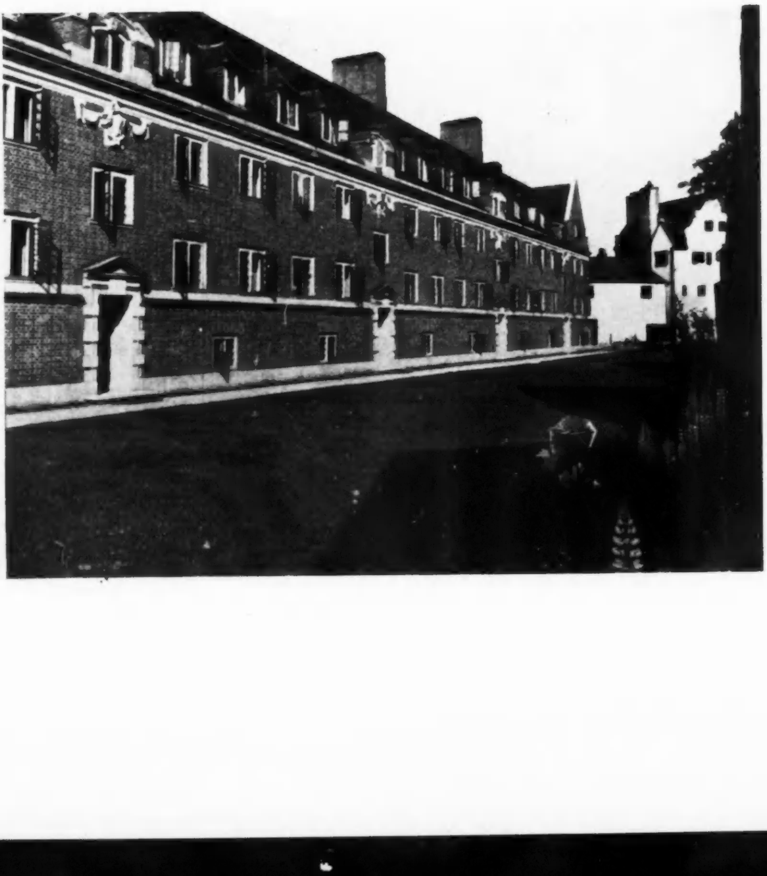

7

motor licences. The character of the work has all the admirable qualities which the same architect infused into the Village College at Sawston, near Cambridge, and a visit to this, too, is well worth while.

HOUSES

George Checkley

4

These have been too widely illustrated to need further introduction ; but it is interesting to note that in the later example (*b*) the architect has emancipated himself from a prejudice for symmetry, and in doing so has produced the freedom of planning which is one of the best features of advanced modernistic design.

HOUSE

Marshall Sisson

5

This house, also, is well known. It combines a feeling for modernistic tendencies with conventional construction and materials. The excellent plan is on traditional lines, save that it is set out in standard units of 5 ft. 3 ins., as is evident in the fenestration.

HOSTELS: CLARE COLLEGE

Harold Tomlinson

6

The two small buildings designed by the present writer are included because they were the first of their kind. They are houses designed in suites of undergraduate rooms and rented by the College to a housekeeper.

MAGDALENE COLLEGE

Sir Edwin Lutyens, R.A., P.I.A.A.S.

7

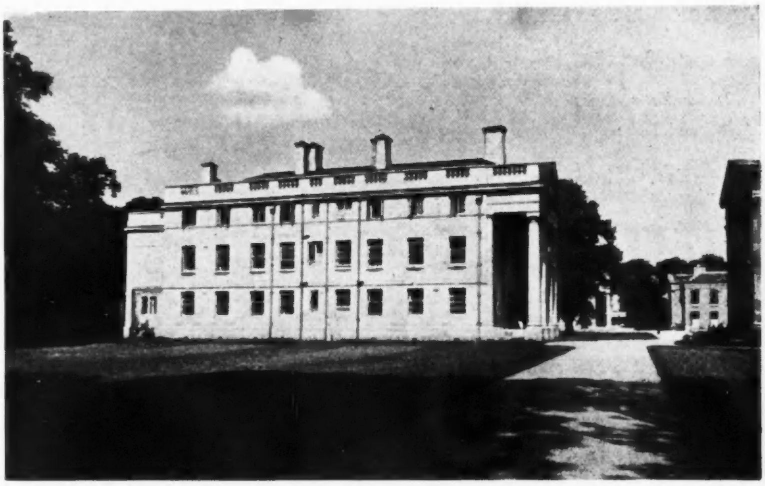
The completed block represents a small portion of a vast scheme. The details show Sir Edwin Lutyens's familiar but ever-astonishing versatility in the use of traditional forms. The doorways are particularly pleasing, and the staircases have all the richness which this architect usually gives to this feature. On the south front the lavatory windows of the ground floor are ingeniously masked by a small arched opening behind which is a minute internal area flanked by windows. The charm of this elevation owes much to light ingeniously borrowed at high premium for lavatorial purposes.

JESUS COLLEGE

P. Morley Horder

8

A very satisfactory new use of brickwork is seen here in the linking of two buildings of different colour by a block in which mixed facings are gradually varied from one tone to the other.



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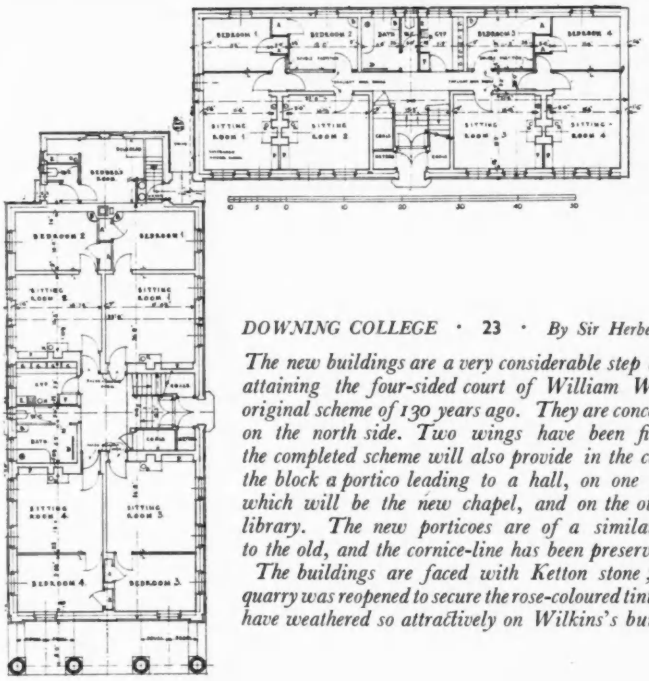


23

DOWNING COLLEGE · 23 · *By Sir Herbert Baker*

The new buildings are a very considerable step towards attaining the four-sided court of William Wilkins's original scheme of 130 years ago. They are concentrated on the north side. Two wings have been finished; the completed scheme will also provide in the centre of the block a portico leading to a hall, on one side of which will be the new chapel, and on the other the library. The new porticoes are of a similar order to the old, and the cornice-line has been preserved.

The buildings are faced with Ketton stone ; an old quarry was reopened to secure the rose-coloured tints which have weathered so attractively on Wilkins's buildings.

20

SCHOOL OF AGRICULTURE · 20 · *By Lanchester, Lucas and Lodge* (*see overleaf*)

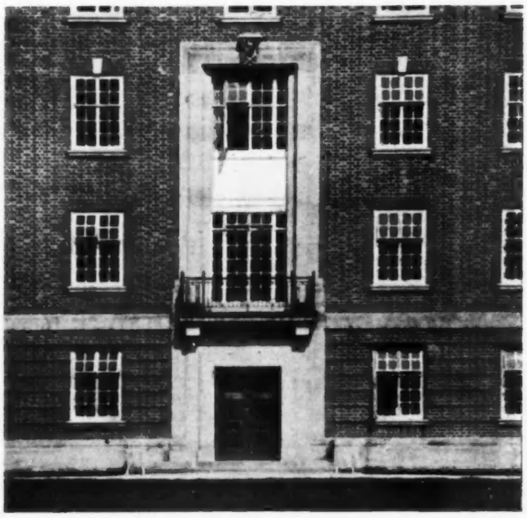
SCHOOL OF AGRICULTURE

· 20 ·

By Lanchester, Lucas and Lodge

The extension to the School of Agriculture, of which a general view appears on the preceding page, is situated at right angles to the present School and is a separate and distinct building. It forms a third side to a court of which the present School and the School of Biochemistry form the other two sides.

The accommodation on ground and first floors is shown; above are two floors of laboratories.



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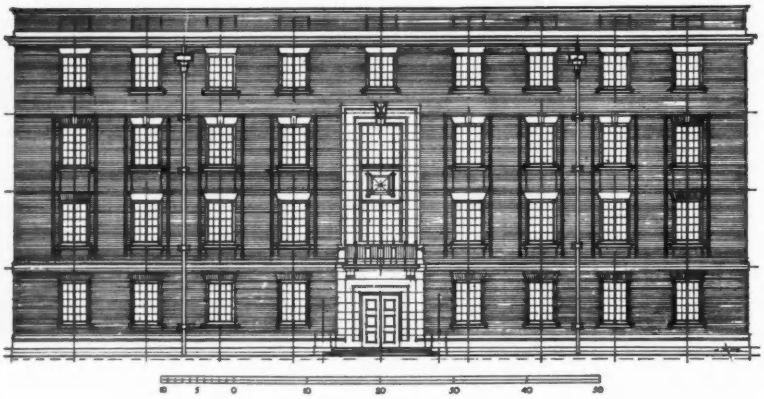

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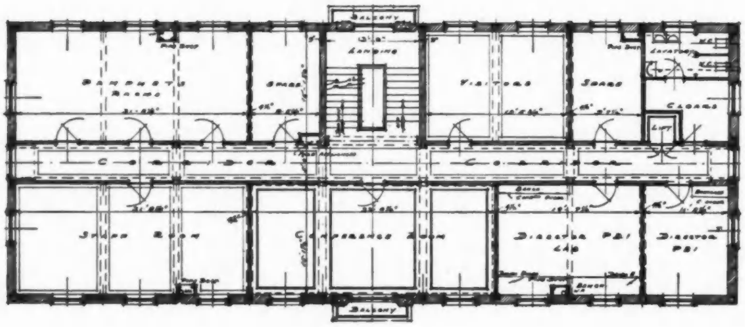

BALCONY
LANDING
PAMPHLETS ROOMS
STORE
VISITORS
STORE
LAVATORY
W.C.
CLOAKS
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STAFF ROOM
CONFERENCE ROOM
DIRECTOR P.B.I. CAB
DIRECTOR P.B.I.
BALCONY

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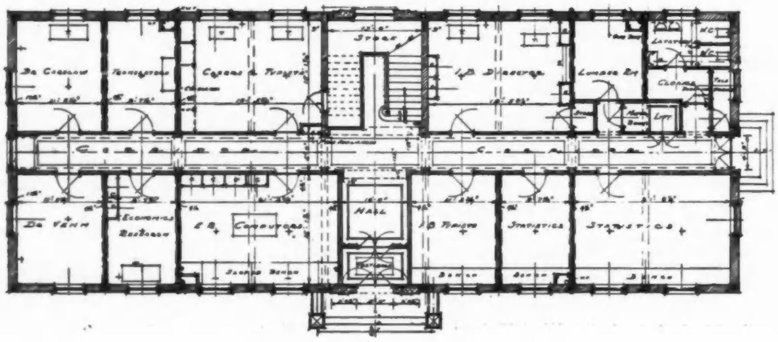


STAIR
DR. CASHLAW
I.B. DIRECTOR
LUNCH RM
LAVATORY
W.C.
CLOAKS
LIFT
CORRIDOR
CORRIDOR
DR. VENN
ECONOMICS RESEARCH
COMPUTERS
HALL
STATISTICS
STATISTICS
BENCH

20

The older work is wisely allowed to determine the character of the new, so that a unity is preserved which a less scrupulous designer would have broken. The sculpture is by Eric Gill.

THE NEW UNIVERSITY LIBRARY

Sir Giles Gilbert Scott, R.A.

9

This is at an interesting stage. It is possible to analyse the relation of the steelwork to the skin which encases it. Evidently, the architect has been at pains to investigate new materials, and new methods of construction. Over the book-stack positions may be seen concrete cast with a smooth finish from forms which were faced with fibrous wall board, to give a surface which requires but little treatment after the moulds are struck. It will not be appreciated at first sight that the eaves are complete. The gutter is concealed behind the fascia, and the rain-water is led away through perforations in the valley members of the Roman tiles. The inner courts are now vast in scale, as are the principal rooms, and one realizes with regret that some of this largeness will be lost by transverse communications not yet completed. The mouldings of the stonework should be noted. They have a freshness of a quite different order from that of the Clare Buildings. In one of the inner courts an aluminium window frame is in position to give a clue to the appearance of the completed building.

CLARE COLLEGE MEMORIAL BUILDING

Sir Giles Gilbert Scott, R.A.

10

Work is now in progress on the completion (with revision) of the scheme originally planned by the architect. The central feature of the earlier portion is axial on the New University Library, while one of the flanking pavilions provides, through its axiality with the work of Grumbold, a slender link with the College beyond the river. The facing bricks are Ruabons treated with a slip after the first firing in order to obtain the grey colour. It will be seen that the task of allying new work greater in height by an additional story has not been without its difficulties, particularly so far as the nether circumference is concerned, and a secondary cornice in partial competition has been introduced. The slightness of the carving of the Portland stone is interesting, and the progress of larger and larger windows during successive stages is not an insignificant comment on the tendencies of the last ten years.

SIDNEY SUSSEX CHAPEL AND NEW BUILDING

T. H. Lyon

11

The chapel was completed after the war, though building operations were started earlier. A necessary change in ceiling level has been skilfully achieved, and the detailing of the woodwork is typical of this architect. The new building was built with great economy, and in its day was unique in Cambridge in having a corridor plan in place of the usual staircase system.

FLATS AND SHOPS, SUSSEX STREET

E. R. Barrow

12

These buildings occupy an awkward triangular site on what used to be a very narrow street. The plan has been worked out with ingenuity to give light and air by inward bowing of the frontage. Private access to the flats has been achieved by the uncovered stone staircases leading to the terrace above the colonnade. The equipment is complete and includes oil-fired central heating.

KING'S COLLEGE

Kennedy and Nightingale

13

The effect of the architects' as yet uncompleted scheme is not apparent without reference to their plans. The work has proceeded in fragments; but it is intended to continue the range next to the Bodley building for a considerable distance by the demolition of Wilkins's work.

ST. CATHARINE'S COLLEGE

Kennedy and Nightingale

14

The new work here, too, is incomplete; but what has been carried out bears some relationship in form to the earliest plans for the larger College.

CORPUS CHRISTI COLLEGE

G. R. Dawbarn

15

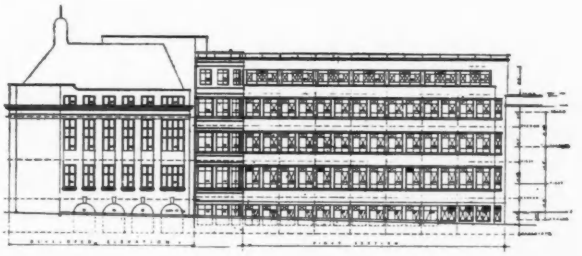
An interesting attempt to break away from the neo-Gothic work which flanks it on either side. The building includes a new Combination room of unusual shape.

THE MOND LABORATORY

H. C. Hughes

16

This laboratory forms part of a larger scheme which could not be completed



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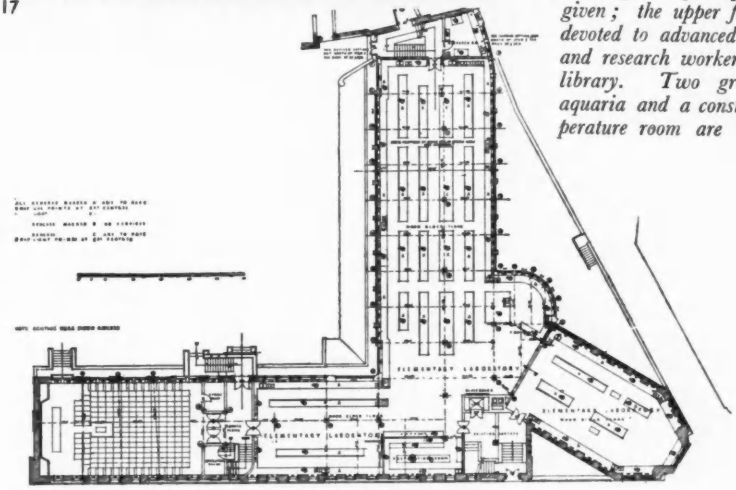
17

ZOOLOGICAL LABORATORIES

· 17 ·

By J. Murray Easton

The new group will constitute the largest and most fully-equipped institution of its kind in this country. The old Medical School building in Downing Street (by the late Professor Prior) will be remodelled as soon as the new block in Corn Exchange Street, here shown in course of construction, is completed, and floor space of some 63,000 square feet will be available. Basement and ground floor plans are given; the upper floors are devoted to advanced students and research workers, and a library. Two groups of aquaria and a constant-temperature room are included.



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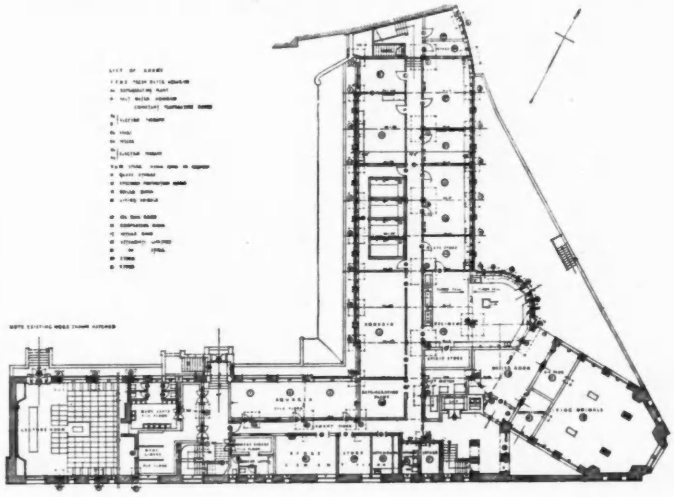

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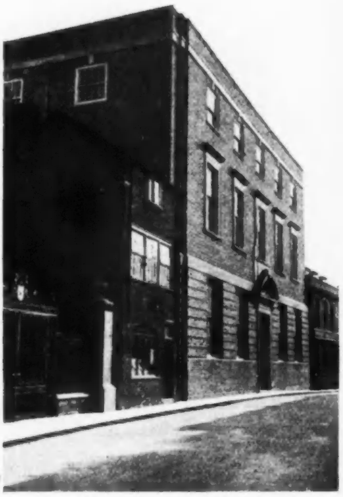

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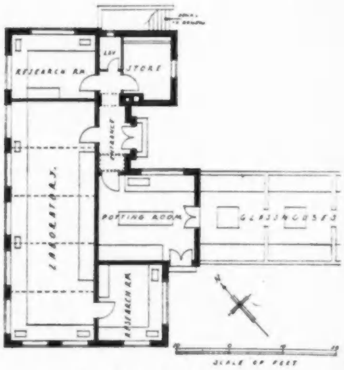
MILL LANE LECTURE ROOMS

· 26 ·

By Dunbar Smith and Brewer

In the accompanying article, attention is drawn to the freshness which the designers have found in traditional forms, and in particular to the quality of the brickwork and the restraint of the dressings in stone. The interior decoration and equipment has been the subject of the most detailed care. Modern materials and appliances have been utilized in the interests of acoustics, heating and ventilation; and one of the lecture rooms can be darkened by a mechanically-operated blind beneath its lantern-lit laylight.



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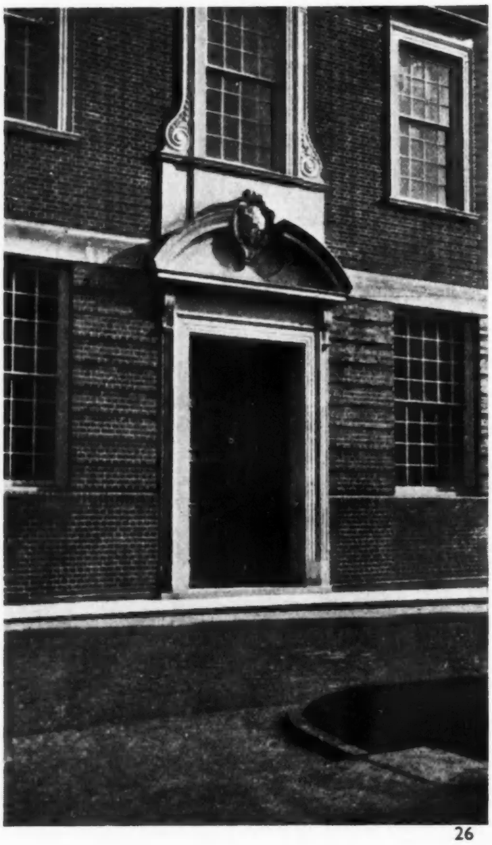
ENTOMOLOGICAL FIELD LABORATORY

· 2 ·

By H. C. Marshall

The principal building is of one story with a flat roof, faced in white sand-lime bricks with a plinth of local yellow bricks and a course of blue Staffordshires. The remainder of the site is occupied by special insectaries, glasshouses, and field sheds, the last being of similar materials to the Laboratory.



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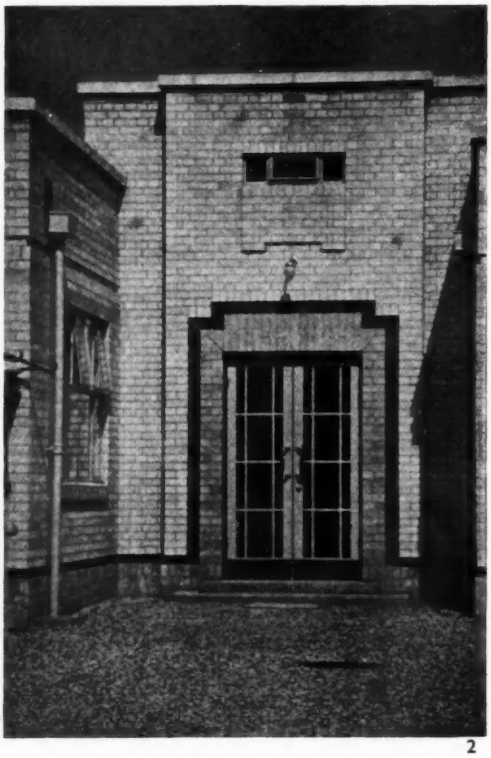

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because the whole site was not available. It has been built with great economy, even the steelwork being exposed and painted, and the walls devoid of plaster. The facings are sand-lime bricks, with blue bricks at points subject to wear. The crocodile was carved by Eric Gill.

ZOOLOGICAL LABORATORY

J. Murray Easton (Messrs. Stanley Hall and Easton and Robertson)

17

A steel-framed building which follows the new building line without affectation of frontage. The fenestration is in standard units so that the light internal partitions may be changed at future dates to meet the exigencies of research. The windows are admirably arranged for laboratory work, and the whole building gives promise of being the first laboratory in the University to be wholly admirable both in appearance and in utility.

TRINITY COLLEGE

Edward Maufe

18

The additions which this architect has made to the Essex Building show a sensitive appreciation of their surroundings. Their external manifestations in Nevile's Court can receive no higher praise than that they are worthy of their position.

PEMBROKE COLLEGE HALL AND MASTER'S LODGE

Maurice Webb

19

The architect has succeeded in the difficult task of adding an extra story to a Waterhouse building. The improvement to the interior of the ground story will be a revelation to all who were familiar with its old form.

AGRICULTURE AND MINERALOGY BUILDINGS

Lanchester, Lucas and Lodge

20

Further ranges of laboratories in which a standard unit has been used. A joint cinematograph projector room between the lecture theatres of different departments is an ingenious device here used for the first time.

BIOCHEMISTRY LABORATORY

Sir Edwin Cooper, A.R.A.

21

A typical work of its author, reminiscent of The Star and Garter at Richmond.

PATHOLOGY LABORATORY

Edward Warren

22

It is interesting to compare this with a laboratory for the same purpose by the same architect at Oxford. The two buildings have much in common; but the presence of stone dressings at Cambridge has completely altered the character of the work.

DOWNING COLLEGE

Sir Herbert Baker, R.A.

23

The first instalments of a large group which will be completed by a central portion with a dome. The work is in strong contrast with the modest charm of Wilkins's neo-grec work of a century earlier, but a wise union has been created by the use of Ketton stone, which was not employed after Wilkins's time until the present century.

SCOTT POLAR RESEARCH INSTITUTE

Sir Herbert Baker, R.A.

24

This is but recently begun; but it will be attractive to those who are interested in the early stages of building operations.

FITZWILLIAM MUSEUM EXTENSIONS

A. Dunbar Smith

25

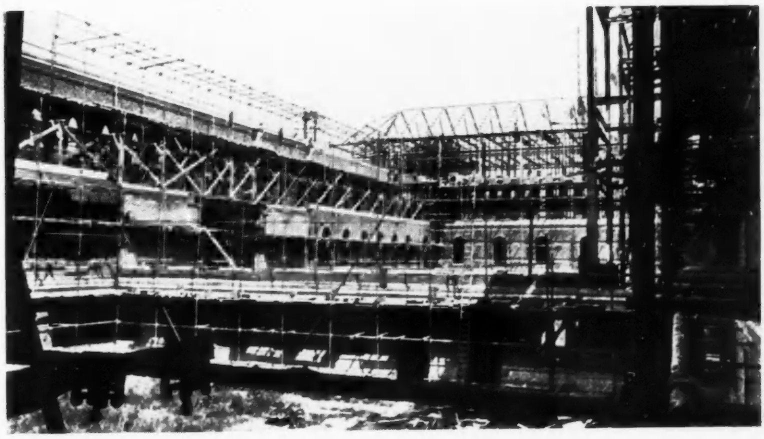
The new gallery and the rooms beyond show how great has been the improvement within recent years of the lighting of rooms devoted to the exhibition of works of art. The illumination everywhere is admirable, and even in the lower rooms there is no object which does not seem to be unusually well displayed; but it is the pictures which give the greatest indication of the architect's competence. Particular note should be made of the provision for storage of pictures which are not permanently exhibited. The new gallery in Basevi's building is an important and highly successful experiment. The admirable methods of display are due to Dr. Cockerell, and are heightened by the beauty of the lettering. The Fitzwilliam Museum makes manifest the great architectural importance of this craft, which was sadly neglected until the recent revival—a revival to whose genesis nobody has contributed more than has the Director of the Museum.

MILL LANE LECTURE ROOMS

Dunbar Smith and Brewer

26

One of the most notable of recent buildings in Cambridge, and a startling reminder of the liveliness which may



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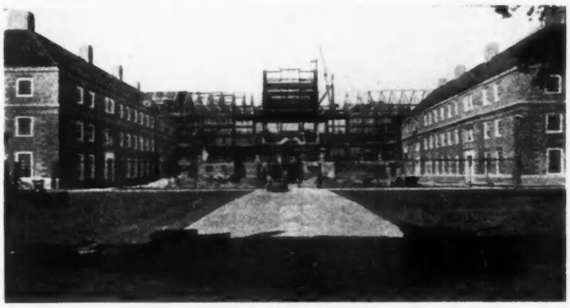
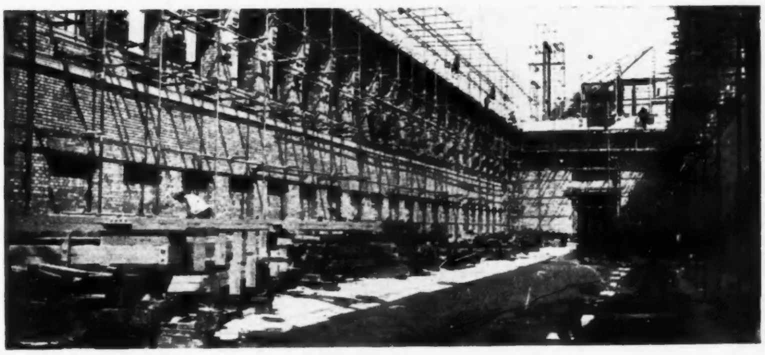


UNIVERSITY LIBRARY

· 9 ·

By Sir G. Gilbert Scott

Plans and elevations are the subject of one of this week's Supplements, which includes a description of this huge building, here seen under construction.



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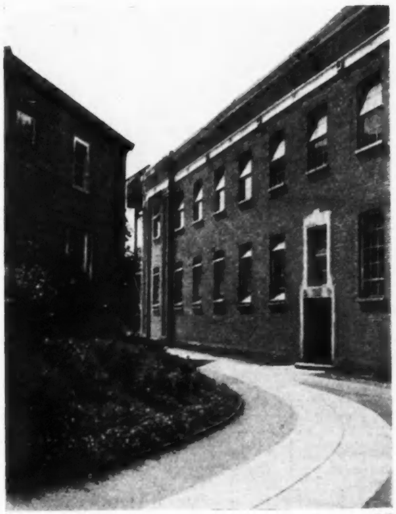

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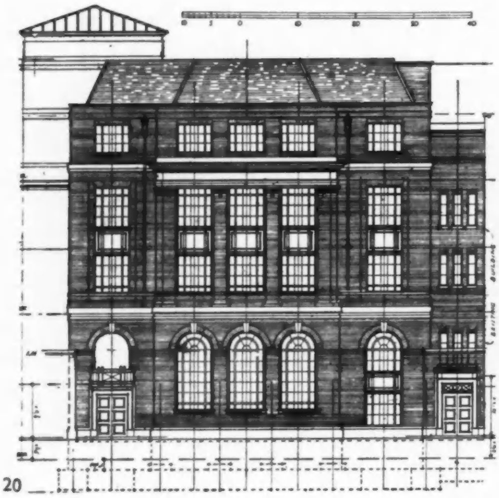
ENGINEERING LABORATORIES

· 28 ·

By F. W. Troup

The building here shown to the right supplements earlier work by the same architect. A feature of the design is the lighting of the uppermost story, which has a north light running from end to end of the building.



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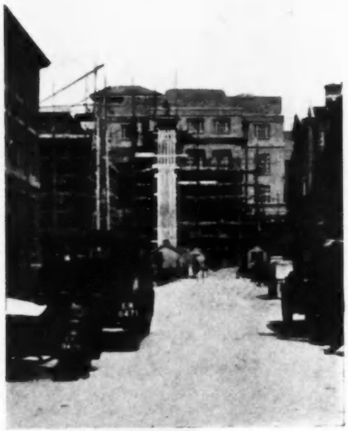

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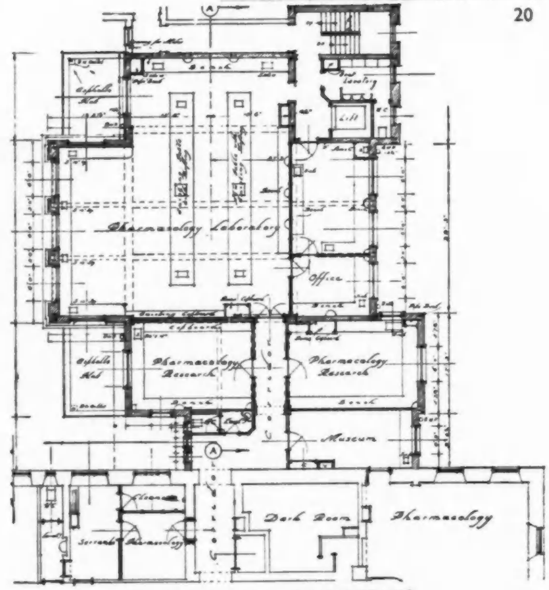

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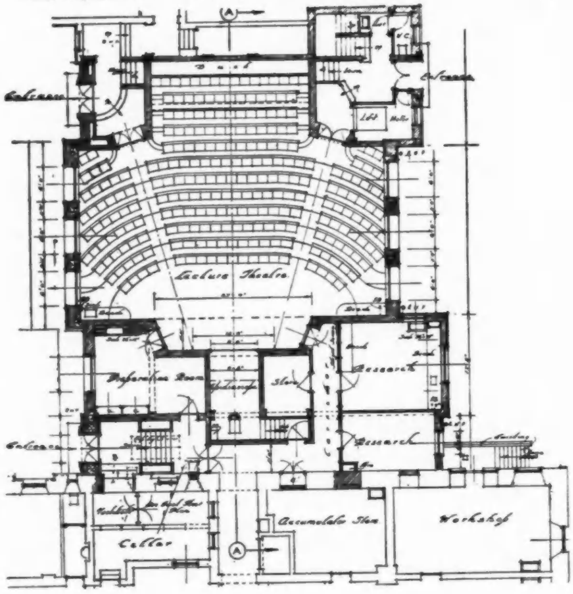

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SCHOOL OF PHYSIOLOGY

· 20 ·

By Lanchester, Lucas and Lodge

The new building is an extension to the existing School of Physiology, and provides a lecture theatre, with seating for 250 students and additional laboratories on six floors. The photograph shows the present stage of advancement of the front, of which the elevational drawing is also reproduced. The plans are of the ground and second floors.

still be found in traditional forms. Externally admirable for the quality of its brickwork, and reticent stone details. Internally outstanding in the care which has been lavished on every detail. One lecture room has a mechanical horizontal blind to a lantern-lit laylight; and many modern materials and devices have been incorporated to ensure that both acoustics and temperature shall be perfect.

ADDENBROOKE'S HOSPITAL

Pick, Everard, Keay and Gimson

27

The Nurses' Block was designed by Mr. T. H. Lyon several years ago, and is now being enlarged by the addition of an extra story. The extensions to Trumpington Street by Pick, Everard, Keay and Gimson, already well known, are worthy of study as modern hospital practice. Planning, admission of sunlight, and general efficiency are in no way sacrificed to the elevations, yet these are of great distinction.

ENGINEERING LABORATORIES

F. W. Troup

28

A building to supplement the architect's earlier work was completed last year. The equipment both in laboratories and in lecture rooms has been very carefully thought out, and the top floor is north lit from end to end.

"HORSE AND GROOM" PUBLIC HOUSE

Basil Oliver

29

This building was awarded the R.I.B.A. Medal, and is typical of the great benefits which its architect has brought to the houses of the company which employs him—a benefit which has been extended over a large area of East Anglia.

"FINELLA"

Raymond McGrath

30

"Finella" is too well known to require any description here. It is of particular interest as the first executed work of Raymond McGrath, and shows his success in transforming the interior of a nondescript Victorian house. Glass, his favourite medium, is seen in its earliest experimental stages.

PERSE SCHOOL FOR GIRLS

T. H. Lyon

31

A highly successful addition to existing work which presented numerous problems. The asymmetrical elevations are particularly noteworthy, as is also the employment of the cheapest and simplest materials.

PETERHOUSE COLLEGE

T. H. Lyon

32

A building of individual form, which was built with great economy. The second college block to have the corridor plan.

GIRTON COLLEGE

Michael Waterhouse (Sir G. G. Scott, Consultant)

33

Additions which manage to harmonize with the unattractive buildings of the last century, and yet to preserve a charm of their own. Great care has been taken in the detailing of the internal fittings and furnishings.

Programme of the R.I.B.A. Conference

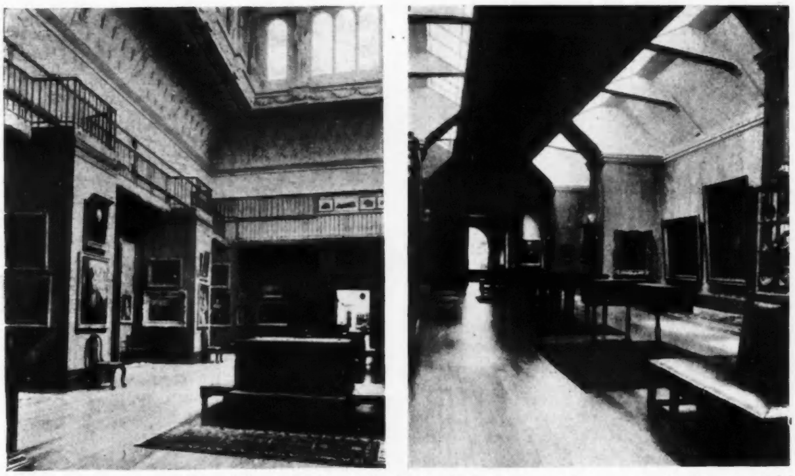
THE headquarters of the Conference will be at the Arts School, Bene't Street, Cambridge. Members should call there as early as possible to obtain conference badges, information, etc. The programme of arrangements for the four days, June 21–24, inclusive, is as follows :—

WEDNESDAY, JUNE 21—8 p.m. to 11 p.m.: An informal reception will be held in the Hall of Peterhouse, Cambridge.

THURSDAY, JUNE 22—10.30 a.m. The Conference will assemble at the Guildhall for the Inaugural Meeting, and will be welcomed by the Mayor of Cambridge (Alderman Mrs. Keynes). The Inaugural Address will be delivered by the President of the R.I.B.A., to be followed by short addresses by Mr. A. Beresford Pite, M.A. (HON.)CANTAB. (F.), and Mr. Geoffrey Webb, M.A.(CANTAB.).

Lunch : Members and their guests will make their own arrangements for lunch. 2 p.m.—Assemble at King's College, where the Conference photograph will be taken. 2.30 p.m.—Alternative visits. *A :* Old University Library; King's College, New Combination Room, Chapel ; Clare College ; over the river to New Clare Building ; New University Library now building ; bus to Headquarters. Cost per head 1s. 0d. *B :* Trinity College ; St. John's College ; Magdalene College and New Buildings ; new County Hall ; Castle Mound ; bus to Headquarters. Cost per head 1s. 0d. *C :* Mill Lane, New Lecture Rooms ; Corpus Christi College, Old and New Courts, Combination Rooms ; Free School Lane ; Mond Laboratory ; other new laboratories ; Downing College, old and new buildings ; Emmanuel College. Cost, nil. *D :* Through King's College to the Backs ; bus to Jesus College, old and new buildings, Chapel ; Westcott House, Chapel and Library ; bus to 12th century Stourbridge Chapel ; then to Pembroke College, Wren Chapel, etc. Cost per head 1s. 0d.

5.15 p.m. to 7 p.m.—Reception by the Rt. Worshipful The Vice-Chancellor of the University of Cambridge at the Fitzwilliam Museum. Refreshments. Members will dine privately.



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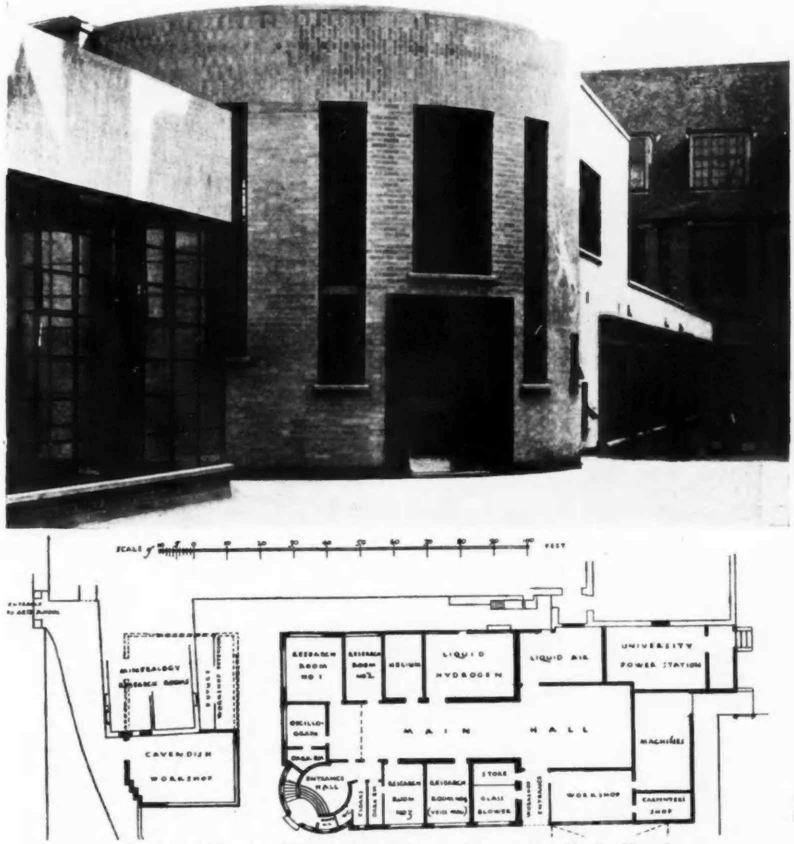
FITZWILLIAM MUSEUM EXTENSIONS · 25 · *By A. Dunbar Smith*

The new gallery and the rooms beyond show how great has been the improvement within recent years of the lighting of rooms devoted to the exhibition of works of art.



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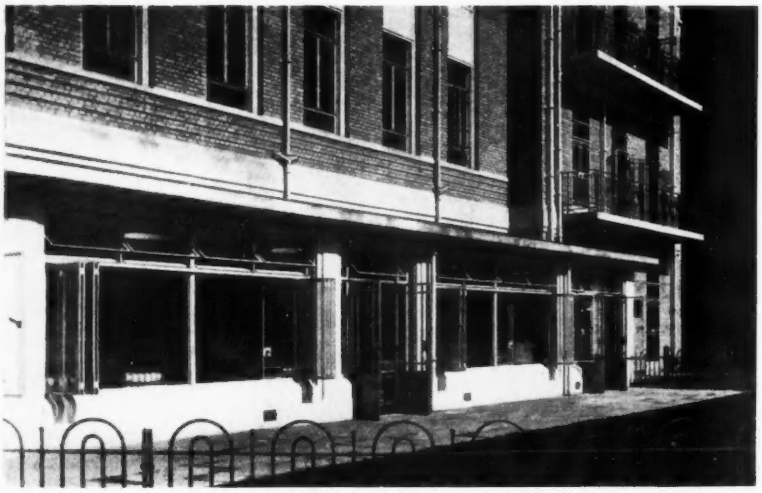
THE MOND LABORATORY · 16 · *By H. C. Hughes*

The laboratory is the gift of the Royal Society through a legacy of the late Dr. Ludwig Mond ; the nature of the research work into the behaviour of materials in intense magnetic fields demands darkness, quiet, electric power and low temperature installations. The walls are mainly of sand lime bricks. The bronze chromium-plated doors are set in a black faience surround. Part of the Cavendish Laboratory is seen in the foreground ; both buildings have flat roofs and metal windows.



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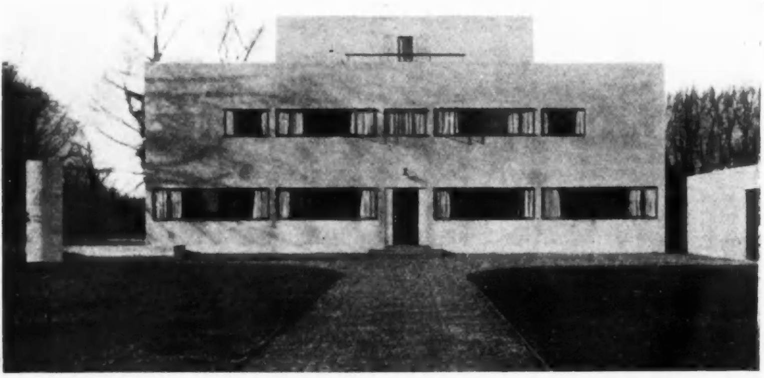
ADDENBROOKE'S HOSPITAL · 27 · *By Pick, Everard, Keay & Gimson*

In this new wing, children are accommodated on the ground floor, with its southward-facing balcony and lawn in front, and private patients on two floors above. It is built in the main of local cream-coloured bricks, and is connected to the other hospital buildings by a corridor.



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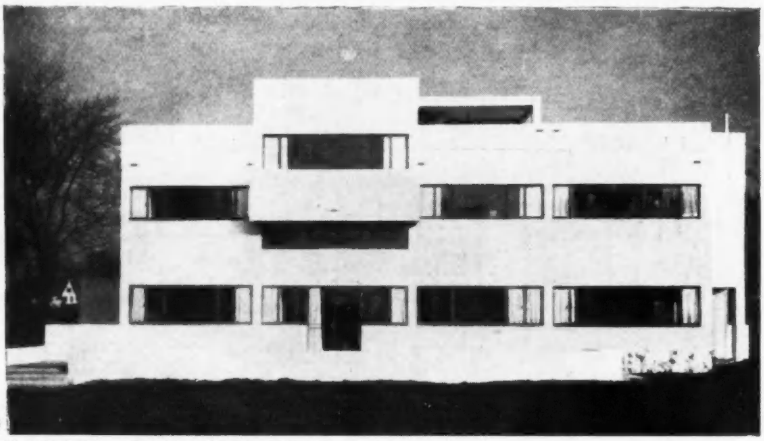

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HOUSES, CONDUIT HEAD ROAD · 4 · *By George Checkley*

It was intended that construction in reinforced concrete should have been general, but, on account of cost, it was confined mainly to the framing of the elevations. Nine-inch brick infilling is employed. The roofs are of timber, laid to falls, boarded and covered with three layers of bituminous felt and half-an-inch of tarmac, in one case, and where used as terraces, with $1\frac{1}{2}$ ins. breeze concrete slabs, brought up in Portland cement and sand, in the other. Standard metal windows, without glazing bars or mullions, and metal doors are used.

FRIDAY, JUNE 23—Alternative whole-day motor coach tours. Inclusive cost of each tour, as shown. Accommodation for certain visits is strictly limited and members are requested to state their second choice when applying. All coaches will start from Market Hill.

TOUR No. 1, 9 a.m. to 5.45 p.m.—Milton—Stretham—Ely (no stop made here on this tour)—Upwell, church—Walsoken, church—Wisbech. "Capital of the Fens," possesses a tidal river and is some nine miles from the sea. In this district King John with his army was overtaken by the tide and lost his crown and regalia. A company, "Fen Research, Ltd.," is at present engaged in attempting to locate and recover these valuables. At Wisbech will be seen Messrs. English Bros. Timber Yard—ships importing Swedish timber—creosoting process—manufacture of "chip" baskets. (Lunch.) Visits will then be made to the Parish Church, one of the five double-naved churches in England—Museum—National Canning Co.'s Pea Factory. March—largest railway marshalling yard in Europe. St. Wendreda's Church. (Tea.) Between March and Chatteris the road passes over Turf Fen, where the ancient method of cutting peat or turf for domestic fuel is still carried on and where gipsies have for many centuries exercised "squatting rights." Continue journey via Sutton—Haddenham—Stretham to Cambridge. Leader: Mr. F. Burdett Ward (L.). Cost, including lunch and tea, 9s. 6d. per head.

TOUR No. 2, 9 a.m. to 5.30 p.m.—The road along which this excursion is taken lies across the fens, which in Hereward's time were almost impenetrable, and rises on to the Isle of Ely at Stretham—inspect brick tower windmill. Only a short time can be allowed at Ely Cathedral, as time presses, and no halt will be made in the fens (where often the road is lower than the river) till King's Lynn is reached. (Lunch.) Here the party will be met by Mr. H. L. Bradfer-Lawrence, F.S.A., who will act as guide for Lynn and Castle Rising. After lunch the remarkably well-preserved Norman Castle at Castle Rising will be visited, the Norman Church and seventeenth-century almshouses. The return journey will be northwards for a short distance, then down past Houghton Hall, Castle Acre and Swaffham, to Mundford, near Grimes Graves, the great flint implement factory of the Stone Age. (Tea.) Continue the journey through Brandon, over Lakenheath, passing through plantations of the Forestry Commission, Barton Mills, Newmarket to Cambridge. Leader: Mr. H. C. Hughes, M.A. (F.). Cost, including lunch and tea, 10s. 6d. per head.

TOUR No. 3, 9.30 a.m. to 5.30 p.m.—Proceed along the London Road out of Cambridge by the Botanical Gardens and through Trumpington village with thatched roof cottages; then bear to the right and over the railway bridges, skirting the Shelfords and on to Sawston, where alight at the first Village College in England, under the directorship of Mr. Henry Morris, County Education Officer for Cambridgeshire; then to Sawston Hall. Continue past Hinxton and Littlebury to Newport, where there are houses with very good external plaster work. Between Littlebury and Newport a good view of Audley End can be obtained from the road. Proceed via Widdington to Thaxted, where there is one of the finest churches in Essex, a moot hall, and—about two and a half miles to the south—Horham Hall, a good example of sixteenth-century brickwork. From Thaxted proceed to Saffron Walden, which has a fine perpendicular church, an interesting museum, castle ruins, and many quaint houses with examples of old parge or plaster work. (Lunch at the Rose and Crown Hotel.) Drive through the park to Audley End House, the most notable residence in Essex and the site of the Benedictine Abbey of Walden. The house will be visited by kind permission of Lord Braybrooke. (Tea.) Return to Cambridge through Ashdon, Linton and the Abingtons, passing Babraham Hall on the left.

Then over the Gog Magog hills and by the golf course to Cambridge. This tour will give visitors the opportunity of seeing some good domestic architecture, together with interesting churches in some delightful country. Leader : Mr. N. T. Myers (F.). Cost, including lunch and tea, 8s. per head.

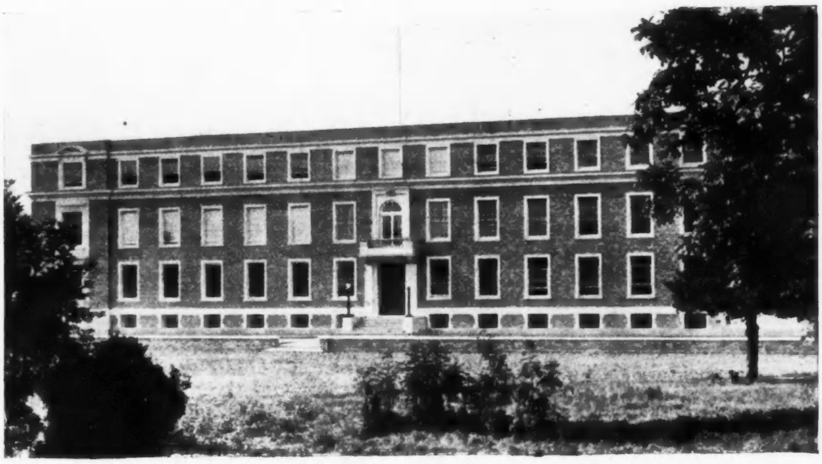
TOUR No. 4, 9.30 a.m. to 5.30 p.m.—From Cambridge to Wimpole : north along Ermine Street, past Longstowe, to Bourne (church and windmill), to Caxton Gibbet and west through Eltisley to St. Neots. From St. Neots via Eaton Socon to Buckden. (Lunch.) From Buckden to Huntingdon and Godmanchester. Through the Offords to Great Paxton ; then via Toseland, Graveley and Hilton to Hemingford Grey and Fen Stanton. (Tea.) This tour will be mainly in Hunts. Its interest will centre in a number of fine parish churches (notably St. Neots and Great Paxton ; the one perpendicular, the other late Saxon—a very fine example) and charming examples of vernacular eighteenth-century work. Points of especial interest are the fifteenth-century Palace of the Bishops of Lincoln at Buckden and the Bridge at Huntingdon. Leader : Mr. Geoffrey Webb, M.A. Cost, including lunch and tea, 8s. 6d. per head.

TOUR No. 5, 9.30 a.m. to 5.30 p.m.—Drive to Ely, where the Cathedral will be visited. (Lunch.) The route will be by the old road, through characteristic villages of the Fen country—Bottisham and the Swaffhams, with three interesting churches ; Burwell, with a particularly fine perpendicular church ; Soham, also with a fine church, near Wicken Fen, preserved as a wild-life sanctuary by the National Trust. The return journey will be on another roundabout route, by Sutton, with its noble church tower, to Haddenham on its hill, and down to Earith Bridge, at the south end of the unique Old and New Bedford Rivers, crossing from the Isle of Ely near a spot made famous by the resistance of Hereward the Wake. Thence by some of the most interesting churches in Cambridgeshire—Willingham, with a splendid timber roof and painting ; Over, with remarkable local carving and sculpture. (Tea at the delightful Ferry Inn on the Ouse at Overcote.) Swavesey, with fine Early English lancets. Thence via Devana to Cambridge. This tour offers the best opportunity of seeing at close quarters the real character of the Fenland countryside and the Minster of Ely. Leader : Mr. Theodore Fyfe, M.A. (F.). Cost, including lunch and tea, 9s. per head.

TOUR No. 6, 9.30 a.m. to 5.30 p.m.—Leave Cambridge by the Barton Road, passing across the long avenue of Wimpole Hall. Join London Road, left, but leave it immediately, right, for Ashwell, via Wendy, Shingay and Guilden Morden. Alight at Ashwell to see the Church. Proceed to Baldock, where there is a fine church and some interesting eighteenth-century houses. The new factory for the manufacture of full-fashioned hosiery can also be visited. (Lunch.) Proceed from Baldock to Letchworth. After seeing the old village, the party will be shown over the Garden City under the guidance of Mr. Barry Parker, J.P. (F.) Proceed to Hitchin, where some good houses can be seen, and the fine parish church visited. (Tea.) Return to Cambridge by the direct road via Baldock, Royston, Melbourn and Trumpington. This tour will enable visitors to have expert guidance over the first and most completely developed Garden City in England ; in addition, to see some very pretty country in the neighbourhood of Cambridge, and, in Hitchin and Baldock, two Hertfordshire towns which are full of character. Leader : Mr. P. C. Blow (A.). Cost, including lunch and tea, 9s. per head.

BANQUET : 7 p.m. for 7.30 p.m.—Conference Banquet in the Hall of Trinity College.

SATURDAY, JUNE 24 : Informal Visits.—Private parties to other places of interest. Members to make their own arrangements. Information will be available at the Conference Office.



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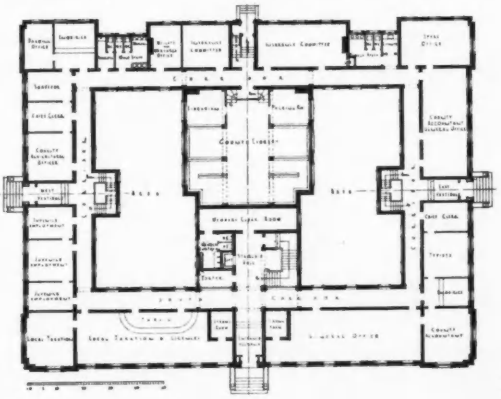
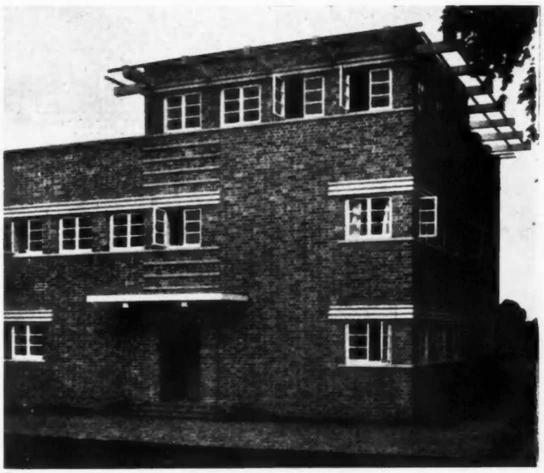


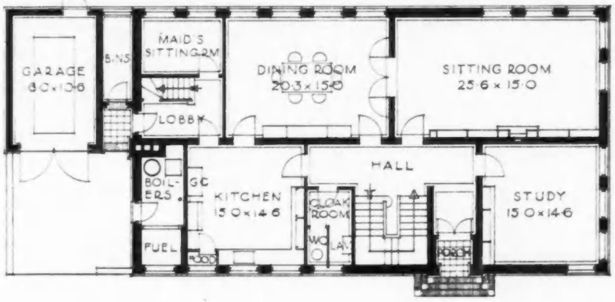
3

COUNTY HALL · 3 ·
By H. H. Dunn (County Architect).
The view is taken from the grounds. The bricks used were salved from the gaol previously standing on the site ; dressings are of reconstructed Portland stone. The Council Chamber is over the library, which accommodates some 20,000 volumes. The buildings cover rather more than half an acre, and house all the County administrative services except police and public assistance.



5

HOUSE · 5 ·
By Marshall Sisson.
Designed for a family of three and one maid, this modernistic building is constructed of traditional materials : 14 ins. brick walls with ½ in. flat joints, lintels, sills and copings of reinforced cast stone, and wooden casements, glazed with crown glass. The flat roof has a garden with pergola and screened sun-bathing area. All the kitchen services are in one room. There is only one chimney, containing flues from central-heating boilers and the gas range. (See the ground plan below.)



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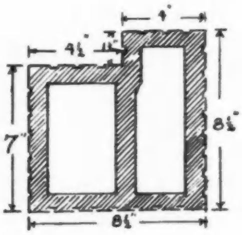

TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Hollow Tiles in Domestic House Construction

I HAVE often wondered why hollow tiles are used so rarely in the construction of domestic houses; they have been on the market for years, and have been proved reliable and economical and are used for walling with steel-framed structures.

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Seeking enlightenment I called on J. H. Sankey and Son, who manufacture *Holbric* and I was informed that the neglect of this important material persists mainly because many local authorities still work to obsolete byelaws, i.e., the regulations that govern building work in the areas in which they have authority have not been revised to meet the requirements laid down in the Model Byelaws (1930), and, whilst the Code of Practice and British Standards Specification govern the use of hollow tile with steel-framed structures, the local council surveyor has jurisdiction over domestic house building, and may turn down a scheme if the type of construction proposed is not permitted by the byelaws in force in his own district, although such construction meets with approval under the Model Byelaws issued and recommended by the Ministry of Health.

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An architect cannot, of course, compel a surveyor to accept a form of construction that is not approved under the byelaws existing in his district, for it is the duty of the surveyor to enforce these byelaws, even though they be hopelessly out of date. But *he can press for an amendment*, and to get byelaws amended is, I am informed, a comparatively simple procedure, though a month may elapse before an amendment takes effect. He will, in doing this, have the sympathy and co-operation of the Ministry of Health, who are anxious to see all local authorities' byelaws brought up to date, i.e., based on the Model Byelaws (1932).

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Paragraph 5 of the Memorandum of the Model Byelaws says: "Local Authorities proposing to make byelaws are asked to base their proposals on the model series where there is one, and to follow it as closely as they can. The object of Parliament in leaving certain matters to byelaws is that the responsibility for meeting local needs shall rest upon the byelaw-making authority, but obviously differences between districts in the law of building should be confined to points where there is a substantial difference in local needs or circumstances. The law is unavoidably technical and sometimes controversial, and the people most concerned with these byelaws, architects and builders (who may have building activities in several districts) have found the continual differences which formerly existed (often in details where differences could not be justified) to be probably the most irksome feature of their control by Local Authorities.

"This irksomeness cannot be avoided except by following the settled forms of clause embodied in the model series."

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Paragraph 5* of the Byelaws says: The byelaws with respect to the structure of walls except those numbered 22 and 30† shall not apply to a domestic building if:

(1) the building comprises not more than *two* stories;

(2) the capacity of the building does not exceed *eighteen thousand cubic feet*;

(3) each external wall of the building is constructed of good and suitable material so as to be of sufficient stability and reasonably weatherproof and either:

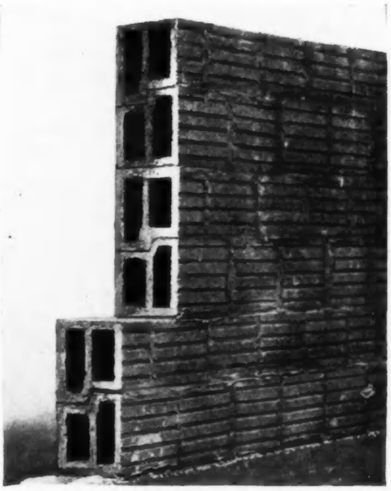
a. to a height of not less than *six inches* above the surface of the adjoining ground is constructed of:

(i) good whole bricks or stone not less than *eight-and-a-half* inches thick and properly bonded and solidly put together, with good mortar compounded of good lime and clean sand or other suitable material, or with good cement, or with good cement mixed with clean sand, or

(ii) other good, hard and suitable incombustible material of sufficient thickness, properly and solidly put together, or

b. at a height not less than six inches above the surface of the adjoining ground is carried upon sufficient piers so constructed as to comply with the byelaws with respect to a pier forming part of a wall.

Paragraph 17 anticipates the use of hollow blocks in the construction of external and party walls in saying, under section (b) (1): "where any wall or part of a wall of a building is constructed of hollow blocks, every block shall be constructed of good material not inferior in strength, impermeability and fire-resisting capacity to good whole bricks used in the same position."


An 8½ ins. interlocking hollow tile wall.

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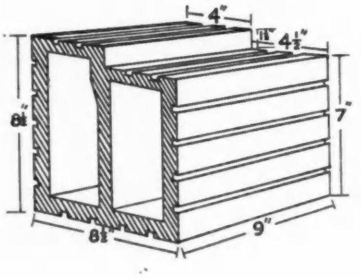
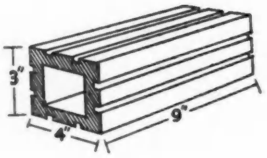
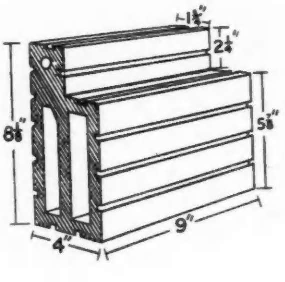
Messrs. Sankey have employed their ordinary 9 ins. x 6 ins. x 9 ins. hollow building







Left: 8½×8½×9 ins. long block.
Above: 4×3×9 ins. long block (closer).
Right: 4×8⅛×9 ins. long block.

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* A footnote to this paragraph says: "wherever byelaws of an urban type are in force a provision on these lines should be adopted. It has been found extremely valuable not only for wooden buildings, but for buildings in various patented materials."

† Dealing mainly with damp-proof courses and copings.

blocks for the construction of 9 ins. walls, but find them less satisfactory than their 8½ ins. *Holbric* interlocking blocks, which have rather thicker "walls," and a crushing strength of about 923 lb. per sq. inch. (It is interesting to note that the Code of Practice requires a crushing strength of 450 lb. per sq. inch of a hollow burnt clay block used in a steel-framed structure.)

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It is customary to render the blocks externally and to plaster them in the usual way on the inner face. Both faces are keyed to secure good adhesion.

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The wall below the dampcourse is best built in brickwork or concrete, but the whole of the wall above may be in hollow tile, and the manufacturers will supply details of finishes at reveals, angles, around door frames, and so on.

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I have been supplied with the following figures showing the comparative price of 8½ ins. rendered *Holbric* walling against 9 ins. pointed brick walling. Weather pointed 9 ins. brickwork with picked facings costs approximately 15s. per superficial yard. Rendered *Holbric* walling costs approximately 11s. per superficial yard. It seems, therefore, that the external walling of a house 24 ft. by 20 ft., having approximately 196 yards of 9 ins. brick wall at 15s. per yard would cost £147, whereas the same amount of walling in *Holbric* at 11s. per yard would cost £107 16s., indicating a *saving*, effected by the use of hollow tile, of £39 4s., which represents a considerable economy on such a house.

Automatic Coal Stokers

I am told by the manufacturers of the *Mastoker* that the price of the No. 4 model is £168, not £160, as shown in the price list that appeared in these notes on June 1.

Literature Received

Glass, Practical Notes on its Character, Variety and Use.
Chance Bros.

SOCIETIES AND INSTITUTIONS

NATIONAL ASSOCIATION OF BUILDING SOCIETIES

Sir Raymond Unwin, P.R.I.B.A., in a paper on "The Value of Good Design in Dwellings" at the annual meeting of the National Association of Building Societies, compared the cost of speculative and architect-designed houses. He said :—

You may be thinking that houses built by speculative builders are much cheaper than those designed by architects and built under their supervision. To meet this probable question I have collected from quite independent sources and from equally varied parts of the country particulars of cost relating to a number of such houses. To secure as fair a basis of comparison as possible, the total floor area of accommodation in all cases was taken out, the cost reduced to a price per square foot, a much more valuable standard, I believe, than the price per cube foot, which in these days of high pitch, low pitch, flat roofs and bungalows tells very little. The numbers taken, about 30 separate examples of each, are clearly not sufficient for basing any general conclusions upon, but, for what they are worth as an indication fairly arrived at, I will give them. The architect-designed houses show an average cost of house and site costs of 14s. 5½d. per square foot ; the speculative houses show an average selling price of 14s. 11d. per square foot. When reasonable allowance is made for the number of cases in which the architect was building a single house, and those in which the quality of the building may have been higher, there is, I think, sufficient ground here to suggest that more skilled planning and design, so far from being a costly luxury, probably saves more in cost than the modest fees with which it is recompensed. I do suggest seriously to all concerned with speculative building that this matter of employing well-trained and skilled designers is worth their impartial investigation. In this connection they may be reminded that the R.I.B.A. sanctions a specially low scale of fees for the design of houses for builders where the architect's responsibilities end with design, and a scale providing generously for repetitions. To meet the urgent need for improving design at the present time, this scale has been examined by a special committee and further adjusted to the special conditions.

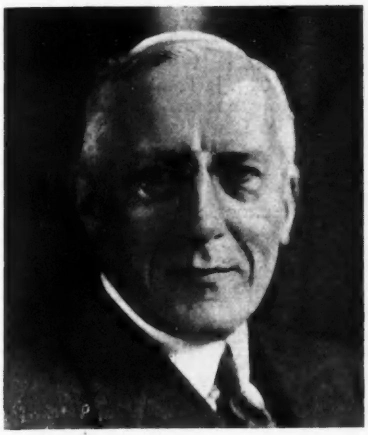
There can hardly be surprise that these ill-planned houses with cramped rooms are in appearance too often further spoiled by a hotchpotch of ill-assorted samples of windows, doors, gables, flats and still less purposeful features, showing a complete absence of the most ele-

OUR SECRETARIES

● 1 ●

IAN MacALISTER

ROYAL INSTITUTE OF BRITISH ARCHITECTS



MR. IAN MACALISTER, M.A. (Oxon.), F.C.I.S., was born at Liverpool in 1878. His father was the late Sir John MacAlister, Secretary of the Royal Society of Medicine, and his grandfather the late Donald MacAlister of Tarbert, Loch Fyne.

Coming to London in 1887, he was educated at St. Paul's School, of which he was a Foundation Scholar, in the reign of the great High Master, F. W. Walker. He went up to Merton College, Oxford, in 1897, as an open Exhibitioner in Modern History. Persuaded to desert his own subject, he obtained Second Classes in the Honours Schools of Classical Moderations and Literæ Humaniores. Taking his degree at the end of 1901, he went to Canada early in 1902, with local rank of Captain, as Secretary and Aide-de-Camp to Major-General the Earl of Dundonald, General Officer Commanding the Canadian Army. Two very strenuous years of staff and organization work took him from end to end of the Great Dominion and in 1904 a political crisis brought the appointment to an end. A short period of work as a journalist was followed by his appointment, in February 1908, as Secretary of the R.I.B.A., in succession to the late W. J. Locke. He has therefore spent just over a quarter of a century at 9 Conduit Street.

That period has been one of growth and development in the R.I.B.A. and its Allied Societies. Subscribing membership of the Institute has risen from 2,200 to 7,000, income from £10,500 to £40,000, assets from £25,000 to £155,000, Trust Funds from £12,800 to £42,300.

In 1908 there were 19 Allied Societies. Now there are 100 Allied and Associated Societies, Branches and Chapters.

mentary appreciation of the need for relationship which is the essence of design.

The plainness of the usual Council housing scheme is sometimes made an excuse for this riot of unrelated features. It is however an excuse only; and in no sense a reason. The plainness and simplicity of Housing Schemes are rightly the outcome of an economy which is appropriate to building aided by public funds. Much of it is restful and pleasing enough, and in general effect often puts to shame the more elaborate jumble of undigested features to be found on the speculative site across the road.

THE INSTITUTION OF STRUCTURAL ENGINEERS

The result of the elections of Officers and Council of the Institution of Structural Engineers for the session 1933–1934 is as follows:—

President: Major A. H. S. Waters, V.C., D.S.O., M.C., M.INST.C.E., M.I.MECH.E., etc.; vice-presidents: Mr. Ewart S. Andrews, B.SC., M.INST.C.E.; Mr. J. T. Saunders, F.R.I.B.A.; Lt.-Col. C. H. Fox, O.B.E., B.SC., F.S.I.; and Professor J. Husband, M.ENG., M.INST.C.E.; hon. secretary: Dr. Oscar Faber, O.B.E., M.INST.C.E.; hon. treasurer: Mr. W. Muirhead, M.INST.C.E.; hon. editor: Mr. H. R. Cox; hon. librarian: Mr. A. J. Taylor, F.R.I.B.A.; hon. curator: Lt.-Col. H. S. Rogers, C.M.G., D.S.O., etc.

Ordinary members of Council: Captain M. Buxton, M.C., M.A., M.INST., C.E.; Professor C. E. Inglis, M.A., M.INST.C.E., A.M.I.MECH.E.; and Messrs. J. Stuart Lewis; J. F. Butler, A.M.INST.C.E.; G. McLean Gibson, O.B.E., M.I.MECH.E., A.M.INST.C.E.; H. J. Collins, M.SC., A.M.INST.C.E., A.M.I.MECH.E.; A. Kirkwood Dodds, M.C., L.R.I.B.A.; P. J. Black, L.R.I.B.A.; W. F. Hutchinson; S. Bylander; C. J. Jackaman, A.M.INST.C.E.; R. Travers Morgan, M.INST.C.E., A.M.I.MECH.E.; J. D. Stitt; W. Douglass-May; E. Granter, B.SC., A.M.INST.C.E.; F. M. Easton; and A. S. Lowe, M.C., A.M.INST.C.E., A.M.I.MECH.E.

WELSH SCHOOL OF ARCHITECTURE

The students of the Welsh School of Architecture played a prominent part in the annual sports of the Technical College, Cardiff, held on Friday, June 1, taking seven firsts out of 11 events.

The two departmental events, the tug-of war and the one mile relay race, were both won by the Welsh School of Architecture, while important events were won by D. K. G. Cumming and D. J. Armstrong, both students in the Architecture School, D. K. G. Cumming winning the 120 yards hurdles, 880 yards flat, and one mile flat, while D. J. Armstrong won both the long jump and the high jump.

LITERATURE

THE LANDSCAPE OF ENGLAND

The Landscape of England. By Charles Bradley Ford. London: Messrs. B. T. Batsford. Price 12s. 6d. net.

IF one had been asked to write a comprehensive book on the landscape of England, to cost not more than 12s. 6d., and to be profusely illustrated, one would have said it was an impossibility. It has, however, been done; the apparently impossible has become an accomplished fact.

Major A. H. S. Waters, V.C., M.I.Mech.E., the new President of the Institution of Structural Engineers. See note on this page.

This book is the eighth of the series on England to be published by this firm, and, as previously, the photographs are not only excellent in themselves but most comprehensive in their range, and the text interspersed with delightful pen sketches by Mr. Brian Cook. In a land where the works of man are so much a part of the landscape it is impossible to ignore these works, and so amongst the superb panoramas over the plain of Worcestershire, the Vale of Evesham, the moors and the Weald, among the pictures of intimate little places such as Boscastle, Lulworth Cove, St. Cross, etc., we find illustrations of many of our famous cathedrals, views of the industrial areas, shipping and so forth.

The text itself obviously provided the most difficult task for the author, for he had to include an enormous amount of matter in a small space, and make it interesting. This was a tremendous task, and in so far as it could ever succeed, it has succeeded admirably; but obviously only a small portion can be read and assimilated at a time. It is, indeed, a book to pick up and gloat over, a book in which one can renew one's acquaintance of places one knew well or discover more about places one did not.

The book is divided into five areas, and although repeated reference is rightly made to the geological formations, it is not treated in this way. Starting in the north of the country, the first area is bounded on the south by Cheshire, Derby, Nottingham and Lincoln; the Midlands by Gloucester and Northampton; the east by Huntingdonshire, Cambridgeshire and Essex; and the south-east and west both by the sea. Each section is provided with a map on which is marked the chief ranges of hills and the important towns and villages.

L. F. R. COOTE

The late F. W. Simon

We regret to record the death of Mr. Frank Worthington Simon, F.R.I.B.A., which took place at his home at Mentone in his seventieth year.

Mr. Simon (writes J. B.) was elected to the Fellowship of the Institute in 1902.

He received his early training in Birmingham and later at the Ecole des Beaux Arts in Paris. He was Tite Prizeman of the R.I.B.A. in 1887. From the earlier 'nineties till about 1902 he practised in Edinburgh, having been latterly for some years in partnership with the late Sir Rowand Anderson (Anderson, Simon and Crawford). On the dissolution of this partnership he won the competition for the Liverpool Cotton Exchange in association with Mr. Matear of Liverpool.

Latterly he had devoted himself principally to competition work, in which his chief success consisted of the competition for the new Parliament House at Winnipeg, Canada, the erection of which building he himself saw through on the spot.

Mr. Simon was a man of great personal charm. He had an unusually facile pencil and was no mean executant in water-colour painting. He had more than "a streak of genius" in design, and would assuredly have risen to the highest eminence in his profession had it not been for a certain wandering instinct that seemed to be deeply ingrained in his nature, and that kept him from allowing himself to take root in any one spot.

Trade Items

Resulting from the death of Mr. Sanderson, who was associated with Messrs. Sidney Flavel & Co., Ltd., stove makers, Leamington, for sixty-five years, we understand that the following appointments have been made—Additional directors: Miss I. Lane and Mr. S. W. B. Flavel, B.SC.; Mr. G. Westley to be secretary and accountant; Mr. Burton-Smith to be assistant secretary and cashier. Miss I. Lane has been associated with the company for fourteen years, and has been private secretary and chief of office administration. Mr. S. W. B. Flavel is the sixth generation of this old private family business—his uncle, Mr. Percival Flavel, J.P., being the present proprietor.

*

The new Khedive Ismail Bridge at Cairo was opened by H.M. King Fuad I on June 6.

In the absence of Mr. Charles Mitchell, Chairman of Dorman Long & Co., Ltd., designers and builders of the bridge, who was unavoidably prevented from attending, the Company was represented at the Opening Ceremony by Major F. W. Stephen. Major Stephen carried with him a lapis lazuli and gold fountain pen stand suitably inscribed for presentation by the contractors to H.M. King Fuad I.

*

The ballroom walls and ceiling of the Ace of Spades Club, Kingston, are carried out wholly in black—except for a ceiling panel of silver above the maple floor. Even the floor, surrounding the maple centre for dancing, is black, Dunlop rubber flooring being used both on account of its purely jet-black colour and for quietness. The furniture is a brilliant red.

The combined effect is striking but is only to be appreciated when the room is in use. This, in fact, was the architect's (E. C. Musman) intention, his view being that the colour and decorative schemes of ballrooms should not be complete in themselves but should rather provide backgrounds for the people using them—and in particular for the dresses of the women. The ballroom stairs and the Club entrance hall are also carried out in black with green Dunlop rubber flooring.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

The Surrey C.C. has authorized the prepara- of plans for the provision of a centralized laundry at the FARNHAM Institution, the cost being estimated at £11,500.

Plans passed by the SOUTHGATE U.D.C. : Eight shops and flats, Winchmore Hill Road, for Mr. C. W. Dennis ; extensions to premises, Green Lanes, for The London Co-operative Society, Ltd. ; four maisonettes, Myddelton Gardens, for the New River Co., Ltd. ; depot, Reservoir Road, for United Dairies, Ltd. ; sub-station, Vicars Moor Lane, for The N.M.E.P.S. Co. ; eight shops, The Broadway, for Mr. T. Woolnough ; extension to bakehouse, The Broadway, for Mr. C. D. Walden ; 16 flats, Station Road, for Mr. C. E. Ward ; layout of 16 houses, Waterfall Road, for Mr. F. Bate ; alterations, 27 The Broadway, for Messrs. Ruddock & Co. ; layout of nine houses, Bourne Hill, for Mr. C. E. Ward ; two houses, Vicars Moor Lane, for Mr. W. Drinkwater ; six houses, Brookdale, for James Estates, Ltd. Plans submitted : alterations to building, Russell Road, for The Hoffman Le-Roche Chemical Works, Ltd. ; three shops, Bowes Road, for Mr. P. M. Fraser ; public-house, Enfield Road, for Messrs. Dudley Newman, Elliott and Archer ; additions to Holy Trinity Church, Green Lanes, for Messrs. Alder, Turrill and Danvers ; two houses, Oakthorpe Road, for Mr. H. C. Keene, Jnr.

Plans passed by the TEDDINGTON U.D.C. : Four shops, Stanley Road, for Miss I. A. Dunton ; two houses, Munster Road, for Mr. F. J. P. Disney ; shop, Stanley Road, for Mr. B. H. Parker ; two houses, Connaught Road, for Mr. A. Gray.

SOUTHERN COUNTIES

Plans passed by the BRIGHTON Corporation : Four bungalows, Vernon Avenue, for Mr. H. King-Jones ; two blocks of 33 flats, Crescent Park Road, and Brewer Street, for Mr. T. J. Braybon ; four houses, Ditchling Road, for Sussex Property and Building Co. ; two houses, Rosebery Avenue, for Mr. W. Rason ; shop and six houses, Whitehawk Road, for Mr. F. J. Wellman ; Guildroom, Whitehawk Road, for Brighton Co-operative Society ; five houses, Stanmer Park Road, for Mr. W. A. Fuller ; 24 houses, Carden Avenue estate, and flats, Widdicombe Way, for Messrs. Braybons, Ltd. ; 65 houses, Ladies Mile estate, Patcham, for Messrs. G. Ferguson and Son.

Plans passed by the GUILDFORD Corporation : Three houses, Downs estate, for Messrs. R. Holford & Co. ; two houses, Downs estate, for Mrs. L. Cook ; two houses, Mount Farm estate, for Mr. H. L. Clarke ; two houses, Beckenham Road, for Mr. C. T. Corps ; two houses, Wendy Crescent, for Mr. R. C. Whitemore ; two houses, Shepherds Lane, for Messrs. W. A. Harding, Ltd. ; new premises, North Street, for Messrs. J. Perring, Ltd. ; shops and flats, corner London Road and Epsom Road, for Greater London Estates Development Co., Ltd. ; two houses, Downs estate, for Mrs. A. M. Walton.

Plans passed at HASTINGS : Additions, "The Red Lion" public-house, Stone Street, for Mr. John H. Howard ; two bungalows, Keppel Road, for Messrs. Jeffery and Bowcock ; alterations, 50 Queen's Road, for Messrs. Oxley and Burleigh ; extensions, Robertson Hotel, for Messrs. Ward, Son and Wray ; two houses, Morningside, Elphinstone Road, for Mr. J. Hunt ; alterations and additions, 19 Russell Street, and 19 Queen's Road, for Messrs. J. H. Dewhurst, Ltd. ; alterations, 18 Marina, St. Leonards, for Mr. A. J. Coomber ; additions, 61 Marina, St. Leonards, for Messrs. Henry, Ward, Son and Wray ; additions, 5 Springfield Road, for Messrs. Callow and Callow ; boiler house, rear New Pavilion, Hastings Pier, for Messrs. Callow and Callow ; alterations, 10 High Street, for Mr. L. Towner ; four houses, Harold Road, for Mr. J. Hunt ; three houses, Sedlescombe Road, for Mr. J. S. D. Hicks ; four houses, Blacklands Drive and Ochiltree Road, for Messrs. Jeffery and Bowcock ; alterations, 87 London Road, St. Leonards, for Mr. D. Newton Padgham ; huts, Glyne Gap, St. Leonards, for Mr. S. F. Stephens ; shop additions, 33 Sedlescombe Road, for Mr. J. E. Maynard ; additions, rear Tivoli Hotel, Battle Road, for Messrs. Henry Ward, Son and Wray ; 12 houses, Hole Farm estate, for Messrs. Callow and Callow ; new road and sewers, Hole Farm estate, for Messrs. Jeffery and Bowcock.

Plans passed by the OXFORD Corporation : 22 houses, Cricket Road, for Mr. A. G. Simmons ; layout, recreation ground, Cowley Road, for Messrs. N. Moss and Son, Ltd. ; boot factory, St. Mary's Road, for Oxford Co-operative Society, Ltd.

EASTERN COUNTIES

Plans passed at CHELMSFORD : Café and flat, Princes Road, for Messrs. W. J. Wade & Co. ; two houses, Vicarage Road, for Mr. W. J. Aldred ; two houses, Springfield Street, for Mrs. F. Luckin Smith ; 36 flats, New Writtle Street, for Dr. K. S. Storrs ; alterations, 6 Duke Street, for Mr. A. W. Amos ; offices and shop, Rainsford Road, for Messrs. G. Hawkes and Sons ; shop, Wood Street, for Mr. W. Mawhood.

SOUTH-WESTERN COUNTIES

Plans passed at CHELTENHAM : 12 houses, Hatherley Road, for Messrs. Wheeler and Mansell ; 12 houses, Naunton Way, for Naunton Estates, Cheltenham, Ltd. ; four houses, West Drive, Pittville, for Mr. G. A. M. Hall ; conversion into two houses, Grove House, Montpellier Grove, for Mrs. R. L. Instone ; alterations, Little Theatre, Bath Road, for Madame Irving; four houses, Painswick Road, for Messrs. Mark Williams & Co. ; rebuilding workshop, rear 47 Winchcombe Street, for Mr. D. F. Hill ; additions, Belgrave Lodge, Montpellier Terrace, for Mr. J. Ebdon ; conversion of stables into house, Arle Road, for Mr. G. Bliss ; shop and house, Alstone Lane, for Mr. W. Andrews ; alterations and additions, Clarence Street, for Cheltenham and Gloucester Building Society ; alterations, 101 Albion Street, for Messrs. Sharpe and Fisher ; development, Ewen's Farm, Haywards Road, Charlton Kings, for Naunton Estates, Ltd. ; eight houses, Bouncer's Lane, Prestbury, for Mr. Jenkins ; alterations, School house, Stoke Orchard, for Mr. C. H. Groves ; shop and showroom, Lyefield Road, Charlton Kings, for Mr. E. J. Fear.

Plans passed at PLYMOUTH : Four bungalows, Kenilworth Road, for Mr. F. Westcott ; two houses, Brean Down Road, for Mr. E. J. Morrish ; four houses, Alma Road, for Messrs. G. H. Smith and Son ; 12 houses, Mainstone Avenue, for Messrs. Curtis and Steer ; shops and houses, William Street, Devonport, for Messrs. Cohen and Fredman ; shop, Welbeck Avenue, for Mr. F. W. May ; two streets, off Alma Road, for St. Aubyn Estates, Ltd. ; eight houses, St. George's Avenue, for Mr. E. Murch ; shop, Cobourg Street, for Millbay Laundry Co. ; alterations and additions, 75, Mutley Plain, for Millbay Laundry Co. ; hall, committee rooms and offices, Victory Street, for The Ford Labour Association ; alterations and additions, 198 and 199 Union Street, for Williams' Café ; two houses, Cemetery Road, for Mr. G. Holmes.

MIDLAND COUNTIES

The BIRMINGHAM Corporation is to adapt the old infectious diseases hospital in Lodge Road, as a mental institution, at a cost of £66,000.

The BIRMINGHAM Corporation has prepared a scheme for the development of the Sycamores estate, Yardley. The cost is estimated at £84,500, and provision is made for the erection of 304 maisonettes.

The BIRMINGHAM Corporation is to erect a clinic in Lancaster Street at a cost of £13,880.

The BIRMINGHAM Corporation is to undertake road works at a cost of £17,000, and sewerage and drainage works at a cost of £70,000, in the Quinton Hill district.

Reporting on flood prevention works and the improvement of the Rivers Teme and Rea and the reconstruction of the Rea Valley main sewer, the BIRMINGHAM Corporation states that the proposed works may be summarized as follows :—Contract 1, River improvements, £277,000 ; Contract 2, Sewerage, £145,000 ; Contract 3, River improvements, £378,000 ; Contract 4, Sewerage, £64,000 ; total £864,000. This work will probably take about four years to complete. The Corporation is to obtain tenders for the first two contracts as early as possible so that some advance may be made during the coming summer on the works in the centre of the city.

Plans passed at MANSFIELD : Two houses, Black Scotch Lane, for Mr. F. Fowler ; two bungalows, Chesterfield Road, for Messrs. Thos. Smith and Sons, Ltd. ; two houses, Mill Street, for Mr. G. E. Taylor ; four houses, Skerry Hill, for Mr. B. Tack ; shop, Broxtowe Drive, for Mr. R. Allen ; two shops, Church Street, for Messrs. J. H. Dewhurst, Ltd. ; 10 houses, Eakring Road, for Mr. R. Lane ; 18 houses, Chesterfield Road, for Mr. A. Farnsworth ; additions to works, Rock Valley, for Messrs. Barringer, Wallis and Manners, Ltd.

NORTHERN COUNTIES

The BIRKENHEAD Corporation is to obtain tenders for the erection of a block of 12 three-story flats at St. Mary's Gate area, at an estimated cost of £6,500.

Plans passed by the BLACKPOOL Corporation : Four houses, Dalewood Avenue, for Mr. T. Mercer ; two houses, Queen's Drive, for Mr. P. Wood ; four houses, Promenade, for Messrs. Parkinson & Co., Ltd. ; five houses, Conway Avenue, for Mr. A. A. Holt ; two houses, Dunes Avenue, for Mr. A. Turner ; four houses, Wynwood Avenue, for Messrs. H. Fielding and Son ; three houses, St. Annes Road, for Messrs. Hayes (Blackpool), Ltd. ; two houses, Condor Grove, for Messrs. Matthews and Buttery ; two houses, Manchester Road, for Messrs. Cardwell Bros ; four houses, Mayfair Road, for Messrs. J. Gregson and Son ; six houses, Harcourt Road, for Mr. H. Suthers ; four houses, Bryning Avenue, for Mr. R. H. Cunliffe ; four houses, Hartford Avenue, for Mr. S. A. Howard ; boiler house off Palatine Road, for Pure Rock Co. ; alterations to stores, Andsell Road, for Blackpool Co-operative Society ; schools, Glastonbury Avenue, for Canon Lupton.

The HULL Corporation has approved an expenditure of £40,000, in connection with the immediate building scheme at Winestead mental colony.

The LEEDS Corporation is inviting tenders for the erection of 32 houses on the Hillidge Road estate, 38 houses on the Torre estate, and 100 houses on Potternewton housing estate.

Plans passed by the MORECAMBE Corporation : New streets off Albany Road, for Messrs. Harrison and Moore ; building estate, off Westgate, for Mr. H. Procter ; garage and showroom, Marine Road West, for Messrs. Fahys, Ltd. ; two houses, Twemlow Parade, for Mr. H. Pinder ; two houses, Royds Avenue, for Messrs. Swithenbank and Ladell ; 62 houses, Tranmere Park estate, for Messrs. F. and H. Obank ; bungalows, Heysham Road, for Mr. H. Fairbank ; two houses, Regent's Park Avenue, for Mr. H. Marsden.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	Aberdare ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	Banbury ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Counties	1 4½	1 0½
B	Bicester ..	S. ties	1 2	10½
	Birkenhead ..	N. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	Cambridge ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A	Colchester ..	E. Counties	1 4	1 0
A_2	Colne	N.W. Counties	1 5½	1 1¼
A_1	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
	Cumberland ..	N.W. Counties	1 4	1 0
A	Darlington	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	Eastbourne	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	Felixstowe	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	Gateshead	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	Halifax ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	Ilkley ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	Jarrow ..	N.E. Coast	1 5½	1 1¼
A	Keighley ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	Lancaster ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	Macclesfield	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	Nantwich ..	N.W. Counties	1 4½	1 0½
A_2	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	Oakham ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	Paisley ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	Queensferry	N.W. Counties	1 5½	1 1¼
A_2	Reading ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	St. Albans ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	Tamworth ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth ..	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District	N. E. Coast	1 5½	1 1¼
A	Wakefield	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	Yarmouth ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		7	6
Building Sand	,,		7	9
Washed Sand	,,		8	9
2" Broken Brick	,,		8	3
¾" ,, ,,	,,		11	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	8	8	0
Luton Facings	,,	8	0	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	24	10	0
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	-	1/0½	10	-
Figured Oak 1 side	8½	7	-	10	8	-	11½	-	-	1/6	-	-
Plain Oak 1 side	6½	6	-	7½	7	-	9½	-	-	1/-	-	-
Oregon Pine	5	4	-	5½	5	-	6	-	-	-	-	-

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1½"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
PlainSockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61¼	,, water	47½
Steam	57½	,, steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	2	6
,, drawn pipes	,,		19	6
,, soil pipe	,,	1	6	6
,, scrap	,,		14	6
Solder, plumbers'	lb.			10
,, fine do.	,,		1	0
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3" s.	3" d.	4" s.	4" d.	6" s.	6" d.
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2¾
,, ,, 26 oz. ,, ,, ,,	,,					3¼
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	1
Boiled oil	,,		2	3
Turpentine	,,		5	0
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		2	9
,, to reduce levels n/e 5' 0" deep and cart away	Y.C.		8	6
,, to form basement n/e 5' 0" deep and cart away	,,		9	0
,, ,, 10' 0" deep and cart away	,,		9	6
,, ,, 15' 0" deep and cart away	,,		10	0
If in stiff clay . . . add	,,		2	6
If in underpinning ,,	,,		4	0
Digging, return, fill and ram ,,	,,		4	0
Planking and strutting to sides of excavation	F.S.		1	0
,, ,, to pier holes	,,			5
,, ,, to trenches	,,			5
,, ,, extra, only if left in	,,			3
Hardcore, filled in and rammed	Y.C.		10	0
Portland cement concrete in foundations (6-1)	,,	1	6	0
,, ,, ,, (4-2-1)	,,	1	12	6
,, ,, ,, underpinning	,,	1	16	0
Finishing surface of concrete, spade face	Y.S.			7

DRAINLAYER

		4" s. d.	6" s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions		3 9	4 6
Gullies and gratings	,,	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	28	10	0
,, ,, in cement	,,	29	15	0
,, Stocks in cement	,,	35	15	0
,, Blues in cement	,,	52	0	0
Extra only for circular on plan	,,	2	0	0
,, backing to masonry	,,	1	10	0
,, raising on old walls	,,	2	0	0
,, underpinning	,,	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	,,			5½
,, ,, ,, red brick facings and pointing	,,			11
,, ,, ,, blue brick facings and pointing	,,		1	4
,, ,, ,, glazed brick facings and pointing	,,		3	6
Tuck pointing	,,			7
Weather pointing in cement	,,			3½
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	1

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	,,		13	6
Artificial stone and do.	,,		13	0
York stone templates, fixed complete	,,		10	6
,, thresholds	,,		13	6
,, sills	,,	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	,,		4	6
,, ,, roofs	,,		6	6
,, ,, trusses	,,		7	6
,, ,, partitions	,,		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" ,, ,, ,, ,,	,,	1	17	6
1¼" ,, ,, ,, ,,	,,	2	3	0
¾" × 2" fir battening for Countess slating	,,		9	6
Do. for 4" gauge tiling	,,		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
,, ,, ,, 2 ,,	,,		2	9
,, ,, ,, 3 ,,	,,		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1¼" ,, ,, ,, ,, ,,	,,		1	6
2" deal wrought rounded roll	F.R			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	,,	2	12	6
1½" do.	,,	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.	,,		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" ,, ,,	,,	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	3	9
2" ,, ,, ,,	,,	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" ,, ,, ,,	,,	2	8
1½" ,, but moulded both sides	,,	2	4
2" ,, ,, ,,	,,	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" ,, ,,	,,	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2	6
1½" deal moulded wall strings	,,	2	1
1½" ,, outer strings	,,	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" ,, ,,	,,	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	,,	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	,,		19	6
Do. stanchions with riveted caps and bases and do.	,,		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	17	0
Do. in flashings	,,	1	19	6
Do. in covering to turrets, etc.	,,	2	6	6
Do. in soakers	,,	1	12	6
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 0	1 2	1 5	2 1	3 0	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 3
Do. to stop ends	,,	6½	8	9	11	1 3	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	6 3	8 9	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	9 0	11 0	14 6	20 6	47 0	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	,,	1	0
Do. outlets	,,	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	,,	5	0

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	,,		3	6
Lathing with sawn laths to ceilings	,,		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		1	9
Do. vertical	,,		2	3
Rough render on walls	,,		1	4
Render, float and set in lime and hair	,,		2	0
Render and set in Sirapite	,,		2	2
Render, backing in cement and sand, and set in Keene's cement	,,		3	1
Extra, only if on lathing	,,			4
Keene's cement, angle and arris	F.R.			6
Arris	,,			2
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			1¼
1" granolithic pavings	Y.S.		3	6
1½" ,,	,,		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		17	6
9" × 3" ,, ,, ,, ,,	,,	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	,,		8½
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

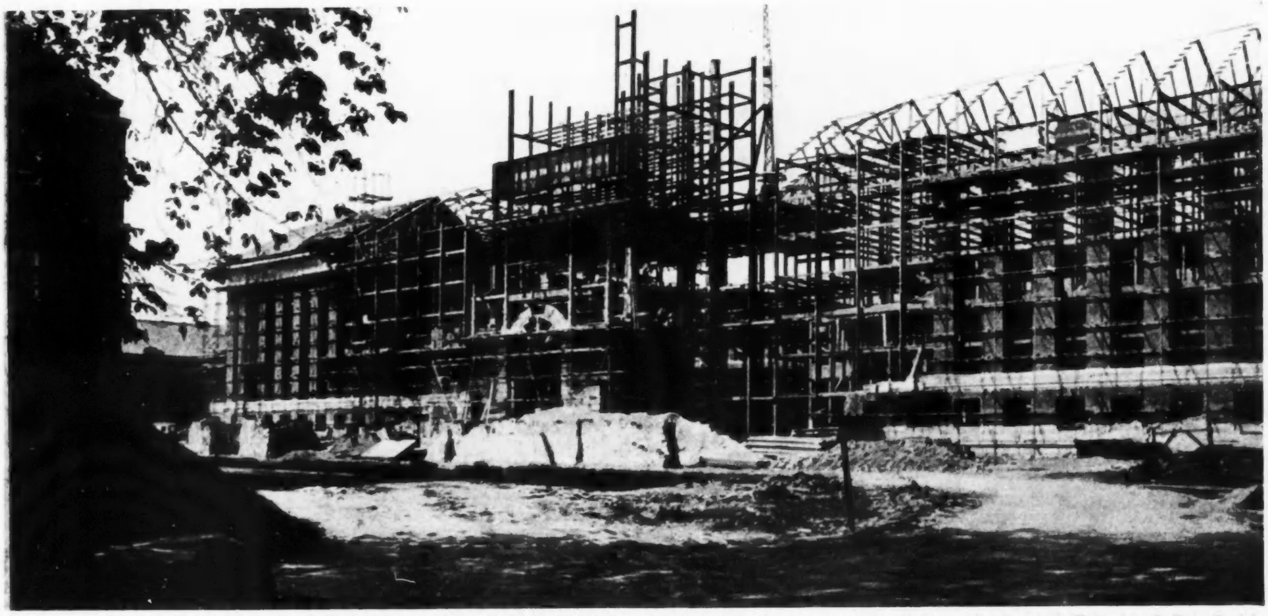
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	,,		9
Do. with washable distemper	,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3	3
Do. on woodwork	,,	3	0
Do. on steelwork	,,	3	0
Do. and brush grain and twice varnish	,,	5	6
Stain and twice varnish woodwork	,,	1	11
Stain and wax-polish woodwork	,,	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . from	,,	2	9

Supplement to THE ARCHITECTS' JOURNAL for June 15, 1933

CAMBRIDGE UNIVERSITY: NEW LIBRARY

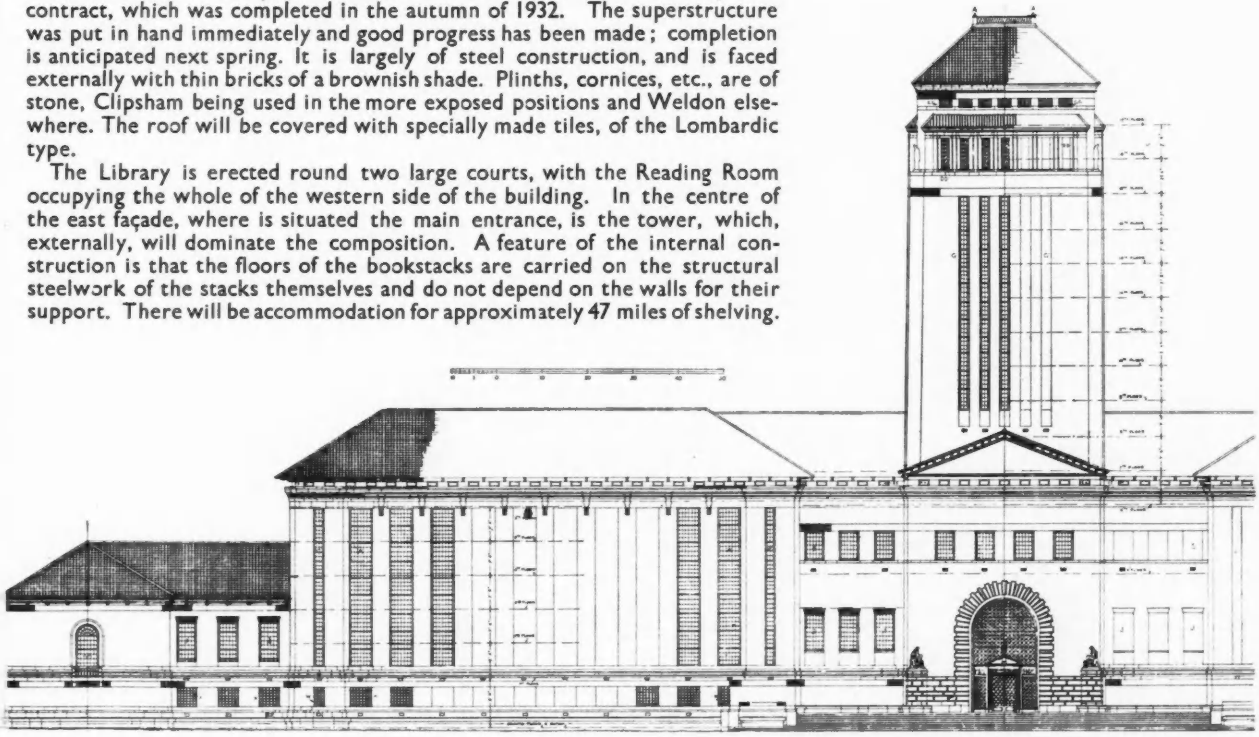
DESIGNED BY SIR GILES GILBERT SCOTT, R.A.

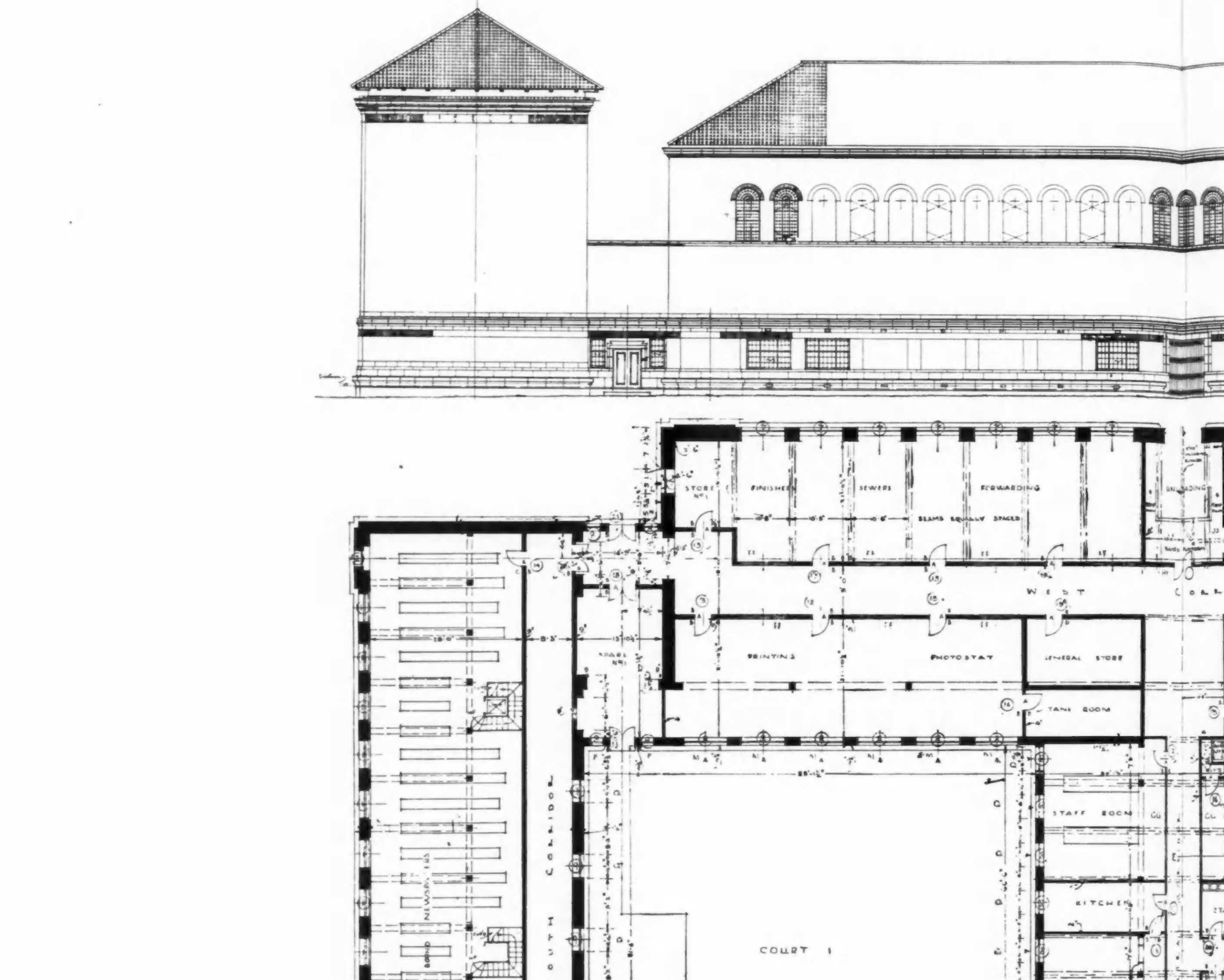


THE EASTERN FRONT, WITH THE TOWER, UNDER CONSTRUCTION

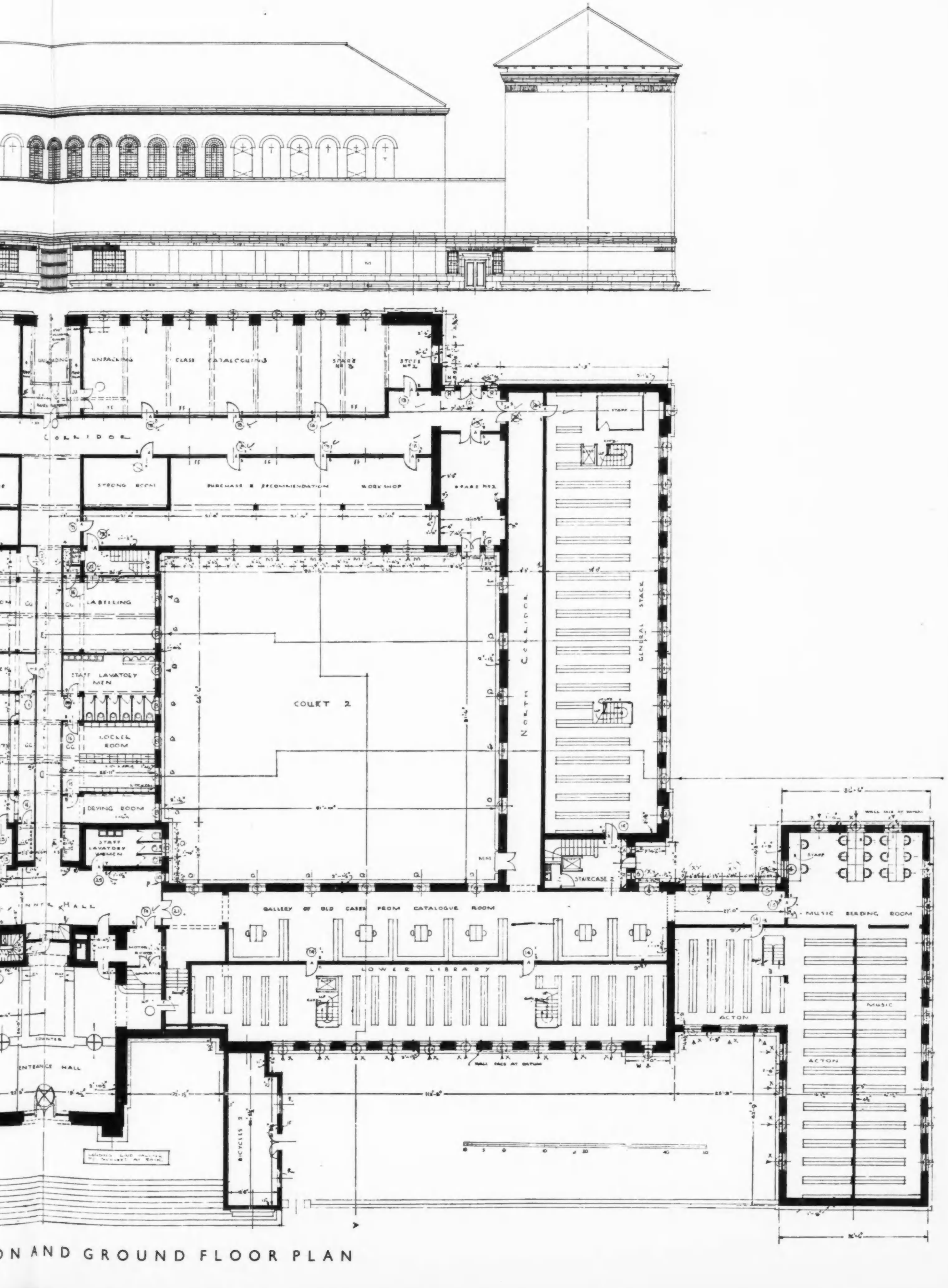
THIS building stands on a comparatively level site, approached from Burrell's Walk (which branches off Queen's Road), and faces the western boundary of the new Clare College Memorial Buildings. The foundations are of reinforced concrete pile construction and were dealt with as a separate contract, which was completed in the autumn of 1932. The superstructure was put in hand immediately and good progress has been made; completion is anticipated next spring. It is largely of steel construction, and is faced externally with thin bricks of a brownish shade. Plinths, cornices, etc., are of stone, Clipsham being used in the more exposed positions and Weldon elsewhere. The roof will be covered with specially made tiles, of the Lombardic type.

The Library is erected round two large courts, with the Reading Room occupying the whole of the western side of the building. In the centre of the east façade, where is situated the main entrance, is the tower, which, externally, will dominate the composition. A feature of the internal construction is that the floors of the bookstacks are carried on the structural steelwork of the stacks themselves and do not depend on the walls for their support. There will be accommodation for approximately 47 miles of shelving.

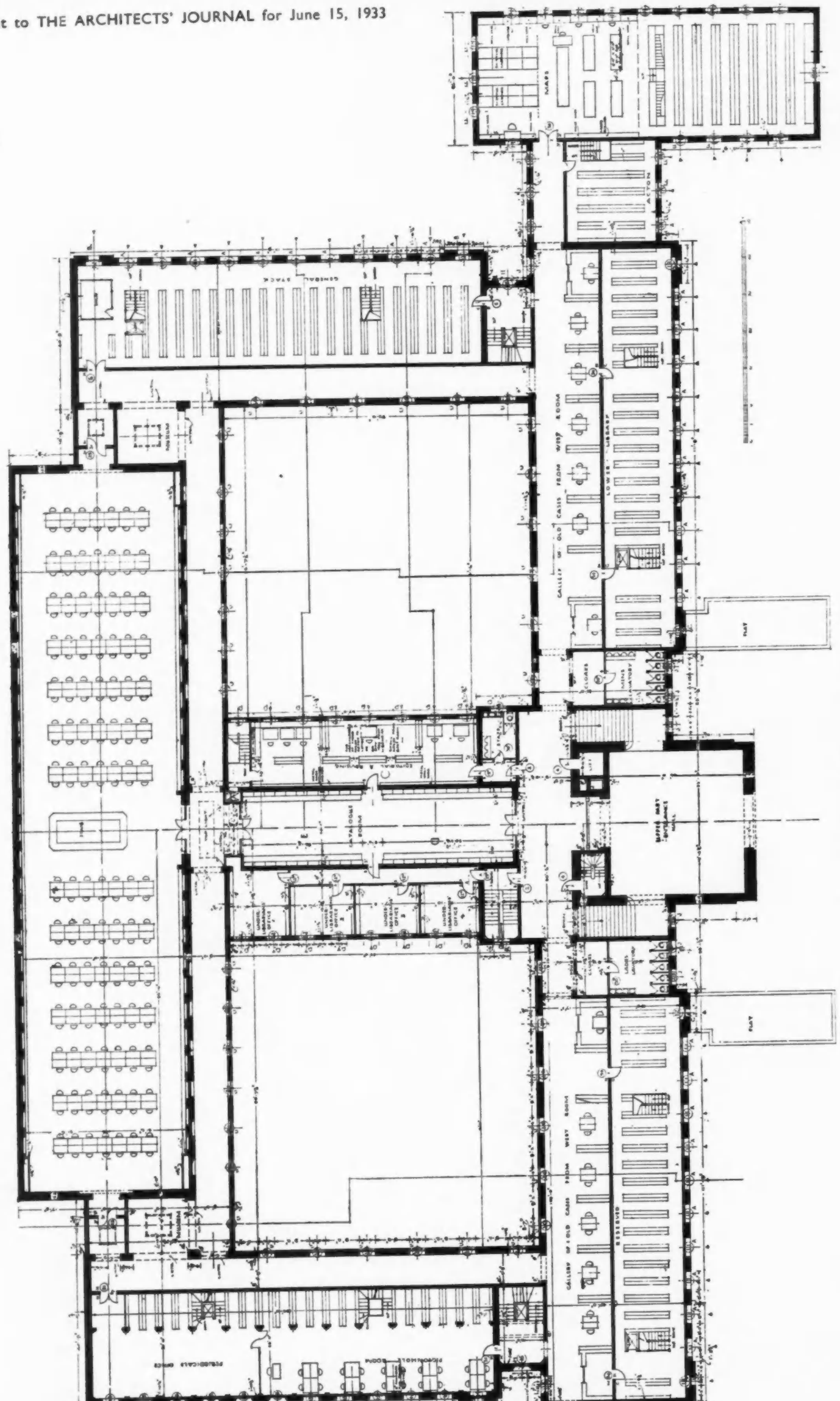



STORE No 1
FINISHERS
SEWERS
FORWARDING
BEAMS EQUALLY SPACED
UNLOADING
WEST
CORR
PRINTING
PHOTOSTAT
GENERAL STORE
TANK ROOM
SPARE No 1
NEWSPAPERS
BOUND
SOUTH CORRIDOR
COURT 1
STAFF ROOM
KITCHEN
REFRESHMENTS
LIBRARIAN'S STAIR
STAIRCASE 1
MANUSCRIPTS
GALLERY OF OLD CASES FROM SOUTH ROOM
INNER HA
RESERVED
SWITCH ROOM
ORIENTAL
ORIENTAL
COUNTER
ENTRANCE HAL
BICYCLES
LOW WALL

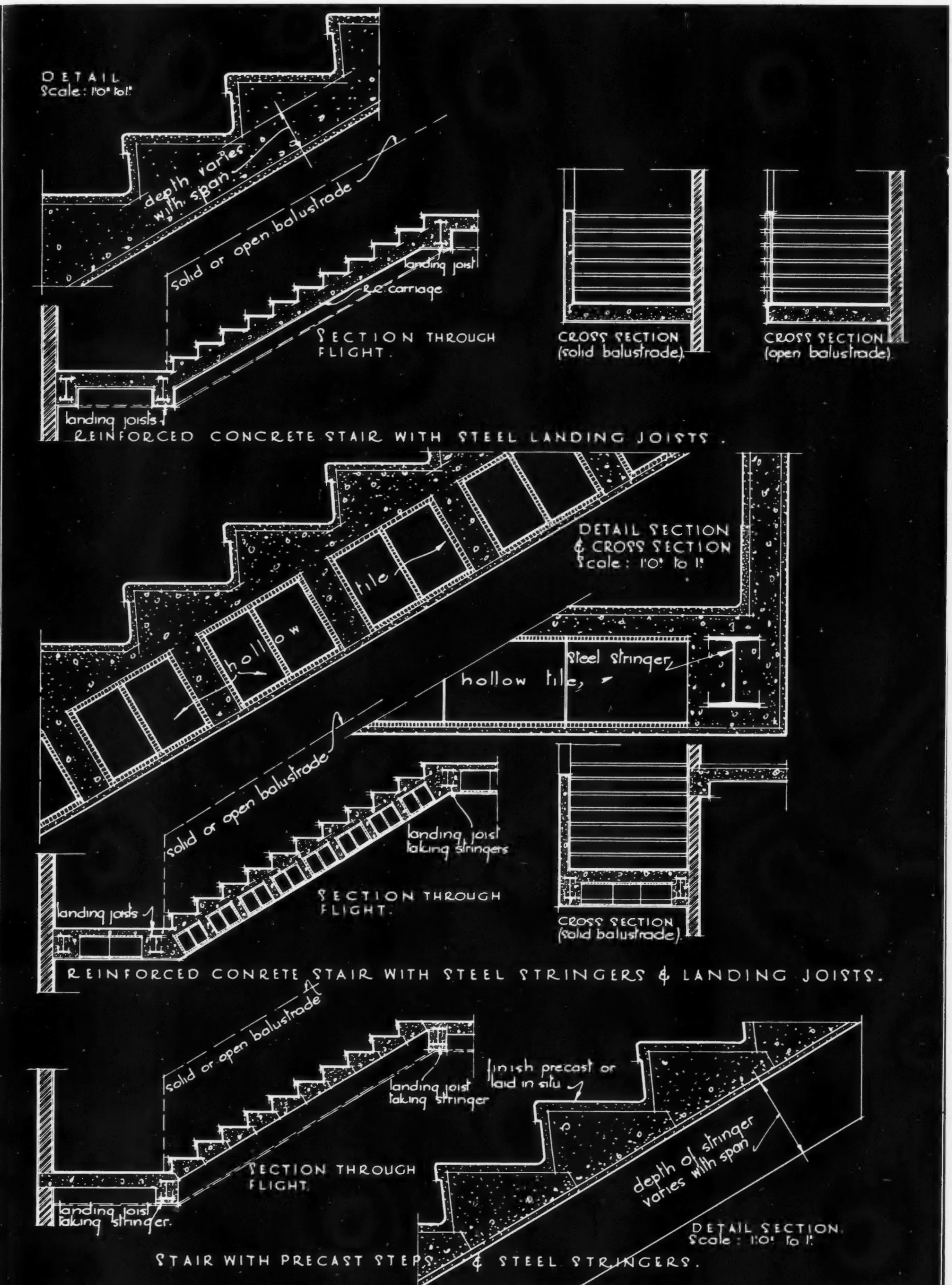
THE WEST ELEVATION AND


UNLOADING
UNPACKING
CLASS CATALOGUING
SPARE No 3
STORE No 2
CORRIDOR
STRONG ROOM
PURCHASE & RECOMMENDATION
WORKSHOP
SPARE No 2
LABELLING
STAFF LAVATORY MEN
LOCKER ROOM
DRYING ROOM
STAFF LAVATORY WOMEN
COURT 2
NORTH CORRIDOR
GENERAL STACK
STAFF
STAIRCASE 2
HALL
LIFT
MOTOR ROOM
GALLERY OF OLD CASES FROM CATALOGUE ROOM
LOWER LIBRARY
COUNTER
ENTRANCE HALL
BICYCLES 2
ACTON
MUSIC READING ROOM
MUSIC
ACTON
WALL FACE AT DATUM
0 5 0 10 20 40 50

ON AND GROUND FLOOR PLAN



THE MAIN FIRST FLOOR PLAN


DETAIL
Scale: 1'0" to 1"
depth varies with span
solid or open balustrade
landing joist
R.C. carriage
SECTION THROUGH FLIGHT.
landing joists
CROSS SECTION (solid balustrade).
CROSS SECTION (open balustrade).
REINFORCED CONCRETE STAIR WITH STEEL LANDING JOISTS.
DETAIL SECTION & CROSS SECTION
Scale: 1'0" to 1"
tile
hollow
steel stringer
hollow tile
solid or open balustrade
landing joist taking stringers
landing joists
SECTION THROUGH FLIGHT.
CROSS SECTION (solid balustrade).
REINFORCED CONRETE STAIR WITH STEEL STRINGERS & LANDING JOISTS.
solid or open balustrade
finish precast or laid in situ
landing joist taking stringer
SECTION THROUGH FLIGHT.
landing joist taking stringer.
depth of stringer varies with span
DETAIL SECTION.
Scale: 1'0" to 1"
STAIR WITH PRECAST STEPS & STEEL STRINGERS.

DIAGRAMMATIC LAYOUT OF REINFORCED CONCRETE STAIR CONSTRUCTION
SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

Supplement to THE ARCHITECTS' JOURNAL for June 15, 1933

INFORMATION SHEETS

• 22 •

CONCRETE STAIRS: I

•

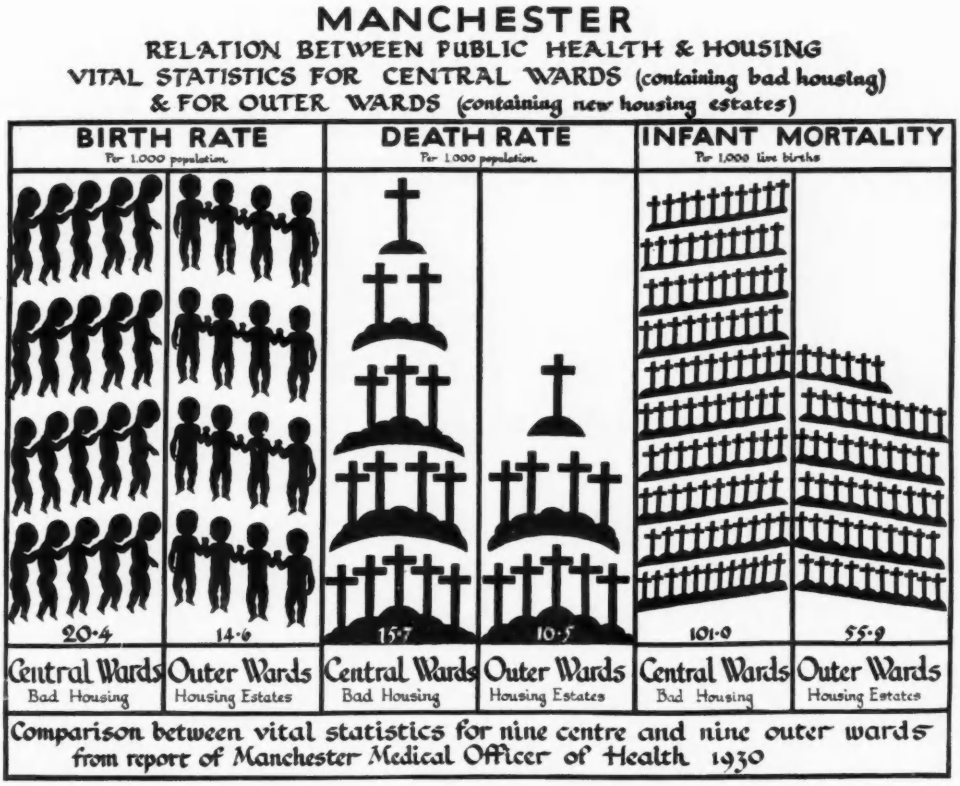
OF the set of nine Sheets now in progress, devoted to staircases, this, the sixth, is one of a pair illustrating various lay-outs and methods of construction in reinforced concrete; its fellow will be published next week. Thereafter, another pair will follow on similar lines, but dealing with pressed steel construction.

The following is a full list of the subjects previously issued:—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes.
17. May 10—Stairway Diagrams.
18. May 17—Risers for Stairs.
19. May 24—Stair Risers and Flights.
20. June 1—Public Exit Stairs.
21. June 8—General Buildings Stairs.

"—GIVING PLACE TO NEW"

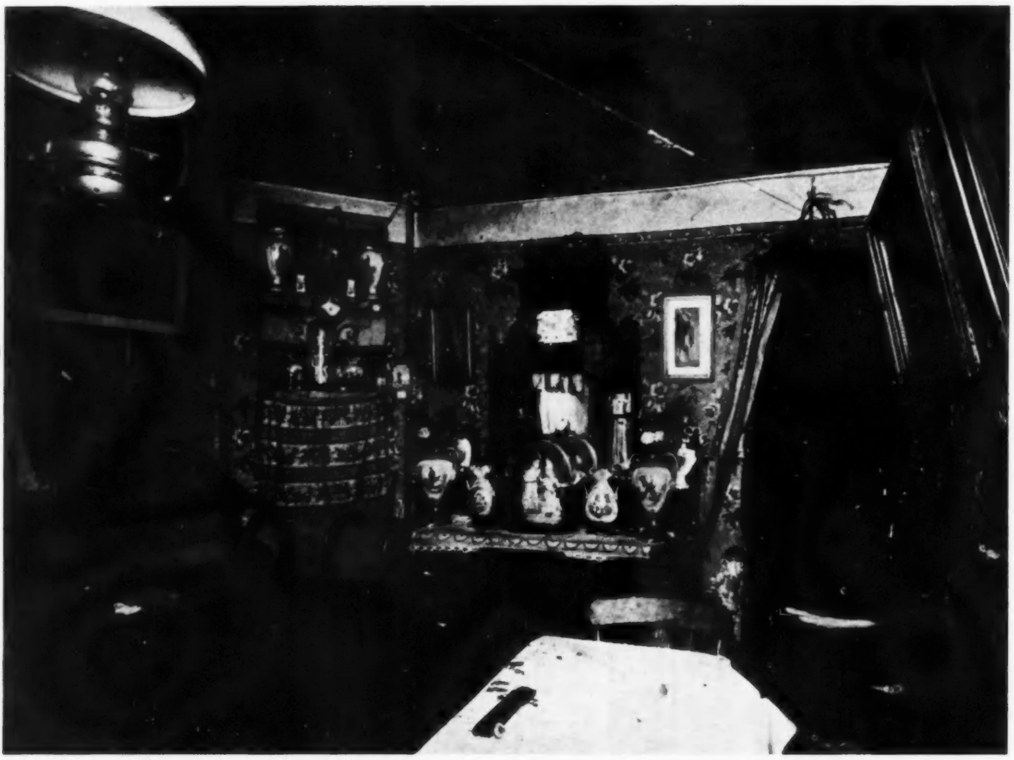
SMALL BEGINNINGS WITH GREAT AIMS

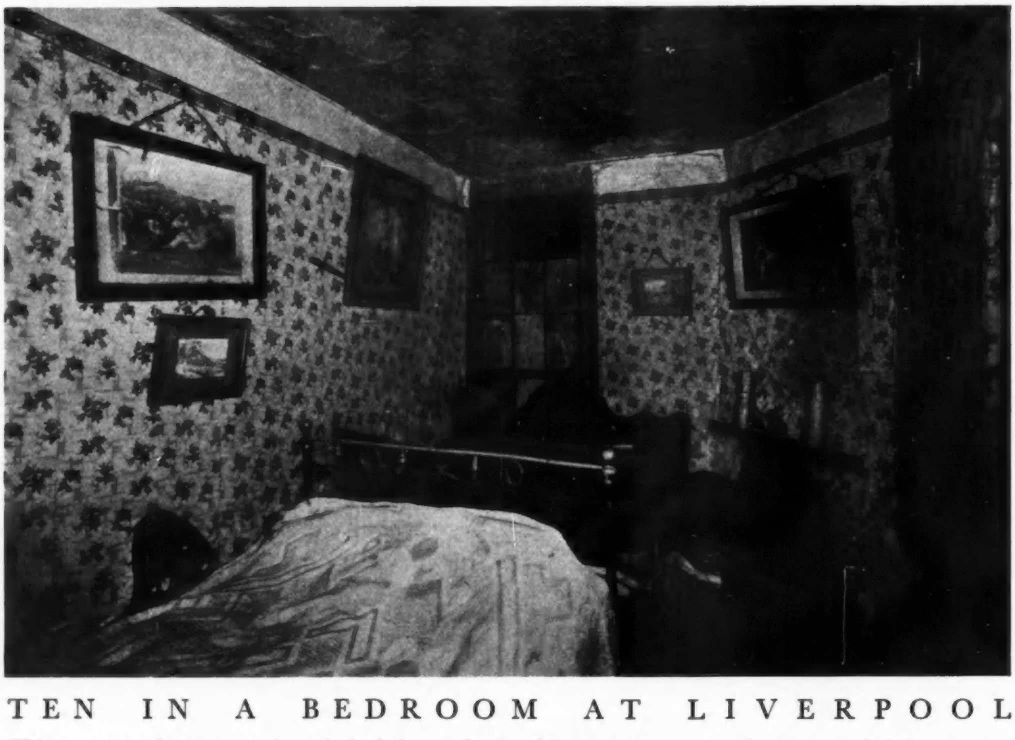


THE object of this special issue is to set forth data about living conditions in our great cities. They indicate the magnitude and ramifications of the problem.

The Manchester chart shows what is happening as a result of improved housing : while deaths (and births) fall by a third in better conditions, the infant mortality is halved.

This Liverpool photograph shows the new Corporation dwellings and, in the foreground, a sample of the old dismal tenements they are displacing.

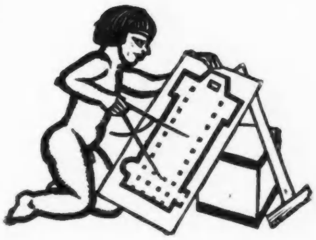




TEN IN A BEDROOM AT LIVERPOOL

This two-roomed apartment is typical of those to be found in every slum area in the country. It is by no means one of the worst examples, and, as the photographs show, bears striking evidence of the struggle made by the family to keep the home respectable, clean and tidy.

The living room (above) is connected by a passage to the bedroom (below) and lavatory. These two rooms are inhabited by a man, his wife and eight children. The décor *of the living room includes mistletoe, clothes-lines, mangle and perambulator. The bedroom where, according to official information, the whole family of ten sleep, shows one bed and two empty shell cases. Note the state of the ceiling. The rooms are so dark that artificial light is necessary during the day.*



THE CONSCIENCE OF THE NATION HAS BEEN ROUSED

CHARLES JOHN HUFFAM DICKENS—to give him his full name—wrote *Hard Times* just about eighty years ago. It is hardly necessary to say that it roused the Conscience of the Nation. Enlightened self-interest found it upsetting to think of human beings living and dying in the iron slum of Coketown.

Since that day the Conscience of the Nation has been very busy. If it has flagged it has been quickly whipped back to work. Quite recently the Prince of Wales, the Archbishops, Sir Hilton Young, Mr. Howard Marshall, Mr. H. V. Morton, the B.B.C., *The Times*, *The Daily Telegraph*, *The Manchester Guardian*, *The Daily Herald*, *The Daily Express* and *The Listener*, have each in their own way roused the Conscience of the Nation to fresh heights.

In the meantime Coketown has not altered. Today, after eighty years of Roused Conscience, its children may be a little better treated, its machinery a little less elephantine, but its houses and slums are the same houses and slums—bathless, w.c.-less, often waterless—that Dickens described with picturesque detail in 1854. Of the 125,000 houses in Leeds, a typical Coketown, 75,000 are back-to-backs and 61,000 of these have no water-closet; 350,000 out of a population of 480,000 live in them. The main difference between Dickens's day and ours is that the houses are now eighty or seventy or fifty years more decayed, and harbour a more concentrated animal, if not human, life.

Clearly the Roused Conscience, regarded as a weapon of offence against *slum*, though a busy, is hardly an active organ. Yet laymen and the lay press have done their part in creating a public opinion. The trouble is, public opinion has no knowledge of the real issue, since the technical data which give the real facts of housing conditions, where they exist at all, exist only in fragments which are not readily available to the public. A general technical survey has not yet been made. This omission it is our object to rectify. We hope to continue our investigations in succeeding issues, with the aim of compiling, eventually, something like a national survey of housing conditions.

It is an ambitious project from which prudence shrinks. It involves a formula and some bold assumptions. It involves a formidable amount of research. But the need is obvious. To paraphrase Trelawny, on the North-West Passage: it might be done, and an architectural paper should do it. We therefore ask for what goodwill is available, and plead that at least we are trying to live up to a pious New Year resolution made in the issue on National Planning.

What, then, is *slum?* The question is far from rhetorical, as the reply of the City Clerk of Cardiff, to enquiries made on behalf of this JOURNAL, clearly shows: "There are no slums in Cardiff." Coming from so authoritative a source, this statement will, no doubt, agreeably surprise the Prince of Wales. If we understand slum to mean simply an area officially scheduled for clearance by a Medical Officer of Health, then there are only a few acres of slum in England. If, on the other hand, we feel that the M.O.H. is an unduly optimistic creature, another standard will have to be chosen than the official one.

Slum is manufactured in great quantities from the raw materials of bad housing and overcrowding. Overcrowding can be measured statistically, bad housing cannot. Hence, in this survey, we use overcrowding as the yardstick by which to measure slum. At the same time provision for bad housing is made in the formula explained by Mr. Massey on page 818. The use of this formula makes comparison possible between town and town. It fills the gap where information is missing. Where information is available the formula is superseded; by its use something in the nature of a bird's-eye view can be obtained.

The next question is, what is overcrowding? Again there are various standards and again it is a matter of choice. We have chosen our standard and described it on pages 816–817.

Conceivably some may object that to allow four rooms to six people is unnecessarily generous, even though it means one member of the family sleeping in the parlour. In our view "housing" starts with housing, not with rat-holes. It starts *after* the demand for houses made in the Summary on pages 842–844 is satisfied—*after* every family has got a house*—*after* one room has been provided for every one-and-a-half persons. The one-and-a-half-to-a-room standard is, in fact, the *lowest possible standard*. We can talk about housing when we start to improve on that. Today it is a standard of perfection below which live over a million of the four million odd persons dealt with in the survey presented in this issue.

This survey will, we hope, serve at least one useful end. It will show that, widespread as the manufacture of slum is, its extermination presents no such insuperable problem as timid Governments and authorities are inclined to fear—except in the case of Glasgow, where the conditions are fantastic. Housing and slum clearance are, of course, complementary.

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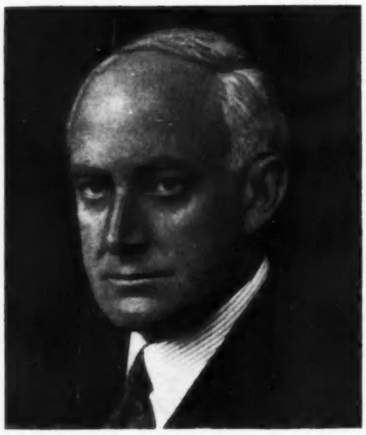
* See Definitions, page 814.

The solution depends on initiative and determination rather than on the power to perform miracles. By September the Government's ambitious Five-Year Slum Clearance Plan will be hatched, and we shall know what the local authorities mean to do, and how far the Ministry of Health means to support them.

Whatever comes of this and of the Building Society compromise, one thing is certain. Ultimately the responsibility for diagnosing the real housing needs of the country, and prescribing treatment, must lie with the architectural profession. And to the architectural profession, as Mr. Maxwell Fry indicates, in the last article in this issue, will come, at the appointed time, the opportunity for action.



The Rt. Hon. Sir E. Hilton Young, M.P., who, as Minister of Health, promulgated the Government's Five-Year Plan for the clearance of the slums.

NOTES & TOPICS

THE ENGLISHMAN'S MODERN HOME

THE Exhibition of British Industrial Art in Relation to the Home, at Dorland Hall, has brought into focus all the ideas and theories and gallant individual experiments created since the war in the name of modern design. There has been so much *talk* about design, seasoned with almost theological ardours or critical intolerance, that one felt that something might some day emerge.

*

A little bit of something for everybody has emerged. Expensive glories in glass for stunt-loving millionaires; interiors which display a stimulating concurrence of unusual materials and of familiar materials unusually treated; and compressed functionalism, intended to make the Englishman adopt beautifully tidy cells as his castle.

*

What this exhibition does prove is that we have got some ideas of our own, and that we aren't merely editing Continental notions, and thickening them up to square with our national love of comfort.

*

I don't think the art of display has ever touched the standard this show reaches. The illumination and arrangement of the different sections are in themselves masterly.

*

Yes, this " dear, dear land," for all its slums, is beginning to stand on its own feet in design (though, of course, these exhibits represent exceptions as yet to the rule of industrial production), and credit for helping to lug industry out of its nap in a traditional arm-chair must be given to the activating designers of the show: Messrs. Oliver Hill, Oswald Milne, Serge Chermayeff, Raymond McGrath and Wells Coates.

*

But, oh, those standard lights in the entrance hall! Who on earth was responsible for them?

*

ADVERTISING THE WORLD ECONOMIC CONFERENCE

There is a World Economic Conference on in London; but official attempts to inform London of the great honour that has been done to it are confined to the A.A. notices to direct traffic: " To the Geological Museum."

*

A NEW METHOD OF HOUSEBREAKING

The Evening Standard was sympathizing last week with the village of Markyate, Herts., which has been bombarded with lorries. Markyate is a bottle-neck for heavy traffic, and the sides of the neck are getting damaged. At least twenty houses and shops are reported as bearing marks caused by lorries hitting them.

*

As Messrs. Maxwell Fry and John Gloag said in the tenth broadcast discussion in the " Design in Modern Life " series on town-planning, we are the great unplanned. The Markyate incident is only one of many hints that the heady wine of the scientific commercial age is bad for the dear old bottles we will go on using.

*

'TIS POVERTY THAT MAKES A SLUM

To be killed by improved housing conditions is an ironic fate, but that it has happened we have the considered report of Dr. G. C. M. M'Gonigle, the M.O.H. of Stockton-on-Tees, as evidence.

*

Dr. M'Gonigle has had under close observation the two communities, one living in slum conditions and the other in a housing scheme, having been removed thither from the same slum.

*

Over a period of years he found that the slum death rate decreased slightly. The death rate of the transferred *increased by fifty per cent.* He also proved beyond a doubt that an increase of sickness and diseases leading to a high

A. J. SUPPLEMENTS

In view of the enlarged size of the present issue the usual loose supplements are unavoidably omitted; the publication of both series will be resumed next week.

death rate was due to lack of proper food consequent upon an increase in rent of 4s. 6d. per week.

*

No better example than this is needed to prove the case for a scientific attack on slum clearance building such as alone will suffice to lower costs and enable flats to be let at rentals fit for those people condemned to live so perilously near the poverty line.

*

A LONG-TERM VIEW OF HOUSING

Nothing pleased me more than to hear, at the meeting last week of the Mansion House Council on Health and Housing, Mr. H. R. Selley, M.P., confessing that the only permanent method of clearing the slums was to build houses and block dwellings in a large way by means of town planning, building to plan, whether or not the land used could be considered slum property or not.

*

He gave it as a pious hope for a distant future ; and *The Times* did not report this singular utterance, the only *really* constructive contribution in an hour of good speeches.

*

In sober truth, legislation for slum clearance is a one-sided affair that sooner or later *must* be amended if the Five-Year Plan is not to turn into a complete farce that will leave us with a disjointed hotch-potch of expensive dwellings scattered in holes and corners.

*

Mr. Selley is Chairman of the L.C.C. Housing Committee. I wish he could convert that body to a long-term view of their planning responsibilities.

*

THE PLAN OF THE STEELWORK ASSOCIATION

The British Steelwork Association plan, or partial plan, for the rebuilding of London should be looked at very carefully. In essence it forms a sort of negotiating formula for the introduction of higher buildings on a system of give and take.

*

First, it assumes with some logic that the present eighty-foot height restrictions represent a volume control over building, and that, with larger units of planning, the needs of building would be better served by central towers and an increase in height, rather after the New York model. The Underground Building is cited.

*

But, under cover of this, they proceed to put up the general cornice level and very considerably increase the total volume of building, and it is here that I grow nervous of too great a stress upon height, and not enough upon an increase in site areas and a widening in road widths.

*

Frankly, I would press first for street replanning, before I introduced the difficulties of skyscrapers and inflated land values, for, after all, the Underground Building is the result of a bad site, and assumes the form it does to some extent because it grows from an enclosed pit of buildings rising from narrow and badly-planned streets.

*

BUILDING NEW ABOVE THE OLD

When reinforced concrete engineers get ideas they sometimes do things. One of them, at least, is interested in slum clearance. He tells me of a scheme which, though applicable in only isolated cases, may be the deciding factor where it is impossible to disturb tenants, and so clear a site for re-building.

*

In such a case, and where the site is favourable, he suggests the erection of a frame, with piers in back and front yards, and any other available spaces, to carry second, third and fourth floors, which may be roofed, walled, and completed above the heads of those who continue to live sheltered, though a little inconvenienced, in the old houses.

*

When the upper floors are complete the tenants climb to their new abodes ; their old ones are demolished, and work on ground and first floors is finished.

*

THIS ENGLAND

What a spate of books on England there is just now ! They make me feel absolutely self-conscious, with their flow of sentimental balderdash about the English countryside, and the wayward English character.

*

Is this the publishers' attempt to squeeze the last profit out of the thing before it and the visiting foreigner disappears ? Or is it the genuine idiocy of the voluntarily blind, who will not see a bungalow for fear of shattering a day-dream ?

*

Never was such a time to make day-dreams come true. But architects require a strong dose of logic and economics to shake them out of *their* day-dream into a consciousness of the problems of their own times and *this England.*

ASTRAGAL

THE ARCHITECTS' DIARY

Thursday, June 22

R.I.B.A. CONFERENCE. At Cambridge. 10.30 a.m. : Inaugural Meeting at the Guildhall. Inaugural address by the President ; also short addresses by A. Beresford Pite, F.R.I.B.A., and Geoffrey Webb, M.A.,Cantab. 2.30 p.m. : Alternative Visits. 5.15 p.m. to 7.15 p.m. : Reception by the Rt. Worshipful the Vice-Chancellor of the University of Cambridge at the Fitzwilliam Museum. 10.30 *a.m.*

*ROYAL ACADEMY, Burlington House, Piccadilly, W.*1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

*L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS, Southampton Row, W.C.*1. Annual Exhibition. Until Saturday, June 24. 10 a.m. to 8 p.m. (Saturdays 10 a.m. to 12 noon). 10 *a.m.*

ROYAL SANITARY INSTITUTE. At Blackpool. 44th Congress. Until June 24.

INSTITUTION OF ELECTRICAL ENGINEERS. Conversazione to be held at the *Natural History Museum, Cromwell Road, S.W.* 8.30 *p.m.*

ROME SCHOLARSHIP IN ARCHITECTURE Exhibition (at the R.I.B.A.) of the designs submitted in the competition. Until July 1, 10 a.m. to 8 p.m. (Sats. 10 a.m. to 5 p.m.) 10 *a.m.*

Friday, June 23

R.I.B.A. CONFERENCE. At Cambridge. 9 a.m. Alternative whole day motor coach tours. 7 p.m. for 7.30. p.m. : Banquet in the Hall of Trinity College.

Saturday, June 24

Sunrise 4.43 a.m. Sunset 9.21 p.m.

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. All-day visit to St. Albans. Leader : F. J. Lander, A.R.I.B.A. Meet in front of the Town Hall at 10.45 a.m. 10.45 *a.m.*

Monday, June 26

R.I.B.A., 9 *Conduit Street, W* 1. Dance arranged by the Social Committee. From 9 p.m. to 1 a.m. Tickets 6s. 9 *p.m.*

LONDON SOCIETY. Visit to Croydon Air Port. Depart, by motor coach, from Lancaster House at 2 p.m. 3 *p.m.*

ARCHITECTURAL ASSOCIATION, 34 *Bedford Square, W.C.*1. Exhibition of recent work of the Egypt Exploration Society. Until July 15. 10 a.m. to 10 p.m. 10 *a.m.*

Wednesday, June 28

HOSPITAL CONGRESS. At Knocke-sur-Mer, Belgium. Until July 3.

SOCIETY OF CHEMICAL INDUSTRY. At the Science Museum, South Kensington, S.W. "Plastics in the Electrical Industry." By Lt.-Col. K. G. Maxwell. 4.30 *p.m.*

NEWS

●

POINTS FROM THIS ISSUE

Ultimately, the responsibility for diagnosing the real housing needs of the country, and prescribing treatment, must lie with the architectural profession *806*

Architects to whom credit must be given for helping to lug industry out of its nap in a traditional armchair *806*

A plea for higher buildings in London *808*

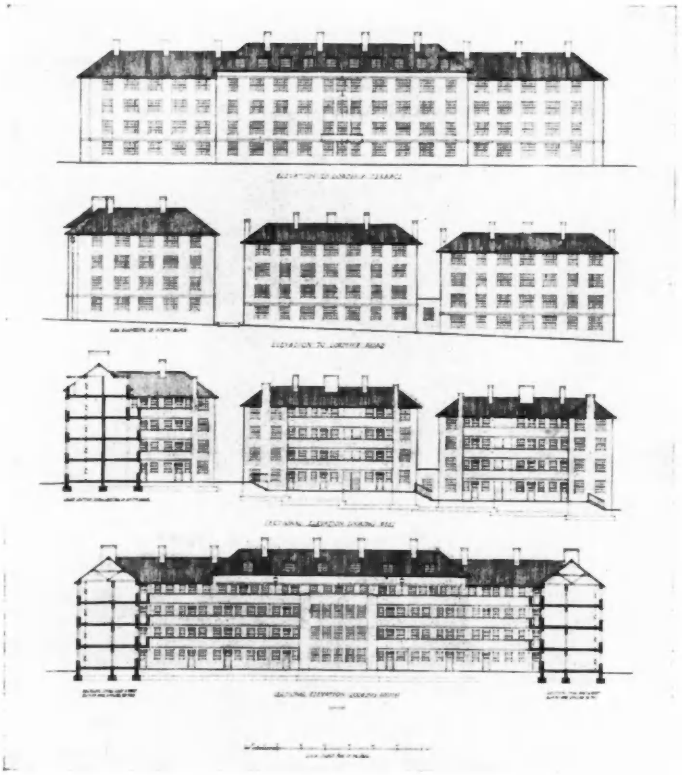
A competition for five different types of houses *812*

An opportunity for the exercise of "charity" in its true sense...... *813*

" . . . . constitutes one of the major horrors of slum life." *826*

●

COMPETITION FOR



INDUSTRIAL ART EXHIBITION

The Exhibition of Industrial Art in Relation to the Home was opened by H.R.H. Prince George at Dorland House on Tuesday afternoon. The Exhibition will remain open until July 20.

SOUTH AFRICA HOUSE

Today, June 22, H.M. the King is to officially open South Africa House, Trafalgar Square, W.C., designed by Sir Herbert Baker, R.A.

HOUSING EXHIBITION AT THE BUILDING CENTRE

Last Thursday an Exhibition of Housing was opened at the Building Centre. A typical slum living and sleeping room is exhibited in the Bond Street window, and through vivid statistical diagrams showing unemployment figures, overcrowding percentages, etc., one passes to the first floor. Here a series of small rooms are furnished with simple, well-designed fittings and furniture, and the price of each article is clearly marked on it. It is intended that this exhibition, and the Building Centre Cottages, which are now on view in the Strand, shall be complementary to each other.

HIGHER BUILDINGS

In a memorandum submitted to the Advisory Committee of the L.C.C., the British Steelwork Association, with the co-operation of Sir John Burnet, Tait and Lorne, has submitted a plea for more liberal site development in London. It is pointed out that "the restrictions on earning space of buildings are too apparent in London to require emphasis and are such that every cubic foot of space has to be squeezed into service, and buildings have to be driven three and four stories underground in order to secure usable and suitable accommodation on a given site. Not only is subterranean construction of this sort unduly expensive, but it brings about greater difficulties in fire-protection and much less hygienic conditions in respect to light and air than would result from a relaxation in respect of height.

"An economic urge is necessary for the re-planning of London. A vast expenditure of capital is necessary if the Metropolis is to be rebuilt on the lines of wider arteries and open spaces, with more efficient working accommodation. But this capital will only be attracted to new building enterprise if the economics of rebuilding are firmly established. Building regulations should, therefore, be framed to encourage the replacement of inefficient and out-of-date areas by modern constructions."

It is suggested (1) that "new buildings be allowed to go to a height of 85 feet on the building line, plus an extra height of 40 ft. set back within an angle of 75°." (2) "New buildings be set back at pavement level in order to provide a minimum of 30 ft. to the centre of the street. The area given up to the public multiplied by a height of 125 ft. plus one-half of this volume may be added to the building above the 125-ft. level, provided the added height is set back within the 75° angle. This revision would obtain a minimum width of street of 60 ft., and thereby help to solve one of the most urgent problems, that of street traffic congestion due to narrow streets. The added height and cube to the buildings would be an inducement to rebuild on more modern and economic lines."

WALCOT EXHIBITION

On Tuesday last, Sir Raymond Unwin, P.R.I.B.A., opened an exhibition of architectural drawings, etchings, watercolours, etc., by Mr. William Walcot, F.R.I.B.A., at 5, Grafton Street, Old Bond Street, W.1. The exhibition will be open daily from 2 to 6 p.m., until July 20.

SLADE PROFESSORSHIP AT OXFORD

The Board of Electors to the Slade Professorship at Oxford University have elected Mr. H. S. Goodhart-Rendel, F.R.I.B.A., as Slade Professor of Fine Art from October 3 next, for a period of three years.

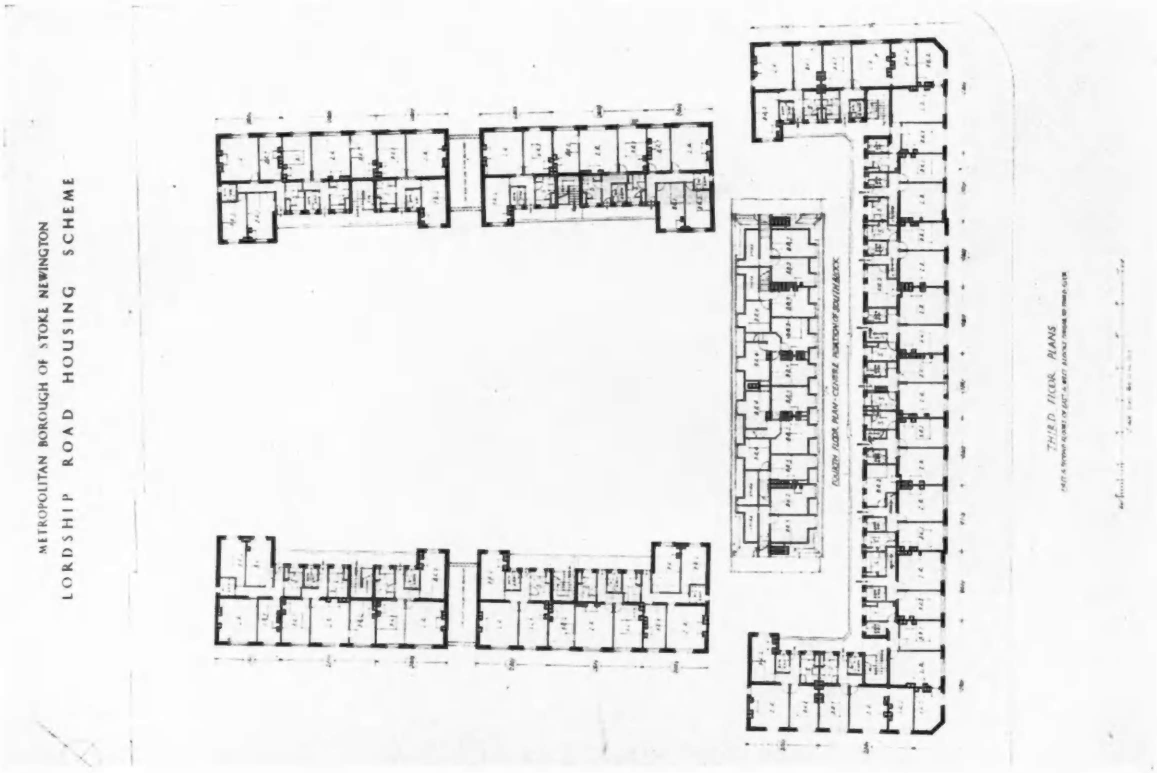
THE HOUSING PROBLEM

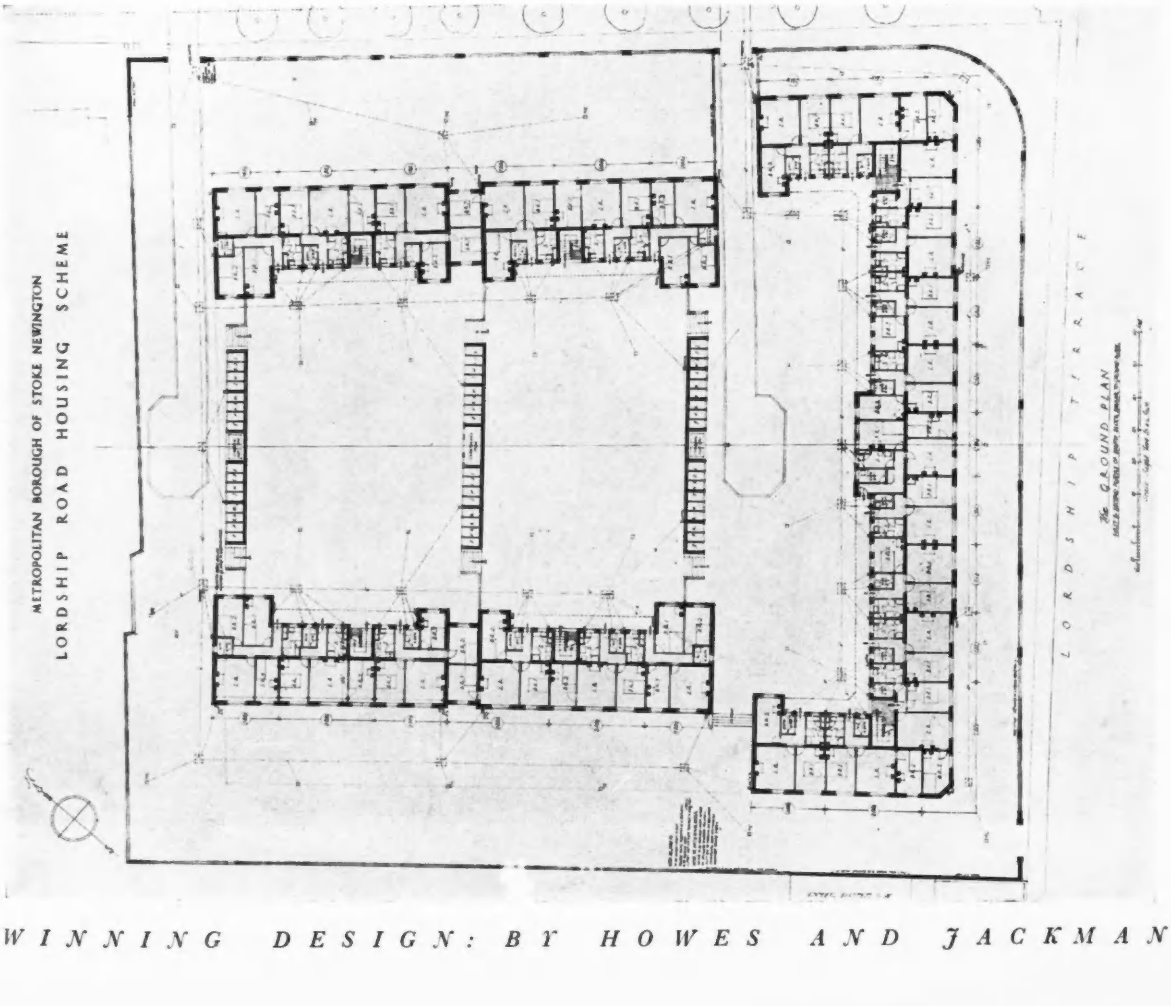
At a meeting held at the offices of the Chartered Surveyors' Institute it was agreed to form a Council for Research on Housing Construction, under the chairmanship of the Earl of Dudley, to undertake research in housing and to bring together industrial, professional and other interests for the study of this problem.

The following were elected as first members of the Council: Lord Melchett; Dr. W.

[*Continued on page* 812.

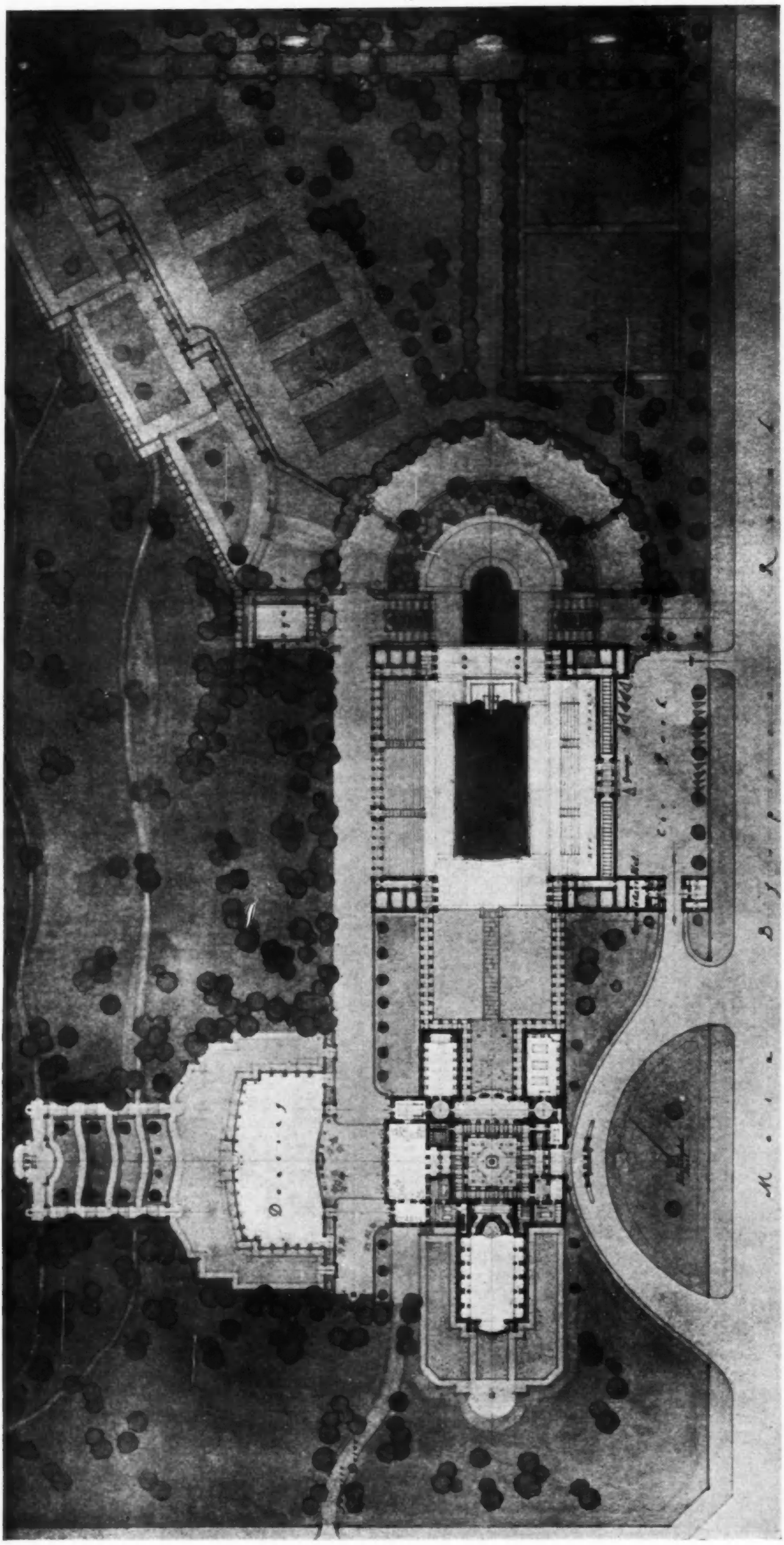
FLATS AT STOKE NEWINGTON

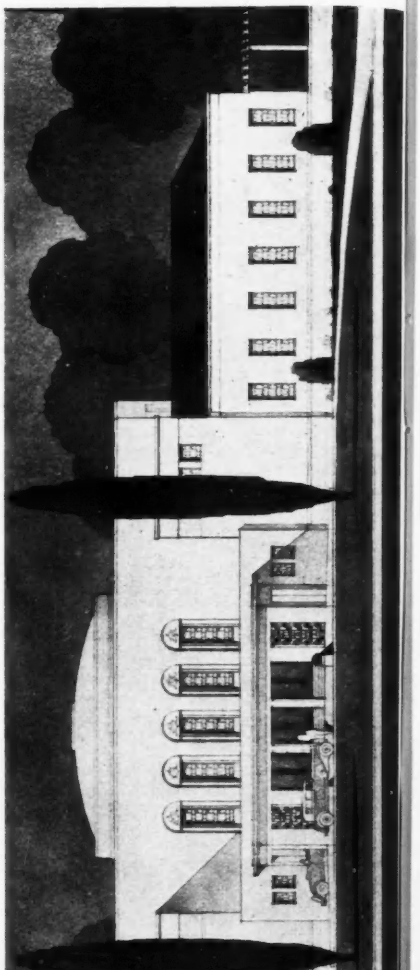

METROPOLITAN BOROUGH OF STOKE NEWINGTON
LORDSHIP ROAD HOUSING SCHEME
FOURTH FLOOR PLAN - CENTRE PORTION OF SOUTH BLOCK
THIRD FLOOR PLANS

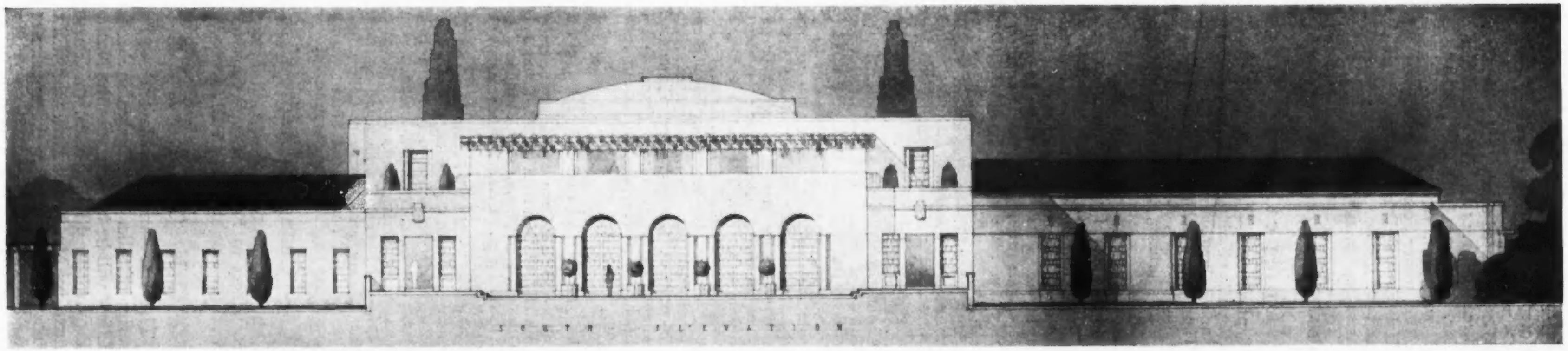

METROPOLITAN BOROUGH OF STOKE NEWINGTON
LORDSHIP ROAD HOUSING SCHEME
LORDSHIP TERRACE
The GROUND PLAN

WINNING DESIGN: BY HOWES AND JACKMAN

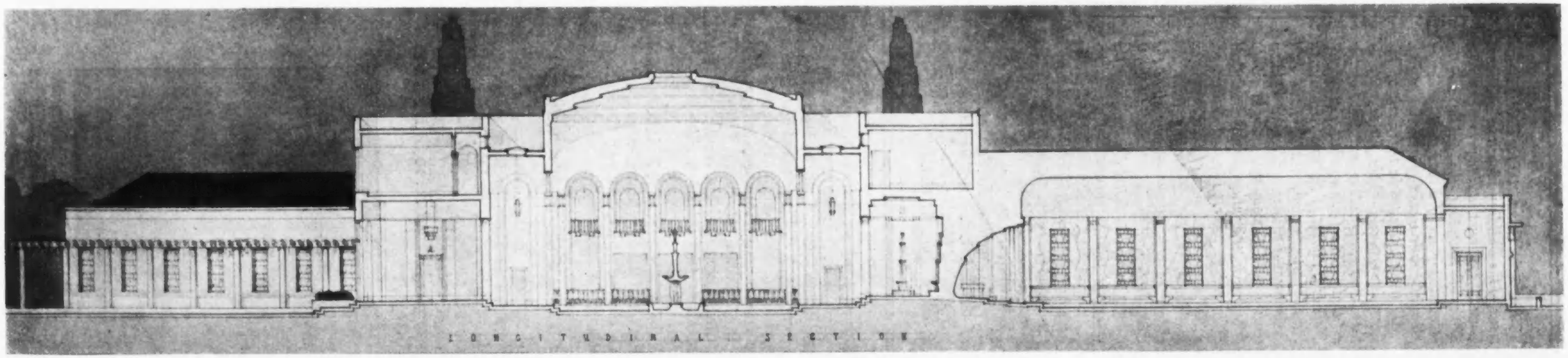
THE ROME SCHOLARSHIP: SUBJECT: A ROAD HOUSE



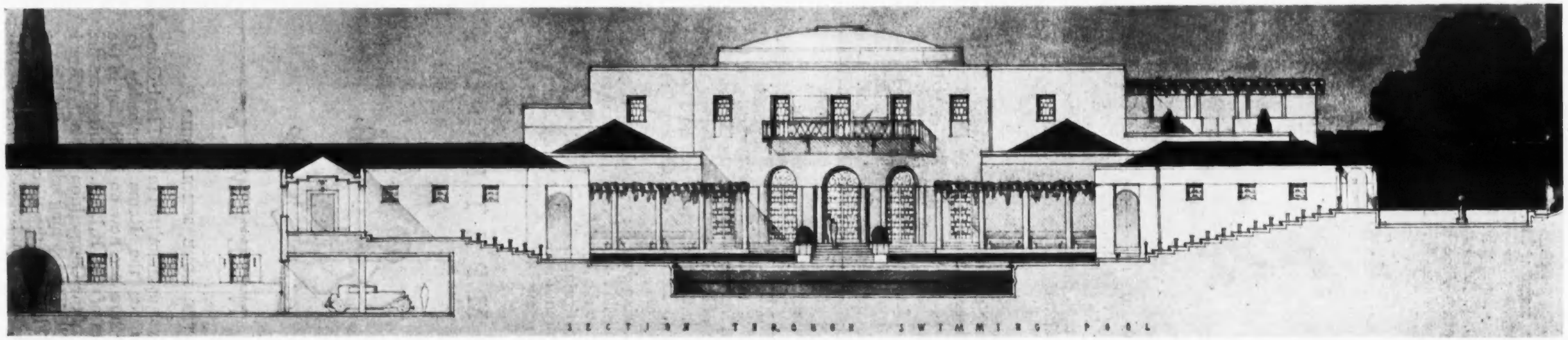




SOUTH ELEVATION



LONGITUDINAL SECTION



SECTION THROUGH SWIMMING POOL

[See note on page 812.

THE WINNING DESIGN : BY A. G. S. FIDLER (LIVERPOOL SCHOOL OF ARCHITECTURE)

H. Coates; Mr. E. J. George; Mr. M. Claude Leigh; Mr. Francis Lorne; Sir John Mann; Sir William Ray; Mr. J. B. Stevenson, and Mr. Ben Walmsley.

Mr. C. J. Kavanagh (Sec. of the British Steelwork Association) was appointed Director of the activities of the Council.

R. I. B. A.

THE CONFERENCE

Today, at 10.30 a.m., the inaugural meeting of the R.I.B.A. Conference will be held in the Guildhall, Cambridge. Particulars of the other arrangements are given in the Architects' Diary on page 807.

A DANCE

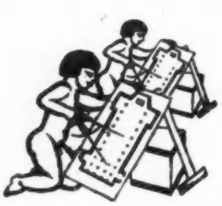
A dance arranged by the R.I.B.A. Social Committee will be held in the R.I.B.A. Galleries, 9, Conduit Street, W.1, on Monday next, June 26, from 9 p.m. to 1 a.m. Tickets, price 6s. each, can be obtained from the Secretary, the R.I.B.A., or through any member of the Institute. The price of the tickets includes light refreshments.

STATUTORY EXAMINATION

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Act, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 11, 12 and 13.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is September 20. Full particulars of the examinations and application forms can be obtained from the Secretary of the R.I.B.A.

COMPETITION



NEWS

THE ROME SCHOLARSHIP

The designs submitted in the Final Competition for the Rome Scholarship in Architecture are now on exhibition in the Galleries of the R.I.B.A. This year the subject of the Competition was a "A Road House." The winning scheme, by Mr. A. G. S. Fidler (of the Liverpool School of Architecture) is illustrated on pages 810-811.

> *The Special Committee for Public Relations of the Building Industries' National Council continues actively to pursue its work of educating the public on the economic virtues of a consistent policy of planned public works of national utility.*
>
> *All those interested in the work of the Committee should apply for a copy of the latest publication on this matter entitled "The Case against Economy." This is a reprint of the two Memoranda issued last autumn, which have had such great influence on public opinion with regard to economy, brought up to date and incorporating further statistical information. Mr. Howard Robertson, F.R.I.B.A., Chairman of the Committee, contributes a preface dealing with the change of opinion on economy since the Committee commenced its "Build Now" campaign. The latest figures show the extent to which the work of the Committee on behalf of the Building Industry have been successful. This work merits the wholehearted support of every member of the Industry.*
>
> *Subscriptions to the Fund of the Special Committee for Public Relations of the B.I.N.C. should be addressed to Mr. Oswald Healing, F.S.I., at 5, Duke Street, Adelphi, W.C.2.*

Other competitors were as follows: Messrs. D. McIntyre, (Armstrong College, Newcastle-upon-Tyne), J. R. Baxter, (Liverpool University), J. A. Pinckheard (Architectural Association, London), A. Reiach (School of Architecture, Edinburgh College of Art), P. B. Dunham (London University), E. Farrar (Liverpool University), P. H. D. Ronaldson (School of Architecture, Edinburgh College of Art), G. H. Lawrence (School of Architecture, Edinburgh College of Art), T. J. Cahill (Manchester University), J. C. Clavering (Armstrong College, Newcastle-upon-Tyne).

FLATS FOR STOKE NEWINGTON

Sir Robert Tasker, the assessor of the limited competition for flats to be erected in Lordship Road, Stoke Newington, has made his award as follows:—

Design placed first (£250): Messrs. Howes and Jackman, of 10 Gray's Inn Place, W.C.1.

A. G. S. Fidler, the winner of the Rome Scholarship in Architecture.

Design placed second (£100): Mr. E. M. Joseph, A.R.I.B.A., of 2 Paul's Bakehouse Court, E.C.4.

Design placed third (£50): Mr. Granville Streatfeild, F.R.I.B.A. (in conjunction with Mr. Matthew J. Dawson, F.R.I.B.A.), 13 New Square, W.C.

The other competitors were Messrs. Hobden and Porri, F.R.I.B.A.; E. C. P. and H. Mawson, FF.R.I.B.A.; and W. R. Davidge, F.R.I.B.A.

The winning design is illustrated on pages 808-809.

Competitions Open

September 1.—Sending-in Day. Proposed Hospital at Surbiton. Assessor: C. E. Elcock, F.R.I.B.A. Premiums: £120, £75, £50 and £25. The conditions, obtainable from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton, were reviewed in *A.J.* for May 24.

September 1.—Sending-in Day. Proposed bathing pool for the Llandudno U.D.C. Open to architects and civil engineers. Three sites are under consideration and three premiums of 50 guineas are offered for the best design for each site. Site plan and particulars obtainable from W. T. Ward, Engineer and Surveyor, Town Hall, Llandudno. (Deposit, 10s. 6d.)

September 11.—Sending-in Day. The Directors of Gidea Park, Ltd., invite designs for five different types of houses (ranging from £400 to £900). Open to members or students of the R.I.B.A. Assessors: Prof. S. D. Adshead, F.R.I.B.A., A. E. Beresford, F.R.I.B.A., Ald. Ewart G. Culpin, F.R.I.B.A., E. Maxwell Fry, A.R.I.B.A., Howard Robertson, F.R.I.B.A., and W. Harding Thompson, F.R.I.B.A. In addition to being paid a fee according to the scale of charges of the R.I.B.A., the authors of the first five selected designs in each class will be paid a premium of £10. Particulars obtainable from Gidea Park, Ltd., The Estate Office, Hare Street, Gidea Park, Romford, Essex.

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Assessor: C. Cowles-Voysey, F.R.I.B.A. Premiums: £350, £250 and £150. Full conditions, etc., were published in our issue for May 17.

Competitions Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor: H. S. Goodhart-Rendel, F.R.I.B.A. Premiums: £150, £100 and £50. Conditions have not yet been drawn up.

Proposed Municipal Sanatorium and Craymount Children's Hospital, Belfast. Limited to architects practising in Northern Ireland. Assessor: R. S. Wilshere, A.R.I.B.A. Conditions are now being drawn up by the assessor.

Proposed Municipal Offices and Extension to the Library and Electricity Offices for the Metropolitan Borough of Stoke Newington. Conditions have not yet been drawn up.

Change of Address

Mr. W. H. Ansell, F.R.I.B.A., has removed his offices to No. 12, Gray's Inn Square, W.C.1. Telephone No.: Chancery 8169.

ON THE AIR

The last—and the eleventh—of the series of talks on "Design in Modern Life" will be broadcast in the National Programme at 8.30 p.m. on Tuesday next, by Mr. Frank Pick, who will discuss "the Meaning and Importance of Design."

FOREWORD

[BY THE EDITOR]

In the pages which follow an attempt is made to carry out a survey of working-class living conditions in the six largest towns of Great Britain, London excluded.

The investigations, which have been specially carried out for THE ARCHITECTS' JOURNAL by Mr. Philip H. Massey, are related in every case, except that of Glasgow, to the standard which is described and illustrated on pages 816-817.

The use of a single standard makes it possible for the reader to compare one city with another and to arrive at a general conception (1) of overcrowding, (2) of housing needs. No figures as to the number of houses that ought to be pulled down are available, since officially no area is supposed to be unfit to live in unless scheduled for clearance by a medical officer of health. A summary of results for the six towns, with final conclusions, is given on pages 842-844.

The illustrations and quotations which accompany this survey are by way of being merely a commentary on the text. It is not the aim of this JOURNAL to emphasize the horrors of slum life. Anti-slum propaganda has been, and is being, carried on very adequately in the lay press. Our object is to give, as far as the available information permits, the facts and figures from which can be made a proper diagnosis—one might almost say a proper *architectural* diagnosis—of the slum problem. At the same time figures need a context, and the illustrations seek to ensure that they shall be read in the right atmosphere.

To talk, for instance, of the one-and-a-half-to-a-room standard means little unless one realizes that this, for a normal family, involves a bed in the parlour. For a normal family? No; for a luxuriously accommodated family. Overcrowding in Great Britain is such that this standard has to be taken as an ideal. The figures of new houses required which we give on pages 842-844 show merely the amount of housing necessary to enable people to live round about this standard. The real housing problem—how to provide living conditions at less than one-and-a-half—*starts when all these houses have been built.*

We propose, in succeeding issues, to continue our survey of the larger towns. The slum problem and the overcrowding or housing problem are treated officially as though they were separate questions. They are not. It is true that as long as slum buildings stand, so long will people live in them, and so long will slums go on. But the slum will not disappear when every slum building is in the hands of the house-breaker. Overcrowding automatically produces slum conditions, and until the increase in the number of houses overtakes the increase in the number of families, new slums will spring up as fast as the old ones are pulled down.

[THE ARCHBISHOPS TO THE CHURCH]

Before the war the housing problem was acute; but the cessation of building during the four years of the war, and the difficulties attending building enterprise after it, resulted in a disastrous shortage of houses and a consequent overcrowding calamitous both in its intensity and in its extent.

Great efforts have been made by both municipal and private enterprise to overtake the lost ground. We have now reached a stage when, by the action of a united, vigilant, and decisive public opinion, it should be possible altogether to abolish bad and insanitary houses and that continuing blot on our national life which we call the slums.

With this great object in view the Minister of Health has issued a programme for the next five years. But it will not and cannot be carried through unless it is steadily and vigorously supported in every part of the country. We regard this situation as offering a direct challenge and call to the Church.

This year multitudes of Church people are celebrating with thankfulness the centenary of the Oxford Movement, one of whose main principles was the restoration of the corporate character and life of the Church. Where could we find, apart from worship itself, a better and clearer opportunity for the Church's corporate activity than in a campaign for the abolition of slums and for the decent housing of the people?

There is need not only of proper housing, but of this at rents which are within the means of those who have been or now are living in slums. Here is an opportunity for the exercise of that "charity" in its true sense, that love of our neighbours.

Bad housing and overcrowding are damaging to health of body and even more, perhaps, to health of mind and soul. We cannot and dare not as Christians acquiesce in the subjection of our fellow countrymen to conditions so injurious. A time has come when we can, if we will, remove this scandal from our social life.—THE ARCHBISHOPS OF CANTERBURY AND YORK. (May 16.)

SLUM

[BY PHILIP H. MASSEY]

B.Sc. (Econ.), F. R. Econ. S.

Author's Note.—Besides making my acknowledgments to the authors of the studies of the slum problem enumerated in the biography on page 843, I should like to place on record my appreciation of the kindness shown me by officials of the various City Councils in replying to my written enquiries, and by several experts who have spared me their valuable time and given me the benefit of their knowledge.—P.H.M.

DEFINITIONS

To avoid misapprehension of the terms used throughout the survey in the pages that follow, these definitions, used in the Census, are given :—

" *PRIVATE FAMILY.*—Any person or group of persons included in a separate return as being in separate occupation of any premises or part of premises is treated as a separate family for Census purposes, lodgers being so treated only when returned as boarding separately and not otherwise. Private families comprise all such families with the exception of those enumerated in (i) Institutions or (ii) business establishments or boarding-houses in which the number of resident trade assistants or resident boarders exceeds the number of members of the employer's or householder's family (including private domestic servants).

" *STRUCTURALLY SEPARATE DWELLINGS.*—A structurally separate dwelling has been defined for the Census as any room or set of rooms, intended or used for habitation, having separate access either to the street or to a common landing or staircase. Thus each flat in a block of flats is a separate unit ; a private house which has not been structurally subdivided is similarly a single unit, whether occupied by one family or by several families. But where a private house has been subdivided into maisonettes or portions, each having its front door opening on to the street or on to a common landing or staircase to which visitors have access, then each such portion is treated as a separate unit.

" *ROOMS.*—For the purposes of the Census, the rooms enumerated are the usual living rooms, including bedrooms and kitchens, but excluding sculleries, landings, lobbies, closets, bathrooms, or any warehouse, office, or shop rooms."

The term " structurally separate dwelling " is used in the Census to avoid the ambiguities of such words as " house " or " tenement."

" Tenement " is normally used for parts of a house inhabited by the working class, but is sometimes used (not here) to give the meaning of " dwelling."

The parts of this survey which are derived from the Census follow the use of the term " structurally separate dwelling "—in other parts, e.g., in all the conclusions, " house " is used. The expression " so many *houses* " wanted is not to be taken to exclude the idea of flats or tenements.

It is necessary in many cases to rely on the context, and there does not appear to be any place where ambiguity could be alleged. For example, where an enquiry " from house to house " is being described and a house is found containing three or four families, it may safely be assumed that " house " is being used in the everyday sense of the word.

—P.H.M.

INTRODUCTION

SCOPE AND METHOD OF ENQUIRIES

IT appears now to be fairly generally appreciated that the building of a million houses in this country since the war has scarcely touched the slum problem.

Recently there have been a large number of articles written, and speeches made, on the problem of the slums. No previous attempt appears to have been made to gather information and to present it in a comprehensive form.

The following survey seeks to discover the housing needs of the six greatest British cities. From the experience of these it should be practicable to assess the total number of houses which this country requires.

A mass of information has been gathered and worked up for the purpose of this enquiry. In view of the fact that this information had to be gathered from diverse sources, it was found quite impracticable to present the features of each town under similar heads. A selection of figures given in, or calculated from, the Census volumes is, however, quoted for each city, and this is used as a background. The picture of the city as a whole, its worst wards, the proportion overcrowded, etc., are presented in statistical terms, as briefly as possible.

The description of the slums of each city, and of rents paid, etc., follows. At the conclusion an attempt is made to calculate the housing needs on the basis of the information, both as to overcrowding and as to existence of unfit dwellings.

One thing which many people have not realized is that the problem of the slums is different in one city from another. Neither " wholesale clearance," nor " workers' flats," nor " reconditioning," nor any other generalization is applicable to every town. Nor, indeed, to all the slums in any one town.

This analysis of the great British cities is designed, among many other things, to emphasize that there is no uniformity between slums.

Where possible, lines of advance have been suggested. In the case of most of the cities there can be said to be some dominant characteristic which gives one, if not a positive answer to the question of how to solve the problem, at least an indication of the things that do *not* require doing or ought not to be done. Manchester and Birmingham have reconditioned and built houses on outlying estates. Their problem is one of rehousing in the central areas. The centre of Glasgow, quite definitely, demands the clearance of square miles rather than acres, and the provision of workers' flats. And so on.

But in general this enquiry has been confined to estimating, so far as possible, how many houses are wanted.

To do this it is necessary to decide how far down the scale of horror we are to go. Various Acts of Parliament exist under which houses can be dealt with, and one is thus presented with a series of definitions. The word " slum " does not occur.

The definition of a clearance area is given in the 1930 Act. In practice a slum is any dwelling which the Medical Officer of Health, acting within the law and the opinions of the Council on housing matters, manages to get certified as a slum.

This enquiry is intended to show total *housing needs*. It is, therefore, necessary to start with overcrowding. To use the overcrowding figures in order to arrive at a figure of housing needs it is necessary to establish a standard.

OVERCROWDING STANDARDS

A number of overcrowding standards exist :—

1. The Registrar General's—under which people living over 2 per room are overcrowded.* All rooms are counted except bathrooms, sculleries, etc.
2. The National Bedroom Standard —a 2-bedroom house to be regarded as providing accommodation for 4, 3 for 5, and 4 for 7.
3. The Sex Separation Standard regards a house as overcrowded if it does not afford sex separation in respect of all persons over 10, except for people living as man and wife.
4. The Manchester Standard requires bedroom accommodation for man and wife, and as necessitated by the Sex Separation Standard, and also prescribes a maximum of 2½ persons per bedroom, children under 10 counting as half.
5. The Merseyside Survey Standard —differing slightly from the Manchester—is explained in a footnote to the section on Liverpool.
6. Standards based on cubic space per person.

There are disadvantages attaching to all these standards. The Registrar General's is inadequate. A family of 4 adults—man and wife, grown-up son and daughter—inhabiting two rooms would not be deemed overcrowded. Presumably it is agreed that such a

OVERCROWDING

SOME TYPICAL EXAMPLES

" Flat " of four rooms over two shops ; one room is really a scullery. Rent 14s. Occupied by a husband who is blind, wife, daughters 20 and 17, sons 12, 8, 6, 4, 3, 1. There are two bedrooms (one with partition and no door), and a scullery containing coal, " bit bucket," etc., but also used for sleeping. The girl aged 17 has been certified as tuberculous, and should have a bedroom to herself. No water-tap in house, and all water has to be carried from the yard ; no sink and no wash-boiler.

Two-roomed house, one up and one down ; rent 6s. 2d. No water in house ; bugs and mice and at one time rats in bedrooms. Occupants : widow (husband died early this year in a Sanatorium, T.B.), boy, 10 ; girls 8 and 3. Elder girl away in Sanatorium, expected home shortly. All sleeping in one room. Boy threatened with T.B.

House : one boxroom up, and one room down ; rent 6s. 7d. ; 5 persons. The entire family sleep in one room, as the boxroom is unfit for habitation owing to crumbling walls and falling plaster. Rain penetrates bedroom roof and soaks beds in wet weather ; leaking lavatory roof. House overrun by mice and beetles.

Very old house, two up and two down ; rent 8s. 2d. ; eight persons. The entire family live in back-room kitchen. The whole house is dilapidated, and both walls and floors are bad. The lavatory door was off its hinges and leaning against yard wall. The house was literally " running alive with vermin." Occupants declare that they have to get up during the night and come downstairs to " shake " themselves, in order to get any sleep at all.

—*From* SURVEY UNDERTAKEN IN PART OF MANCHESTER BY ST. CHRYSOSTOM'S HOUSING SURVEY GROUP.

Husband, wife, adult son and daughter-in-law, nephews, ages 15, 14, 7 and 1 ; nieces, ages 12, 10 and 3, in a two-bedroomed house.

Mother, son-in-law, adult daughter and son, grandsons aged 20, 14 and 8 ; grand-daughters aged 7, 4 and 2, in a two-bedroomed house.

—*From* HOUSING IN HULME.

At No. 54, X—— Street, a man, wife and six children occupy one room.

—*From* SOCIAL STUDIES OF A MANCHESTER CITY WARD.

Coal carter (49) with wife and five children, daughter of 9 and four sons (13, 8, 5 and 1), two bedrooms. Rent 8s. 1d. Parlour used as general shop by wife, who also sells vegetables ; cellar-kitchen let at 2s. 6d. as hairdressing saloon.

Marine fireman (58) with wife and two sons (20 and 13), one bedroom (which is also used as a living room). Rent 7s. 6d.

—*From* HOUSING CONDITIONS IN LIVERPOOL.

Four families in house . . . (b) Father, mother and six children in two upstairs rooms. Rent 7s. 6d. All sleep in one room when it rains. Other room lets in rain.

Six families in house.—(a) Family of five on ground floor. One room. Rent 4s. Rats as big as kittens reported ?

—*From* HOUSING PROBLEMS IN LIVERPOOL.

Family of six, consisting of a mother, two adult sons and three adult daughters. These are living in a house with two bedrooms, a parlour and a living-room. The parlour has been let to a family of seven lodgers ; a man, wife and five children under 10, two of whom sleep out. The rent of the whole house is 8s. 4d. and the parlour is sub-let for 6s.

Two families living in same house using same living-room. 1. Family of four, consisting of husband, wife and two adult daughters sleeping in one bedroom. 2. Family of nine, consisting of husband, wife, one adult son, one adult daughter and five children sleeping in two bedrooms. The house has a living-room, parlour and three bedrooms. Rent 8s.

—*From* A REPORT ON THE HOUSING PROBLEM IN SHEFFIELD.

In the attic (second floor) is a man, wife and four children, boys aged 4 and 14 months and girls aged 5 and 3. The room is large, but the ceiling is low ; the roof is leaking, and the plaster is bulging. The walls are damp, and have been papered by the tenant. When the visit was made the floor boards were defective in places, and gave way as they were trodden on . . . The ground-floor back room is rented by a man, his wife and two children, a boy 3 years old and a girl 13 months. The room opens directly into the wash-house. The walls are appallingly damp, partly due to the vicinity of the wash-house, and also because a length of rain water pipe on the outside wall has broken off, so that the water is soaking into the room at the head of the bed. The tenant complains of snails, black beetles and mice.

—*From* FIVE HUNDRED HOUSES IN BIRMINGHAM.

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* Practically all the authorities define the Registrar General's Standard wrongly by saying that children under 10 count as halves. They do not. (See County Volumes of the Census of England and Wales, Table 11.) The National Housing and Town Planning Council have published writings in which this mistake is made.

> This nation cannot afford, first from an economic point of view, the perpetuation of the slums. Nor can the nation afford the moral and mental degradation which slum conditions create in those who inhabit them. Let public opinion awaken. Great tasks require great energy, vision and determination. Let us put forward a great national effort, irrespective of party or of politics. Every generation has a dominating social task and so let our age, our generation, be remembered as the one in which we swept away this blot that disgraces our national life.
>
> THE PRINCE OF WALES

> Slum clearance is primarily the responsibility of the local authorities. . . . But very little progress was made in the matter before the War, and in spite of intensified efforts, which have included the grant of large subsidies, only just over 1,000 slum houses a year have been dealt with since the War. The slow rate of progress in the past has been due partly to imperfections in legislation, partly to technical difficulties such as the rehousing of the displaced population, and partly to the enormous cost involved. All these obstacles have been very greatly decreased of recent years. Building costs have fallen to a remarkable extent, and this fact—in conjunction with the subsidy of £15 a year for a house to accommodate five persons under the Act of 1930—means, according to the Minister of Health, that houses built under a slum-clearance scheme "can be let at rents well within the capacity of the poorest of the working classes."—THE TIMES

family should have three bedrooms. In practice they cannot have more than two, and they may prefer, or be practically forced, to use one only. The National Bedroom Standard is intended to be used in connection with *rehousing* schemes, and is inapplicable as a standard for measuring overcrowding in existent dwellings. The Sex Separation Standard obviously makes no provision for large families —it only insists on *sex separation*. When this standard is incorporated into the Manchester Standard one is arriving at something fairly satisfactory.

The disadvantages of the Manchester Standard are twofold. First, its applicability largely depends on the habits, or necessities, of the people. If a family has to, or chooses to, use all its rooms as bedrooms there is less chance of it being considered overcrowded on this standard. The second disadvantage attaching to the Manchester Standard, which also applies to that used in the Merseyside Survey and to other complex standards, is that it is impossible to apply them to an area unless a special investigation is made.

Over any area of magnitude the use of the Manchester Standard will give a far greater percentage of overcrowding than the Registrar General's, but there are cases which would be overcrowded under the latter but not the former. A man, wife and child under 10 in one room are not overcrowded on the Manchester Standard —they are on the Registrar General's. In general, however, the Manchester Standard gives a figure about three times as high as the Registrar General's.

METHOD USED FOR ESTIMATING HOUSING NEEDS

In the case of many of the towns, the information at present existing makes no pretence at completeness. London cannot say how many slums it has; Naturally, towns that cannot or will not clear their slums do not always schedule them, though some do.

We are thrown back on the overcrowding figures of the Census as a basis. From the County volumes of the Census we can obtain the number of persons in each town living over 3, 2, 1½ and 1 per room. (Children of all ages count as full persons.)

Age and sex composition of the family, and the size and character of rooms, play a great part in the decision which any individual would make as to the existence or absence of overcrowding. But the Census information cannot take us far in this direction, and it can only take us a little way on the road by means of laborious calculations. Since we should still have to make assumptions to go any further, it would not be profitable to go through such calculations.

The Census gives the number of persons living at various overcrowding levels. In order to see at a glance what sort of a family would be considered overcrowded on these standards, the following table has been prepared specially:

OVERCROWDING ON VARIOUS STANDARDS AVAILABLE FROM THE CENSUS

Persons.	Persons per Room. 1 room	2 rooms	3 rooms	4 rooms	5 rooms
1	1	½	⅓	¼	⅕
2	2	1	⅔	½	⅖
3	3	1½	1	¾	⅗
4	4	2	1⅓	1	⅘
5	5	2½	1⅔	1¼	1
6	6	3	2	1½	1⅕
7	7	3½	2⅓	1¾	1⅖
8	8	4	2⅔	2	1⅗
9	9	4½	3	2¼	1⅘
10	10	5	3⅓	2½	2
11	11	5½	3⅔	2¾	2⅕
12	12	6	4	3	2⅖
13	13	6½	4⅓	3¼	2⅗
14	14	7	4⅔	3½	2⅘
15	15	7½	5	3¾	3
16	16	8	5⅓	4	3⅕

Living over 1 per room

Living over 1½ per room

Living over 2 per room

Living over 3 per room

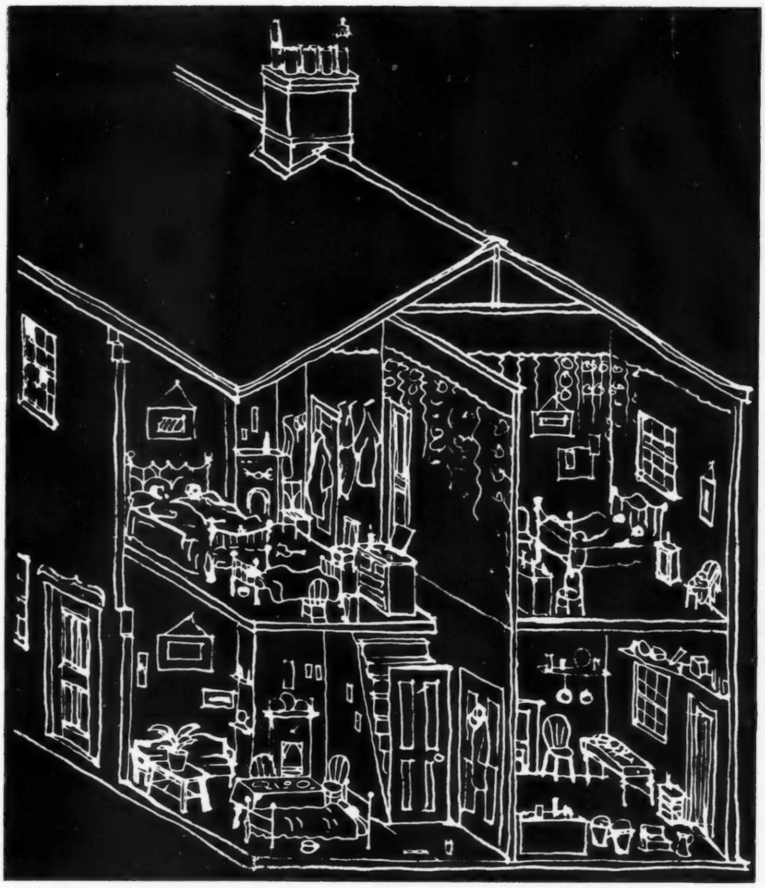
It has been decided to use a standard which considers as overcrowded all families living at over 1½ per room. It is a perfectly just criticism of the adoption of such a standard to say that it makes no provision for individual differences in the age and sex composition of families or in their use of living rooms as bedrooms. But it is necessary to use a standard which can be applied to every town. This one can.

Now let us examine the table above, in relation to the use of this standard:

1 person must have 1 room.

2 persons must have 2. If they are man and wife they will therefore have a bedroom and a living room. Otherwise they may have two bed-living

OUR STANDARD



One-and-a-half to a room. This is the standard to which we work in the Survey which follows of the six largest cities in Great Britain—excluding London, which will demand an issue to itself later on. As will be seen from the drawing, we have been generous. We have given the inhabitants of this house larger and higher rooms than such inhabitants usually get.

Even so, at one-and-a-half to a room—kitchens counting as rooms—there are six people in this house, divided for sleeping purposes thus: main bedroom, husband, wife and child; second bedroom, two girls; parlour, son.

Accommodation which necessitates five people sleeping in two small bedrooms, and one person in the parlour, is by every civilized standard odious. Nevertheless, today in England it is a standard of perfection. Of the four million odd persons dealt with in this issue 25 per cent. live in conditions of overcrowding beside which this is luxury.

If one adds the presence of vermin—the bug, the beetle, the rat—the all-pervasive slum smell, and the absence—in thousands of cases—of bathrooms and w.c.'s, and even of water taps, one arrives at some idea of the living conditions for a quarter of the population as dealt with here.

This state of affairs has been brought about in spite of the organized opposition of the architectural profession. In many places—London, for instance (the percentage of persons living more than three-to-a-room actually increased between 1921 and 1931)—or Lancashire (see chart, p. 830)—" new " overcrowding is easily beating " new " housing.

rooms. If one of the rooms is very much a kitchen, they will probably have to sleep in the same room, whatever their relationship may be. Our standard is not too generous.

3 persons, also, only have 2. *A fortiori*, we are not being too generous.

4 persons must have 3. Where a family of 4 consists of man and wife and two small children, three would be demanded on the Manchester Standard if one room were not used for sleeping. Where the children are older and of the same sex, again it would be reasonable to use two rooms as bedrooms. If the children were of opposite sexes, decency would require the use of 3 rooms. This would mean no room empty at night. Again, we are not too generous.

5 persons in 4 might be said to be comfortably as well as decently housed, but in many cases 4 rooms would really be necessary.

6 must be got into 4. Where the family is as big as 6, there should be two free rooms at night if possible. It will be hard to manage this in many cases.

On the whole it seems probable that in many ways the use of this standard would happen to accord with the results which would be arrived at by using the Manchester Standard—the most satisfactory of those in common use. Where their application differed, it is likely that the use of the 1½ standard would lead to fewer rooms being considered necessary. This contention would seem to be supported by statistics, so far as information can be obtained, for in the case of most of the cities considered the use of the 1½ standard involves us in classifying as overcrowded about 2½ times as many persons as would the Registrar General's Standard. The Manchester Standard gives a proportion of overcrowded about three times as high, except where a great proportion of families use all rooms for sleeping.

Overcrowding, therefore, is based on the principle that no family ought to live at more than 1½ per room. This standard is accepted as a *pis aller*, but has been shown to be reasonable. It must be emphasized that all persons are counted as 1 on our standard, while on the Manchester (bedroom) Standard the young children only count as halves.

The Census figures give overcrowding

at various levels. Use of the table, and a careful analysis of one particular town, show that it is safe to say that those living at *over* 3 are on average living at 4, those at 3 and over 2 at $2\frac{1}{2}$, and those at 2 and over $1\frac{1}{2}$ at $1\frac{3}{4}$.

The method of determining needs in each case may be represented thus :—

A people living at over 3 per room (assume average 4), have $\frac{1}{4}$ A rooms. They should have $\frac{2}{3}$ A, and therefore need another $\frac{5}{12}$ A to prevent overcrowding at over $1\frac{1}{2}$ per room.

B people living at 3 and over 2 (assume average $2\frac{1}{2}$), have $\frac{2}{5}$ B rooms. They should have $\frac{2}{3}$ B, and therefore need $\frac{4}{15}$ B.

C people living at 2 and over $1\frac{1}{2}$ (assume average $1\frac{3}{4}$), have $\frac{4}{7}$ C rooms. They should have $\frac{2}{3}$ C, and therefore need $\frac{2}{21}$ C.

No symbols are used in the actual determinations, so that the total of rooms required at each stage can be seen.

We thus get a figure for rooms which all the people living in the different classes should have in order that none shall live at over $1\frac{1}{2}$ per room, and a figure showing the deficiency.

The latter shows the number wanted if all the houses lived in were fit for habitation. The former would indicate the number required if every overcrowded house were unfit for habitation.

Experience shows that it is safe to take the geometric mean of these two as an indication of total needs. In the case of the majority of towns, the " maximum " figure is about four times the " minimum," so that this is the same as assuming that about as many rooms are required to replace insanitary dwellings as to prevent overcrowding at over $1\frac{1}{2}$. The use of this mathematical method is not chosen, but dictated by necessity, since many towns have no idea how many insanitary houses they have. The geometric mean formula is abandoned where exact information is available, or the result modified where the evidence appears adequate.

One further adjustment remains. All families cannot be housed at precisely $1\frac{1}{2}$ per room. Some of those that are put into the old houses which are too small for their present occupants, and some of those given new houses, will have to be housed at 1, $1\frac{1}{4}$ or $1\frac{1}{3}$, in order not to be housed at over $1\frac{1}{2}$. Only families consisting of multiples of three can be housed exactly at the standard. We push all our figures up 25% to allow for thi

L I V E R P O O L

City of Liverpool.

GENERAL POSITION

Area		24,795 acres	
Population	1921	805,046	
	1931	855,688	(100,000 unemployed)

Decennial increase 50,642

(1921 population of areas added in intercensal decade 2,106)

1931	Persons per acre		34.5
	Number of private families		201,426
	Population in private families		816,868
	Structurally separate dwellings occupied		173,938
	(vacant		2,110)
	Rooms occupied		879,710
	Persons per room		0.93
1921-31	Increase in occupied dwellings		25,669
	Increase in number of private families		29,397
	Families per occupied dwelling	1921	1.16
		1931	1.16
	Average size of private family	1921	4.46 persons
		1931	4.06 persons
	Average number of persons per room	1921	1.02
		1931	0.93
	Persons living more than 2 per room	1921	92,871 or 12.13%
		1931	89,336 or 10.94%
	(Families living more than 2 per room	1931	13,714 or 6.81%)

1931	Persons living over 3 per room	20,515
	3 and over 2	68,821
	Total over 2	89,336
	2 and over $1\frac{1}{2}$	126,629
	Total over $1\frac{1}{2}$	215,965
	$1\frac{1}{2}$ and over 1	180,864

268 families living 6 or more in 1 room
439 families living 8 or more in 2 rooms

The Wards

Number of wards in city	40
Number of wards containing over all average of over 100 persons per acre	8
Number of wards containing over all average of over 80 persons per acre	15
Number of wards containing over all average of over 1 person per room	15

Three Worst Wards on Persons Per Acre Standard

	Everton	Netherfield	St. Domingo
Acreage	210	129	179
Population 1921	35,893	32,835	30,520
,, 1931	32,602	29,257	27,182
Persons per acre ..	155·2	226·8	151·9
Private families ..	7,737	6,366	6,267
Population in private families ..	30,419	28,649	26,750
Structurally separate dwellings occupied ..	5,807	5,172	5,518
Rooms occupied ..	27,532	22,112	25,142
Persons per room..	1·10	1·30	1·06

Three Worst Wards on Persons Per Room Standard

	North Scotland	St. Anne's	South Scotland
Acreage	282	213	238
Population 1921	22,205	23,129	22,937
,, 1931	21,381	20,944	21,372
Persons per acre ..	75·8	98·3	89·8
Private families ..	4,756	4,906	4,844
Population in private families ..	21,060	18,834	21,042
Structurally separate dwellings occupied ..	3,718	3,068	3,896
Rooms occupied ..	14,378	12,441	13,662
Persons per room	1·46	1·51	1·54

Construction of Houses since the War

Houses erected 1919 to June 30, 1932	31,964
by private enterprise	7,586
by Council	24,378
(none sold or being sold)	
Houses demolished for specific slum clearance purposes over same period	1,586

The Courts and the Cellars

Liverpool slums are probably the worst in England, built when Liverpool was becoming one of the great ports of the world. The practice was to put up six or eight houses at a time round a court.

In 1841 half the population of Liverpool was living either in courts or cellars.

In 1854 the Corporation prohibited the building of more court houses. There were then 22,000. Their demolition has been proceeding ever since. By 1914 only 2,900 remained. There were in 1931 still 1,832 dwelling-houses in courts "found to be in a state so dangerous or injurious as to be unfit for human habitation." This, of course, had been implied 80 years before.

Most of these houses are in Exchange district.

In this district, the average number of families per house is 1·8, and the average number of persons per family 4·4.

There are, therefore, at least 13,000 people living in these court houses—regarded as unfit 80 years ago.

There are also 6,000 insanitary houses, most of which could be put in order by structural improvements.

There are 99 cellars still occupied as separate dwellings and 598 cellars used as kitchens.

Overcrowding

On the Survey* standard 11 per cent. of the families investigated in the whole city (a random sample) are overcrowded. Therefore about 16,000 families are overcrowded.

In St. Anne's Ward 37% are overcrowded.

Many of these overcrowded houses are not unfit—but movement is hampered by shortage of cheap houses and the Rent Restriction Acts.

Table showing Relation between Infantile Mortality, Death Rate and Overcrowding, 1931

The infantile mortality rate for the city increased from 81 in 1930 to 93 in 1931. (This increase is common to all the big Lancashire towns. Warrington shows an increase from 65 to 100, Oldham from 67 to 106, Bootle from 57 to 95. Those three are the worst.)

District		Percentage of working class families overcrowded	Infantile Mortality Rate	Death Rate
Exchange	..	29	117	20·0
Everton ..	..	15	113	17·1
Abercromby	..	13	133	18·7
Woolton ..	..	13	50	12·7
Toxteth ..	..	12	89	15·0
Edge Hill ..	..	11	84	14·8
Kirkdale ..	..	8	85	14·7
Wavertree	..	7	68	11·6
Walton ..	..	5	89	11·4
West Derby	..	3	76	11·4
Fazakerly ..	..	1	77	9·1
City ..	..	11	93	14·3

Slum Clearance — Particular Area

Slum clearance has had to wait for building.

But progress has been very slow, despite this, in great part owing to the obstructive attitude of property owners.

The Queen Anne Street area, one of the worst, contains about 434 houses, and a clearance order was made and confirmed in 1928. Legal action held this up until March, 1931—but even then the scarcity of land proved such a bar that by November only 85 tenements had been put up for rehousing purposes consequent on the contemplated clearance.

The Queen Anne Street area had, over the period 1921–1927, a death rate of 22·5, an infantile mortality rate of 158·9.

Detailed information is available in respect of six areas of bad housing, from a survey by the Liverpool University Settlement.

SIX BAD AREAS

Area in St. Anne's Ward, 343 houses

"Most of the houses are old and dilapidated. Defective roofs, cracking brickwork, decayed woodwork are common features . . . in some of the rooms the plaster is decayed and falls away at the slightest touch; the ceilings present a sodden appearance and in places are stuffed with rags. Such furniture as there is is often cumbersome and completely unfit for the small rooms. The bed usually dominates and the flock mattress serves as a general dumping ground by day, and a very uncomfortable resting place by night. In the absence of facilities for cleaning and airing, the beds are often harbouring places for dirt and vermin."

"The cellars are seldom used: in some cases they are boarded up, and in others they have been used for a long time for dumping refuse, with the result that they smell very bad."

Though they have to live near their work, "it seems that there is no real occupational necessity for the people to live in this area rather than in many other areas lying within a mile of the riverside."

Area in St. George's Ward, 98 houses (10 superior ones not included)

Information was obtained from 71 houses, holding 76 families.

"The courts are gloomy in the extreme; in places they are only 10 feet wide and the houses in them are of the back to back type, with 3 rooms on separate floors."

Similar information is available about four other areas. The information has been added to the above to get a general summary of these six bad areas.

Rents are generally 6s. 6d.–7s. 6d. for 3 or 4 rooms (much the same as in the first area).

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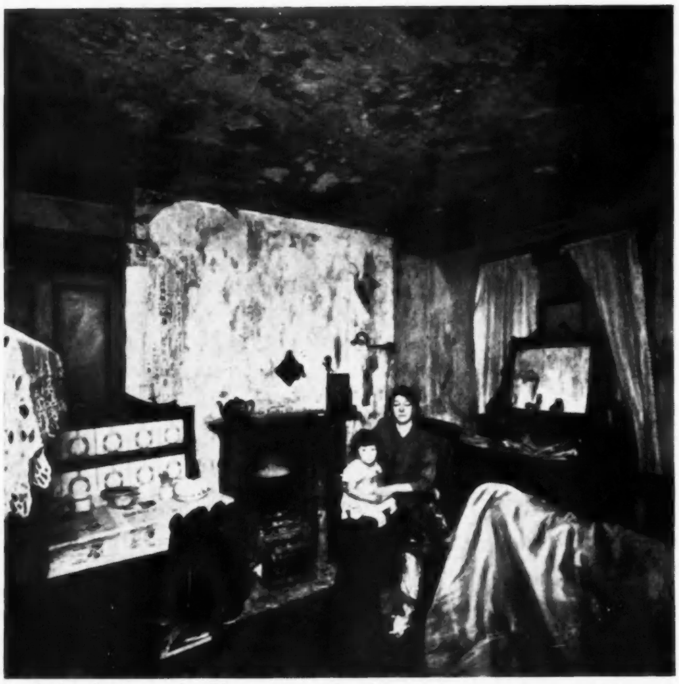
* The "Survey Standard" referred to is that which was used in connection with the recent survey of Merseyside. It was devised by Caradoc Jones, and takes into account living-room as well as sleeping-room accommodation. Counting children under 10 as half, the following standards are used:—2½ to have 1 room, 3-3½ to have 2, 4-5 to have 3, 5½-7½ to have 4, 8-10 to have 5, etc. The cases not deemed overcrowded under this test are subject to certain conditions as regards sex segregation, the age selected being 7 in place of the 10 of the Manchester Standard. Also it is assumed that families consisting of four adults, or the equivalent, require at least one sitting-room not used as a bedroom.

A ONE-ROOMED HOME FOR FIVE



A living-bedroom in Liverpool. In this single room a man, his wife and three children live and sleep. The plaster on the walls and ceiling is decayed and falls away at the slightest touch, and such furniture as there is is completely unfit for the room. In such rooms the bed, often harbouring vermin, usually dominates, and the flock mattress serves as a general dumping-ground by day and a very uncomfortable resting place by night.

Fewer 1- and 2-room dwellings exist, in 2 there are no 1-room dwellings, and in 1 no 2-room dwellings.

Summary of the Six Bad Areas

In the six areas 765 houses, containing 1,206 families (5,089 persons) were visited.

32%	of the families were overcrowded.
44%	of all persons were living in overcrowded families.
57%	of all children under 14 were living in overcrowded families.
53%	of all male workers were unemployed in the particular week taken (counting a docker unemployed if he worked less than 3 days).
87%	of the families lived in 4 rooms or less.
68%	paid under 7s. rent.
84%	per cent. of the families are willing to leave their houses for better accommodation.
38%	are prepared to leave the neighbourhood.

None of the houses had a garden or a bathroom.

"Sanitary arrangements were generally very unsatisfactory. In many cases they were revolting. Some of the houses were kept in a fair state of repair, but the majority were unfit for habitation. All the property is old and adequate repairs expensive."

"The desire to be near their work was the commonest reason . . ."

"... no general antipathy towards tenements was expressed . . ."

Special Summary of Rents paid in these Six areas

Rent Paid	Number of Families Living in 1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and over
Up to 2s. 11d. ..	32	1	2	0	0
3s. to 3s. 11d. ..	102	10	22	1	0
4s. to 4s. 11d. ..	127	25	16	5	1
5s. to 5s. 11d. ..	60	63	56	17	3
6s. to 6s. 11d. ..	37	35	125	82	16
7s. to 7s. 11d. ..	14	31	65	54	19
8s. to 8s. 11d. ..	1	13	22	12	10
9s. to 11s. 11d. ..	0	4	9	13	38
12s. to 15s. 11d.	0	0	0	0	37
16s. to 21s. ..	0	0	0	0	4

Analysis of Rents paid in these Six Areas

One Room

The largest class are those for which 4s. to 4s. 11d. is charged, numbering 127.

There are 134 cheaper than 4s., and 112 more than 4s. 11d.

It is probable that the median is about 4s. 5d.

Average higher, owing to dispersion in upper classes.

Two Rooms

Largest class 5s. to 5s. 11d., numbering 63.

36 below, 83 above.

Median about 5s. 9d.

Average rather higher.

Three Rooms

Largest class 6s. to 6s. 11d., numbering 125.

96 below, 96 above.

Median about 6s. 6d.

Average a little lower.

Four Rooms

Largest class 6s. to 6s. 11d., numbering 82.

23 below, 79 above.

Median about 6s. 9d.

Average much the same.

Five Rooms and Over

Largest class 9s. to 11s. 11d., numbering 38.

49 below, 41 above.

Median more difficult to determine, owing to wider limits of the rental margins in the largest class, and to dispersion below this class, and concentration above it—perhaps 10s. 9d. or even more, owing to the second of these factors.

Average considerably lower, owing to great dispersion below.

These figures show the impossibility of moving many of the inhabitants of these bad areas into Council houses or even tenements suitable to their needs, unless the rents of such municipal dwellings are to be greatly reduced.

The following sections summarize the work of the Corporation.

What is Being Done

Houses erected by Corporation since the war, or in course of erection at March 31, 1932.

Under 1919 Act	5,808
1923	1,035
1924	16,897
1930	203
	23,943

The Corporation also built 2,895 houses before the war.

Its tenants now number 118,000, i.e., 1 in 7 of the City's population.

About 15 per cent. of the houses are tenements in the centre of the City.

The great majority are in outlying estates.

The Council's big mistake has been to lease land on estates for shops, etc.

This great building performance has not been enough to satisfy demand.

The Council has built 72 per cent. of the total houses built since the war.

Council's Five-Year Programme under 1930 Act

10,000 houses.
3,000 tenement dwellings.

(This programme will be more than enough to relieve present shortage, accommodate natural increase and rehouse those displaced from the worst of the insanitary and overcrowded dwellings, *provided that:*

1. Emigration continues at its present level ;
2. "Filtering up" takes places to the requisite degree.

Rents of Corporation Buildings

Pre-war tenements (controlled) : 1 room, 2s. 8d. to 3s. 8½d. ; 2, 4s. 1½d. to 5s. 3½d. 3, 4s. 1½d. to 6s. 9d. ; 4, 7s. 1d. to 8s. 1½d.

Self-contained four-room cottages (controlled), 8s. 10d. to 13s. 7½d.

Tenements under 1923 Act : (bathroom and scullery each besides), 1 room, 3s. 3d. ; 2, 4s. 9d. to 5s. 3d. ; 3, 7s. 3d. to 8s. 3d. ; 4, 8s. 3d. to 9s. 3d.

Houses under 1919 Act :
Non-Parlour, 12s. to 13s. 10d.
Parlour, 16s. 1d. to 18s.
Terrace type, 14s. 6d.

Houses under 1924 Act :
Non-Parlour, 2 bed., 8s. 8d.
Non-Parlour, 3 bed., 9s. 4d. to 13s. 1d.
Non-Parlour, 4 bed., 11s. 6d.
Parlour, 3 bed., 16s. 1d. (special ones up to 19s. 10d.).
Flats, 2 bed., 15s.

Three-bedroom tenements are therefore 7s. 1d. upwards, inclusive.
Houses are therefore 8s. 8d. to £1 inclusive.

The average is about 14s.

Average for all working-class houses 9s. to 10s., and, for the slum areas considered, far lower. Moreover cost of living is higher in suburbs.

> Mother, father and six children (one a very young baby). Two-roomed dwelling. Wall in sitting-room crumbling. Impossible to paper it. The floor was a stone one, all broken and uneven. Bedroom in which the whole family slept was practically pitch dark even in the day time. Place was infested with rats and cockroaches. Family in bad health—suffered with chests. Two children had died of diphtheria. Mother thought rats brought sickness.
>
> A three-storied house, with one room on each floor and cellar used for storage, was occupied by father, mother and nine children under 18 years of age. Rent 5s. 2d. Tap in cellar. Cooking done on gas ring in a covered utensil in the cellar. The cover was needed to keep bits of falling plaster out of food. Cellar drain stopped up. Parlour could not be used because chimney was out of order and the room filled with smoke when a fire was lit. No dust-bin. Rubbish tipped on entry. Trough closet. Walls old and crumbling. Mother in ill-health. Seven slept in one room.
>
> —*From* HOUSING PROBLEMS IN LIVERPOOL

CONCLUSION

We have seen that there are 20,515 people in Liverpool living at over 3 per room, 68,821 living at 3 and over 2, and 126,629 living at 2 and over 1½. By assuming that these people are living on an average at 4, 2½ and 1¾ per room respectively (see Introduction), we can proceed to ascertain their wants, on a basis of giving them houses in which the overcrowding cannot exceed 1½ per room.

1. 20,515 people are living on an average of 4 per room, i.e., in about 5,000 rooms.
   They should have 13,500 rooms.
   If all their present rooms are fit, another 8,500 will suffice —if they are all unfit, 13,500 are needed.
2. 68,821 people are living on an average of 2½ per room, i.e., in about 27,500 rooms.
   They should have 46,000 rooms.
   If all their present rooms are fit, another 18,500 will suffice —if they are all unfit, 46,000 are needed.
3. 126,629 people are living on an average of 1¾ per room, i.e., in about 72,000 rooms.
   They should have 84,000 rooms.
   If all their present rooms are fit, another 12,000 will suffice —if they are all unfit, 84,000 will be needed.

The minimum requirements to abate the overcrowding would therefore be 39,000 rooms. And this figure, besides taking no account of houses or whole areas unfit for habitation, assumes implicitly that it is possible for each family to establish itself in a house at exactly 1½ per room. Manifestly this is impossible. To allow for the necessity of some people living rather less than 1½ per room (2 people would have to have 2, 4 people 3, 5 people 4, and so on), we may, conservatively, increase our minimum figure to 50,000 rooms.

Our maximum—necessary if all overcrowded houses were unfit—would be over 140,000 rooms. Allowing for the above factor, this might be increased to 175,000 at least.

Pure statistical deductions from Census figures therefore give us a minimum of 50,000 rooms to abate overcrowding, and a maximum of 175,000 required if all the overcrowded houses were unfit. In fact we know three things :—

1. All the overcrowded houses will not be unfit ;
2. Neither are they all fit ;
3. There are some not overcrowded houses which are quite definitely unfit.

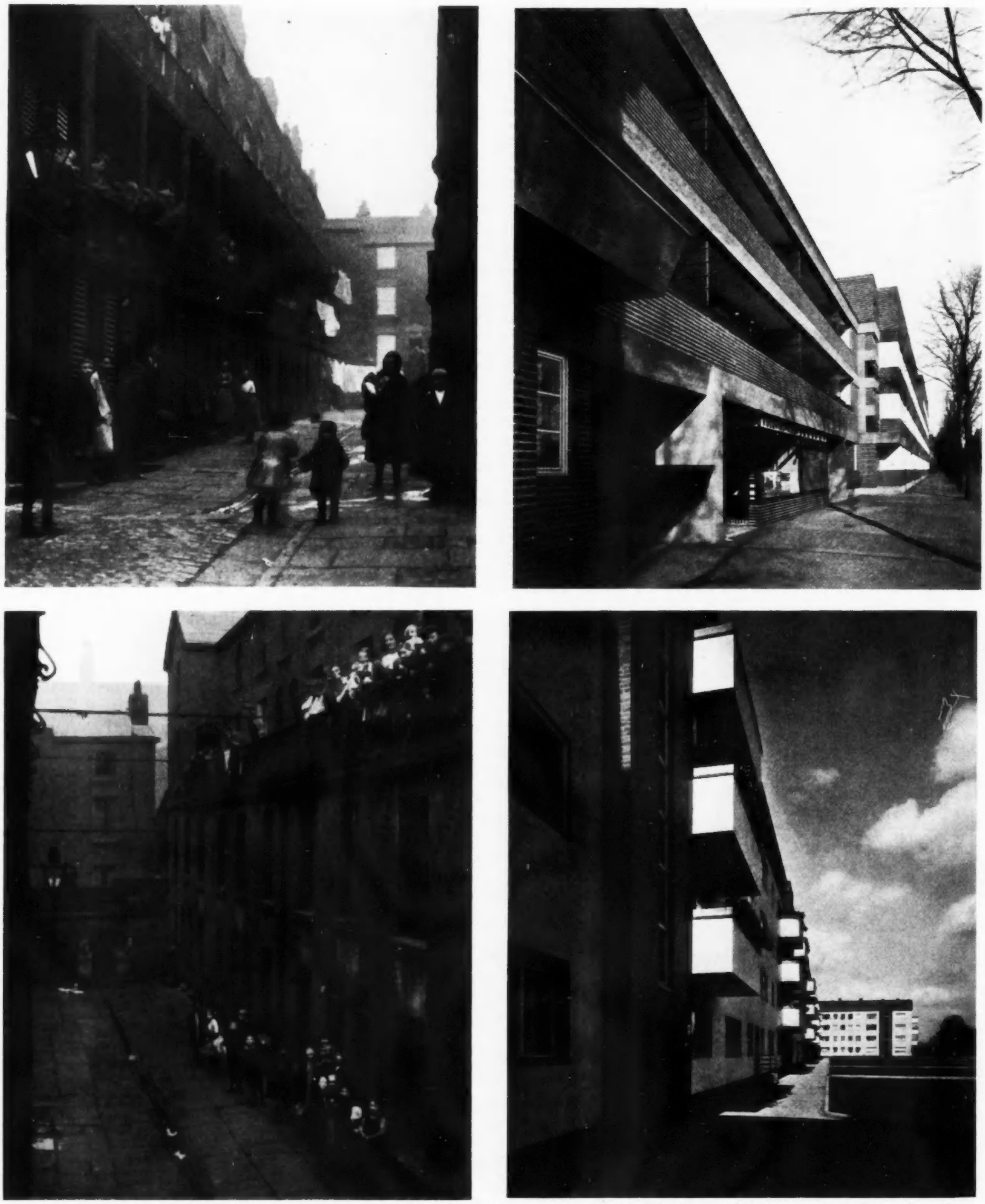
Further, the examination of the slums proper has shown that :—

1. 13,000 people at least live in the 1,800 odd court houses—all of which are definitely insanitary.
2. The provision of 13,000 houses by 1935 will be adequate for relieving the present shortage, accommodating the natural increase and rehousing those displaced from the worst of the insanitary areas, provided emigration continues as at present and the requisite filtering-up goes on.

The indications are that emigration will slow down, that filtering-up has gone nearly as far as it will (the correlation between overcrowding, poverty and foul conditions in the areas considered is very great). It would not be unjustifiable, on this basis, to hazard a figure of 20,000 houses, *of the right types, in the right place and very cheap* as the minimum requirements. Many of these would have to be fairly large—overcrowding being chiefly associated with large families. The average would be perhaps 4½ rooms. The figure of rooms required would then be 90,000. This figure roughly represents the geometric mean of our minimum and maximum above—and would seem to represent a rough working rule to be applied in most cases.

LIVERPOOL

BALCONIES NEAR—And Not Quite So Near—HEAVEN



The designers of these appalling Liverpool " dwellings " were at least humane enough to provide them with balconies, in default of anything green to look out upon, or any view except of your neighbour's involuntary disregard of most of what the sanctimoniously well-housed call " the decencies of life." A balcony can become a sort of make-believe piazza. Even so there is an overflow of social life into the guttered alley where water has to be drawn from a pump. To look from these crowded culs-de-sac to the immense German tenement-buildings on the right, is to feel they must be uninhabited. Actually they house more inhabitants per square yard than their Liverpool counterparts. Only there is privacy and room for all—even room for grass, flowers and sunshine. The view above shows the long sweep of concrete access balconies by which each flat is reached, that below the rows of separate sitting-out balconies, of which each flat has one. Yet it costs less to build flats like these than it would to rebuild the Liverpool ones to their original design.

LEEDS

GENERAL POSITION

Area		38,105 acres	
Population	1921	463,122	
	1931	482,809	(35,000 unemployed)

Decennial increase 19,687

(1921 population of areas added in intercensal decade 4,890)

1931	Persons per acre	12·7	
	Number of private families	128,696	
	Population in private families	464,589	
	Structurally separate dwelling occupied	126,056	
	(vacant	1,816)	
	Rooms occupied	532,923	
	Persons per room	0·87	

1921-31 Increase in occupied dwellings—not comparable
Increase in number of private families—not comparable

Families per occupied dwelling	1931	1·02
Average size of private family	1931	3·61 persons
Average number of persons per room	1931	0·87
Persons living more than 2 per room	1921	not comparable
	1931	38,147 or 8·21%
(Families living more than 2 per room	1931	5,640 or 4·38%)

1931	Persons living over 3 per room	7,498
	3 and over 2	30,649
	Total over 2	38,147
	2 and over 1½	59,360
	Total over 1½	97,507
	1½ and over 1	96,108

16 families living 6 or more in 1 room
272 families living 8 or more in 2 rooms

The Wards

Number of wards in city	26
Number of wards containing over all average of over 100 persons per acre	nil
Number of wards containing over all average of over 80 persons per acre	4
Number of wards containing over all average of over 1 person per room	8

Three Worst Wards on Persons Per Acre Standard

	Burmantofts	Richmond Hill	West Hunslet
Acreage	274	260	206
Population 1921	25,347	26,255	20,483
,, 1931	22,974	24,260	18,044
Persons per acre ..	83·8	93·3	87·6
Private families ..	5,447	6,182	5,082
Population in private families ..	20,592	23,641	17,761
Structurally separate dwellings occupied ..	5,406	6,102	5,015
Rooms occupied ..	17,140	18,150	19,305
Persons per room..	1·20	1·30	0·92

Three Worst Wards on Persons Per Room Standard

	Burmantofts	Holbeck (North)	Richmond Hill
Acreage	(As above)	383	(As above)
Population 1921		20,151	
,, 1931		18,241	
Persons per acre ..		47·6	
Private families ..		4,822	
Population in private families ..		17,974	
Structurally separate dwellings occupied		4,775	
Rooms occupied ..		14,865	
Persons per room..		1·21	

Construction of Houses since the War

Houses erected 1919 to December, 31 1932	23,074
by private enterprise	13,113
by Council	9,961
(357 sold or being sold)	
Houses demolished for specific slum clearance purposes over same period	281

The Census observes that :—

> "The large increase in these wards (Crossgates and Templenewsam, North and Roundhay) is attributed mainly to the construction of new houses made necessary by the demolition of other houses in the City of Leeds, consequent upon new road-making improvements."

*Some more overcrowding figures**

Overcrowding shows a remarkable improvement compared with 10 years ago. This improvement is mainly due to the decrease in the size of families. It can be seen that the Council has built less than 10,000 houses since the war.

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* The greater part of the figures and ideas on Leeds have been taken by me from a pamphlet entitled "Housing Policy in Leeds." The pamphlet is in reality a Minority Report of a City Council Sub-committee, but was published by the *Leeds Weekly Citizen*, from whom it can be obtained, price 1s., post free.

Even now :—

3,528	persons in	1,883	families occcupy	1	room
48,150	,, ,,	15,596	,, ,,	2	rooms
104,662	,, ,,	30,148	,, ,,	3	,,
135,436	,, ,,	36,919	,, ,,	4	,,

885 of the 1-room dwellings were occupied by persons living alone.

Without these the above figures show 2,643 persons in 998 rooms.

Recent investigations into particular areas show about 10% of all working-class houses overcrowded on the standard of more than 2 persons per sleeping room.

The Back-to-Backs

There are 74.805 back-to-back houses in the city.

Of these back-to-backs
- 33,632 built before 1872.
- 28,154 built between 1872 and 1890.
- 13,019 built since 1890.

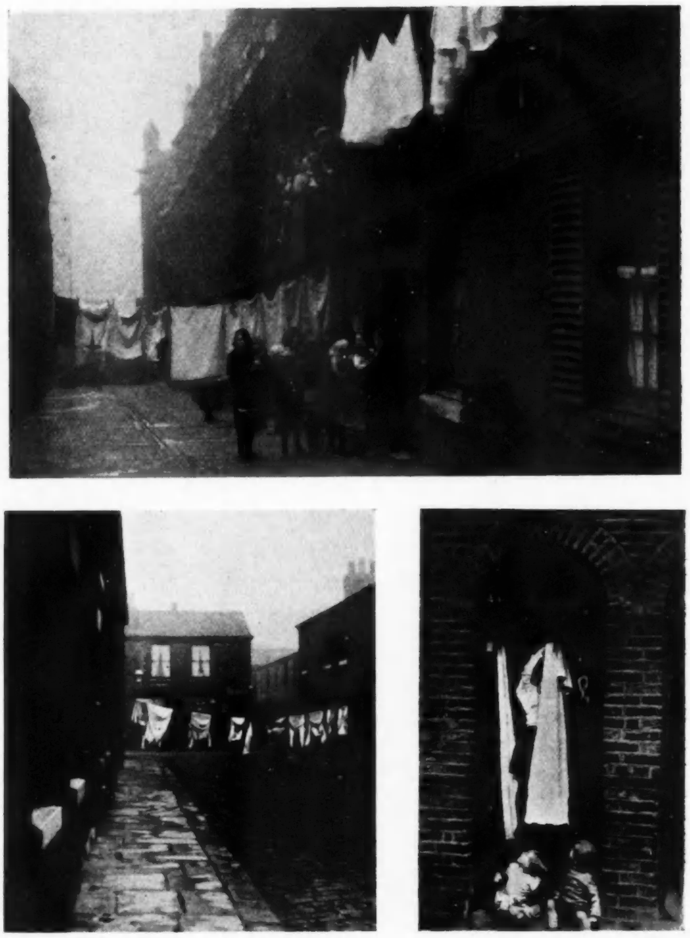
Altogether it is estimated that Leeds contains nearly 35,000 houses built before 1844 and a further 19,000 built between 1844 and 1872.

Over 32,000 of the older back-to-backs are 70 to 80 per acre, consisting of kitchen and one bedroom (sometimes a very small boxroom-bedroom as well) ; they have no scullery, no food storage facilities, no hot water facilities ; w.c.'s are shared between large numbers. The average 2-room back-to-back has a superficial area of 350 ft.

The Medical Officer of Health for the City, in his Special Report, said :—

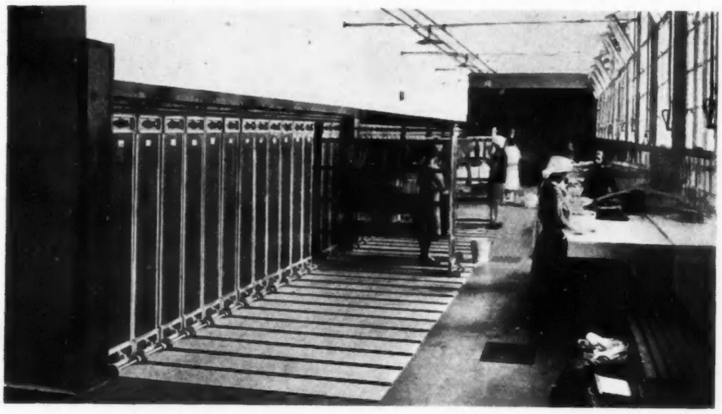
> " The modern type, generally speaking, is a good type of working-class house, to which little exception can be taken from the point of view of health. The design is, of course, open to the objection of being back-to-back, but generally speaking the structure and accommodation is satisfactory. The houses are built in rows, have a fifteen foot forecourt in front, abutting on to a street 36 feet wide, giving a total distance between the houses of 66 feet. The houses are provided with separate sanitary accommodation, and have their own ashbins. Bathing facilities are supplied in the sculleries, with hot and cold water laid on. The houses number 40 to the acre, which, it will be observed, is still much in excess of the number allowed by law today.
>
> " The oldest type, those built prior to 1872, and now numbering about 33,632, is built in long, unbroken rows, and abuts on to streets few of which exceed 22 feet in width. They consist of two rooms—a living room opening directly upon the street, and a bedroom. There is also under the living room a cellar—usually unlighted—used for storing coal. Owing to the design, ventilation is bad in both living room and bedroom, whilst not infrequently the lighting is likewise inadequate. The only provision for the storage of food is a cupboard in the living room, or, alternatively, shelves fixed on the stairs leading to the cellar. Personal and domestic washing must be done in the living room, where as a rule there is an earthenware sink with cold water laid on, and a set-pot for boiling the clothes.
>
> " There is no water closet in the house, and no accommodation for the storage of household refuse. Water closets are provided outside, usually in blocks of 2, 4 or 6, either sandwiched in between two houses—often under bedrooms—or built at one or other end of the row. The entrance to these conveniences is usually narrow and dark, and the conveniences themselves are of the old trough type situated on an inside wall. Generally speaking. the ratio of conveniences to houses is one to three—not infrequently one to four—which, judged by modern sanitary standards, is totally inadequate. Domestic refuse is deposited in an ashpit adjoining the sanitary conveniences, access to which is obtained through a small door from the dark and narrow passage referred to. In many cases the ashpit is situated under the pavement, in which case the entrance is through a trap door flush with the foot-path.
>
> " With the passage of time the walls, roofs, and woodwork of the houses show unmistakable signs of decay. In some cases the walls are bulging, and have to be tied, whilst in others it is only by constant repair that the structure can be

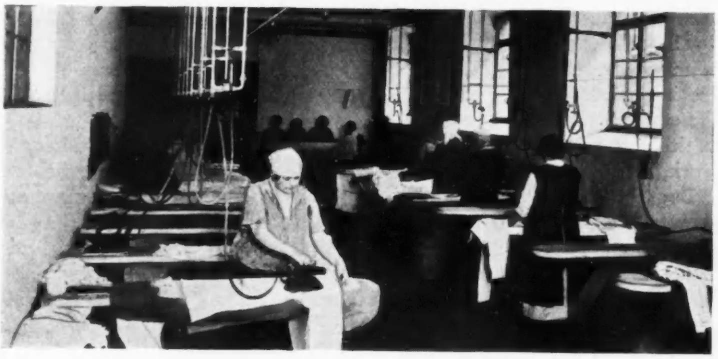
WASHING — AT



There is nowhere to hang the washing in the industrial areas of Great Britain. In the frontispiece to this issue clothes-lines are shown strung at ceiling level, from corner to corner across the living-room. Here washing is seen hung along balconies, across the streets, or even, for lack of any other place, in front-entrance doorways and passages. In the illustrations on the opposite page tenants in Vienna are enjoying the advantages of a central laundry. The upper photograph shows a gallery of drying closets in the central laundry of the Jedleseerstrasse building, and the lower the electric ironing room in that of the group of buildings at Wienerbergstrasse. The drying closets are fitted with a series of clothes-horses, running on rollers, and are heated by waste steam. The horses are pulled out, the washing is hung upon them, and they are then pushed back into the closets, where drying takes place.

HOME AND ABROAD





held together and kept weathertight. Owing to the deterioration of the structure and the absence of damp-proof courses, evidence of dampness on the inside walls and bedroom ceilings is general. A house of this type, as will be readily appreciated, lends itself to congestion, and in many parts of the city the number of these houses to the acre is as many as 70 or 80. One might also mention that in certain districts of the city—particularly Hunslet and Holbeck—there still remains a number of enlosed courts and yards—some of them extremely narrow, and most of them unpaved, on which houses of this type abut.

"The conditions as regards size, structure and layout are somewhat better in the intermediate type—those built between 1872 and 1890, numbering 28,154. Instead of in long rows, the houses are built in blocks of eight, with the sanitary conveniences situated in the gaps between the blocks. The streets are wider, averaging from 36 feet to 42 feet, but the objectionable feature still remains of the living room opening directly on to the street.

"The houses consist of living room, scullery, and two bedrooms, with occasionally an attic in addition. There is also a cellar under the living room for the storage of coal. In this type of house the domestic and personal washing is done in the scullery, and not in the living room, whilst food is stored either in a cupboard in the living room or in the scullery. The houses, generally speaking, are in a better state of repair, and signs of weathering and dampness are not so obvious. Domestic refuse is deposited either in an ashpit of the overground type, or in ashbins placed in the space between adjoining blocks. The sanitary conveniences were until recently of the old trough type, but most of them have now been converted into modern pedestal w.c.'s. The ratio of w.c.'s to houses in this type of houses is one to two. As regards congestion, whilst this is not so marked as in the case of the old type, nevertheless, the number per acre is still from 50 to 60."

The Churches in the City have made their feelings heard to the City Council.

"In many houses of this City the birth of a child must take place in the living room downstairs, for there is no spare bedroom where the mother may lie for her confinement. When death enters the house the body must frequently be laid out in the same living room downstairs, and the clergy who have to visit such houses are accustomed to the sight of the family sitting down to meals, and entertaining the numerous visitors who arrive at such times, in the room where the corpse is laid out . . . . Lack of sufficient washing accommodation means that the whole family must wash at the sink in the living room. . . . Opportunities for taking a bath are difficult to secure. The younger members may be encouraged to go to the public baths: but it is a fact that the parents get very few baths, and as they get older tend to drop the practice altogether. Lavatory accommodation is in many areas woefully inadequate. Families have to share a closet with others, usually placed in a passage nearby. They may have to walk down the street past 6 or 8 houses before arriving at the lavatory provided, usually surrounded by the dustbins. Not infrequently they arrive to find the place 'engaged' by one of the neighbours, and children, and not merely tiny ones, get into the habit of using the street instead . . . the people learn to acquiesce in these sad conditions. Something in the nature of a campaign will have to be undertaken in Leeds on this question of Housing, for the vast mass of our people are ignorant about this vital matter . . . curiously enough there seems to be an entire lack of enthusiasm for this question. . . . The reason may well prove to be that so many of our citizens—I believe about one-third—are themselves living in such inadequate housing conditions that they are unaware of the seriousness of their situation."

"For the past 31 years I have lived and worked in one of the 'slum' areas of Leeds. What exactly may be the definition of the word 'slum' I am not prepared to say . . . my definition of the 'slum' area is one in which the houses are totally unsuitable to shelter human families. . . . I can vouch for it that 9 out of 10 houses in the districts above mentioned (10 streets are given) are of this type."

"I have seen boys and girls, grown-up men and women, shouldering one another to get in or out of the w.c.'s."

"By their crowded conditions they foster diseases and immorality. That w.c.'s should be crowded together in blocks, that one such w.c. has to be used by members of more than one household, and that all have to be approached under the public eye is a scandal that should be abolished at once. . . ."

Details of 3,000 of the Oldest Houses

In 1930 the Medical Officer of Health prepared a list of 3,029 houses as a suggested demolition programme (5 years) under the Act of that year.

The programme was regarded as too large, and rejected(!) The one Housing Inspector(!) employed by the City took a door-to-door canvass of the houses.

It is to be noted that these 3,029 houses comprise several areas of some hundreds of houses, a number of smaller areas of 20—100 houses and about 200 in groups of threes and fours. The larger areas are portions of much greater districts of substantially similar character.

Twenty-five of these are single-room houses, 69 people live in them (i.e. about 2¾ per room), 5 each in 3 of them, and 6 in 1.

1,874 are two-room houses.

About 6,700 people live in them (i.e. about 3½ per dwelling or 1¾ per room), 156 of them contain 7 or more, 18 contain 9 or 10.

1,053 have 2 bedrooms—one very small always.

Over 4,000 people live in them (i.e., about 4 per dwelling, or 1⅓ per room), 116 contain 7 or more, 21 contain 9 or more, 2 contain 11.

Only 77 contain 3 bedrooms or more.

Overcrowding in these Houses

385 of these are overcrowded on the more than 2 per room standard, but with children under 10 counted as half an adult. (The Report mistakenly calls this the Registrar-General's Standard.)

On the National Standard of Bedroom Accommodation (which is far superior, but may yet be seriously deficient in that, for example, a family of mother, father, grown-up son and grown-up daughter is not deemed overcrowded in 2 bedrooms) 2,430 more bedrooms are required in these 3,029 houses.

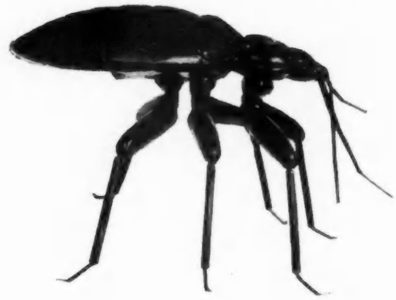
This figure was arrived at by a detailed analysis of the houses in grades. These grades showed the inhabitants of each dwelling differentiated according to age and sex; without going into this detail, no analysis would be possible.*

Taking the figures for the above classes of dwelling for the whole City and assuming in each case that the shortage will be half what it is in these 3,000 odd houses, it may be estimated that 13,000 more bedrooms are required. This is a very low estimate, and in any case refers only to the pre-1872 back-to-backs.

Vital Statistics of Bad Areas. Ten-Year Averages

	Birth Rate.	Death Rate.	Infantile Mortality Rate.	T.B. Death Rate.	Other Respiratory Diseases Death Rate.
1. West Street (202 houses. 694 persons)	35·3	23·6	176	3·31	4·90
2. Meadow Lane (283 houses. 1,150 persons)	26·2	22·7	154	1·55	4·56
3. Newtown (246 houses. 864 persons)	32·2	17·1	137	1·85	2·89
4. Isles Lane (231 houses. 894 persons)	30·2	22·9	141	2·91	5·59
5. . . . (689 houses. 2,904 persons) ..	27·7	19·1	118	2·24	4·34
City	17·6	13·5	91	1·28	2·30
Normal healthy area .. . This is not a special area. It is a compact area of 470 " modern " back-to-backs; population 1,753.)	9·4	9·5	73	0·63	1·54

THE BUG



THE bug is a common insect pest, an unclean fellow who lives on human blood, and likes dark, unventilated, stuffy apartments. He makes himself snug in warm and dirty corners, and emerges at night to take his nourishment.

The fully-grown adult is readily recognized as a flat, mahogany-brown coloured, six-legged, wingless, blood-sucking insect of nocturnal habits. He is about a quarter of an inch long and an eighth of an inch wide. He can live for several months without food, and when unfed his body is as thin as paper, so that he can retire into the narrowest of chinks in woodwork, furniture, picture frames and even the joints of iron bedsteads.

Bugs in captivity fed on human blood at intervals of approximately six weeks, do not arrive at maturity for about two years, and breeding then progresses only from March to September, the progeny often numbering over 200 in a single season.

The bug feeds by inserting its sharp proboscis, usually into human beings, and rapidly sucking blood until it is full. The insect is fragile and easily squashed. It omits a heavy, offensive odour which, in addition to being disgusting to human beings, protects it from being preyed upon by its natural enemies.

In order to prevent infestation, it is essential to know the creature's habits and the stages of life from egg to adult.

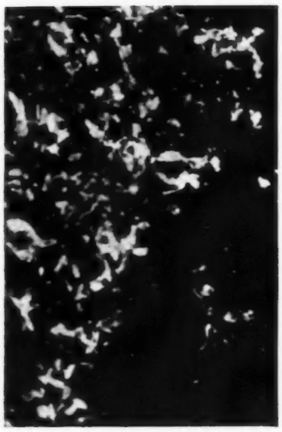
The eggs are secured by a thin cement to the material upon which they are laid—wood, stone, metal or any fabric, such as the edges of a mattress. They are elongated, ovoid, pearly-looking structures visible to the naked eye.

Normally the young bug emerges within ten days of the egg being laid, but eggs may lie unhatched throughout the winter months, tiding the young insect over a very difficult period. The egg case affords the embryo a strong protection against noxious gases, and the young bug must be hatched before it can be gassed with certainty.

From the time of its birth the bug is capable of sucking blood, which it does most greedily. Its bite at this stage is practically painless, but a small red spot indicates the site of the puncture.

The bug is often introduced into new houses in the personal belongings of those who have come from an old one.

It constitutes one of the major horrors of slum life, and the only way to deal with bug-infested houses is to pull them down. Thousands of houses in England are bug-infested.



A Stronghold of the Bug.

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* I have previously pointed out that the absence of such details, unless they are specially collected, as in this case—which is only possible for a small area—makes it impossible to use, say, the Manchester Standard or the National Bedroom Standard for estimating the number of houses needed by the different cities.

Pillow in a bug-infested house, with copious stains of human blood, some spilt by the insects in the act of biting, some extruded from the bodies of bugs crushed by restless movements of the sleeper.

The Medical Officer of Health commented :

> " That bad housing conditions favour the incidence of such diseases as tuberculosis and pneumonia is universally recognized. . . . At the present time the city, through municipal and voluntary agencies, is expending huge sums of money every year in the upkeep of hospitals and sanatoria, to say nothing of home treatment of the sick under the National Health Insurance scheme and the Public Assistance Committee. Then there is the loss to the employers and workers alike, amounting to thousands of weeks in the year, resulting from " broken time," caused by illness. Not all of this immense loss is due to bad housing, but a substantial proportion undoubtedly is. I, for one, am convinced that with the slums swept out of existence we could reduce the bill by at least 50 per cent."

The Special Report of the Medical Officer of Health contained the following :—

> " The final test of the health of a population is its vital statistics. . . . On the other side of the picture we have the squalor and unhealthiness of the slum, where life is on a low plane, and in consequence ideals of domestic and communal hygiene are unappreciated and absent. Children are born in large numbers and die at a correspondingly high rate. Sickness and ill-health are occurrences which are common in every home, and have become practically a constant feature of the life of the people. They have become immured to physical suffering and fail to realize the significance of disease—either from the point of view of the individual or of the community. I am afraid the citizens in general do not appreciate what the unfavourable health statistics of a slum in their midst mean, to their own and to the well-being of the population as a whole."

Tuberculosis

December 31, 1931—4,109 registered cases. Cost to the city—£55,986, i.e. 4·71d. per £ on rates.

The Annual Report of the Medical Officer of Health says :—

> " The stream of (tuberculosis) notifications has been falling in volume since 1925, the total decrease for the whole period 1925—1931 being 54·9 per cent. . . . It is too much to expect, however, that the curve will continue to descend at the same rate in succeeding years as it has done in the past decade ; indeed there is every likelihood that it will tend to flatten out and become more or less stationary, because as long as the housing conditions in the city are such as they are, it is obviously impossible completely to overcome a disease which is social in character and closely bound up with such things as overcrowding, lack of hygiene and poverty."

The following table shows some Ward figures for non-pulmonary tuberculosis. It will be observed that the three " leading " Wards are those with the highest average of persons per room.

Richmond Hill ..	2·17
Holbeck North ..	1·85
Burmantofts ..	1·34
Mill Hill ..	1·33
South	1·33
Crossgates ..	0·21
Templenewsam ..	0·21
Roundhay ..	0·26
Far Headingley	0·27
North	0·32

(The City spent 4·71d. per £ rateable value on tuberculosis, and 5·922d. on all aspects of housing—2·458d. on *all* schemes connected with slum clearance and improvements.)

The Five-Year Programme under the 1930 Act was—

Houses to be demolished, 2,000 (excluding West Street area).
Houses to be erected to replace them, 1,800.
Houses to be built (Wheatley Act), 3,200.

What has been done under the Five-Year Programme in the first two years, 1931 and 1932

Houses "represented" for demolition,	25
Houses built or contracted for to November, 1932	942

Present Position

7 Clearance Areas have just been declared. These comprise 1,049 buildings, of which 863 are back-to-backs and involve 3,831 people.

The West Street area (involving 198 houses, of which 194 are back-to-backs, and house 694 people) will also be demolished. The clearance of this area was decided on in 1927, but was held up by the adverse decision in the Derby case (like the John Street, Longton, Stoke scheme).

This totals 1,200 demolitions likely by the end of this year.

A Note on "Subsidization"

It has frequently been maintained that houses provided by local authorities, by bearing rates, pay for themselves so far as the municipal subsidy is concerned. The following figures are of interest. They refer to Leeds in 1930-1.

Number of municipal houses completed at 31st March, 1931	6,888
Rateable value	£94,296
Rate income	£56,617
Charge of same houses on rates ..	£26,539

These figures show that about one-half of the rate income derived from municipally-built houses goes to pay the municipal subsidy on them.

The point must not be pressed too far. For :—

1. The national subsidy is still necessary,
2. The local authority may well maintain that their tenants therefore pay only at half-rate for all the other services which they enjoy, and this contention is quite obviously true.

●

CONCLUSION

We have seen from the above that Leeds may truly be called a "city of back-to-backs." It contains some 75,000 houses of this type out of about 125,000 houses. Three-fifths of the houses are of this revolting architecture. Nearly three-quarters of the working class population must live in them—350,000 people.

The Medical Officer of Health says that 16,000 of the oldest back-to-backs require immediate treatment. The Council's plan is to demolish 2,000 in 5 years, and to build *altogether* 5,000 in 5 years. If the Medical Officer of Health's ideas are a minimum, the Council's are appalling in their inadequacy.

There appears to be no doubt that all the "old" and "intermediate" back-to-backs are blots upon a civilized world. The modern type, though comparatively good, are still of the same culpable design. It would not be straining too far to say that all the old and intermediate ones should be demolished as rapidly as possible. But this means over 60,000 houses, and the provision of these in any space of time that can be envisaged would appear Utopian.

Perhaps it may be as well to work out the requirements of Leeds on the "formula :"

7,498 people living over 3 per room (assume average of 4) have rather less than 2,000 rooms.
They should have 5,000.
The shortage is thus over 3,000.

30,649 people living 3 and over 2 per room (assume average 2½) have 12,250 rooms.
They should have 20,500.
The shortage is thus 8,250.

59,360 people living 2 and over 1½ per room (assume average 1¾) have 34,000 rooms.
They should have nearly 40,000.
The shortage is nearly 6,000.

The minimum shortage is thus over 17,000, the maximum requirements (if all the overcrowded houses at present lived in are unfit) are 65,000.

We increase these figures by about one-quarter because of the impossibility of housing everyone at exactly one-and-a-half per room—i.e., to 22,000 and 81,000.

The geometric mean is about 41,000 (rooms required).

So that to reduce the overcrowding in Leeds to a level such that no family would be living over one-and-a-half per room would require perhaps only 5,000 houses.

Leeds is not very overcrowded. The general average for the city is 0·87 persons per room, and though eight Wards show over one person per room average, the worst are 1·30, 1·21 and 1·20. The important point is the low size of the family (3·6 persons). The importance of this is shown by the fact that in all the "one up and one down" back-to-backs there are only 272 containing eight or more persons. It must be emphasized that if reconditioning were resorted to, rents would be likely to increase from, say, 8s. to 12s. Then overcrowding would be caused.

So that our figure of 5,000 houses as representing the needs of the population as regards overcrowding is very low, just as our figure of 60,000 as the houses required in order to demolish all the pre-1890 back-to-backs may appear fantastically high—especially to those who have not seen the houses in question. It is to be noted, however, that the Unhealthy Areas Committee of 1920 "condemned" all the 60,000 and stated that "it is difficult to suggest any method of dealing with (the 33,500 worst of them) satisfactorily short of complete clearance."

A de-licensed public-house, containing twelve rooms, each let at 11s. to 15s. a week, furnished, to a separate family. It is inhabited by 46 persons, of whom 24 are children. There are two water-taps and two w.c's., no cooking facilities except open grates, and no food storage facilities.

The present plan of the Council is to demolish 400 back-to-backs a year.

This programme will get rid of the :

Medical Officer of Health's 16,000 in 40 years.
33,500 oldest in 84 years.
60,000 (oldest plus intermediate) in 150 years.
Whole 75,000 in 190 years.

By then the population increase will presumably have had some effect, and the houses put up to day will have fallen down.

It is to be recalled that 33,500 is the number of back-to-backs built before 1872. But there are nearly 35,000 houses still existing which were built before 1844, before the first Health of Town Act.

In the face of these figures it is almost impossible to find a minimum. The real requirements are certainly as high as 70,000—i.e. all the pre-1890 back-to-backs and 10,000 of the other pre-1872 houses (these would in fact be pre-1844).

Perhaps we had better follow the Unhealthy Areas Committee of 1920 and say that 33,000 must be replaced immediately. This must not blind us to the fact that the number represents only about one-half of the real wants of the inhabitants.

Owing to the fact that back-to-backs are 50-70 per acre, some flats will be essential, but estates are a practical solution in many cases because of industrial diversity. The area of the city is very large, indeed, half that of the administrative County of London. So the estates need not be outside the city—a phenomenon common in the Metropolis !

MANCHESTER

GENERAL POSITION

Area		27,257 acres	
Population	1921	735,774	
	1931	766,378	(60,000 unemployed)

Decennial increase 30,604

(1921 population of areas added in intercensal decade 5,467)

1931	Persons per acre	28.1
	Number of private families	190,928
	Population in private families	726,812
	Structurally separate dwellings occupied	177,430 (vacant 1,868)
	Rooms occupied	835,776
	Persons per room	0.87

1921-31	Increase in occupied dwellings		21,168
	Increase in number of private families		25,719
	Families per occupied dwelling	1921	1.06
		1931	1.08
	Average size of private family	1921	4.31 persons
		1931	3.81 persons
	Average number of persons per room	1921	0.96
		1931	0.87
	Persons living more than 2 per room	1921	55,727 or 7.88%
		1931	48,832 or 6.72%
	(Families living more than 2 per room	1931	7,168 or 3.75%)

1931	Persons living over 3 per room	8,864
	3 and over 2	39,968
	Total over 2	48,832
	2 and over 1½	89,330
	Total over 1½	138,162
	1½ and over 1	163,762

135 families living 6 or more in 1 room
144 families living 8 or more in 2 rooms

The Wards

Number of wards in city	36
Number of wards containing over all average of over 100 persons per acre	4
Number of wards containing over all average of over 80 persons per acre	8
Number of wards containing over all average of over 1 person per room	12

Three Worst Wards on Persons Per Acre Standard

	Beswick	Collyhurst	Med-lock St.
Acreage	254	232	212
Population 1921 ..	31,398	25,379	32,520
,, 1931 ..	28,541	23,872	28,251
Persons per acre ..	112·4	102·9	133·2
Private families ..	6,992	5,672	7,206
Population in private families ..	28,043	23,469	27,393
Structurally separate dwellings occupied ..	6,557	5,388	6,346
Rooms occupied	27,047	21,455	28,065
Persons per room	1·04	1·09	0·98

Three Worst Wards on Persons Per Room Standard

	New Cross	St. Clements	St. Michaels
Acreage	303	181	243
Population 1921 ..	29,464	6,771	20,488
,, 1931 ..	28,284	6,301	19,742
Persons per acre ..	93·3	34·8	81·2
Private families ..	6,060	1,407	4,327
Population in private families ..	25,566	5,923	18,326
Structurally separate dwellings occupied ..	5,674	1,306	3,863
Rooms occupied ..	21,056	4,995	15,396
Persons per room ..	1·21	1·19	1·19

Construction of Houses since the War

Houses erected 1919 to June 30, 1932	31,317
by private enterprise	10,750
by Council (none sold or being sold)	20,567
Houses demolished for specific slum clearance purposes over same period	199

Infantile Mortality Rate

1930	78	1931	85

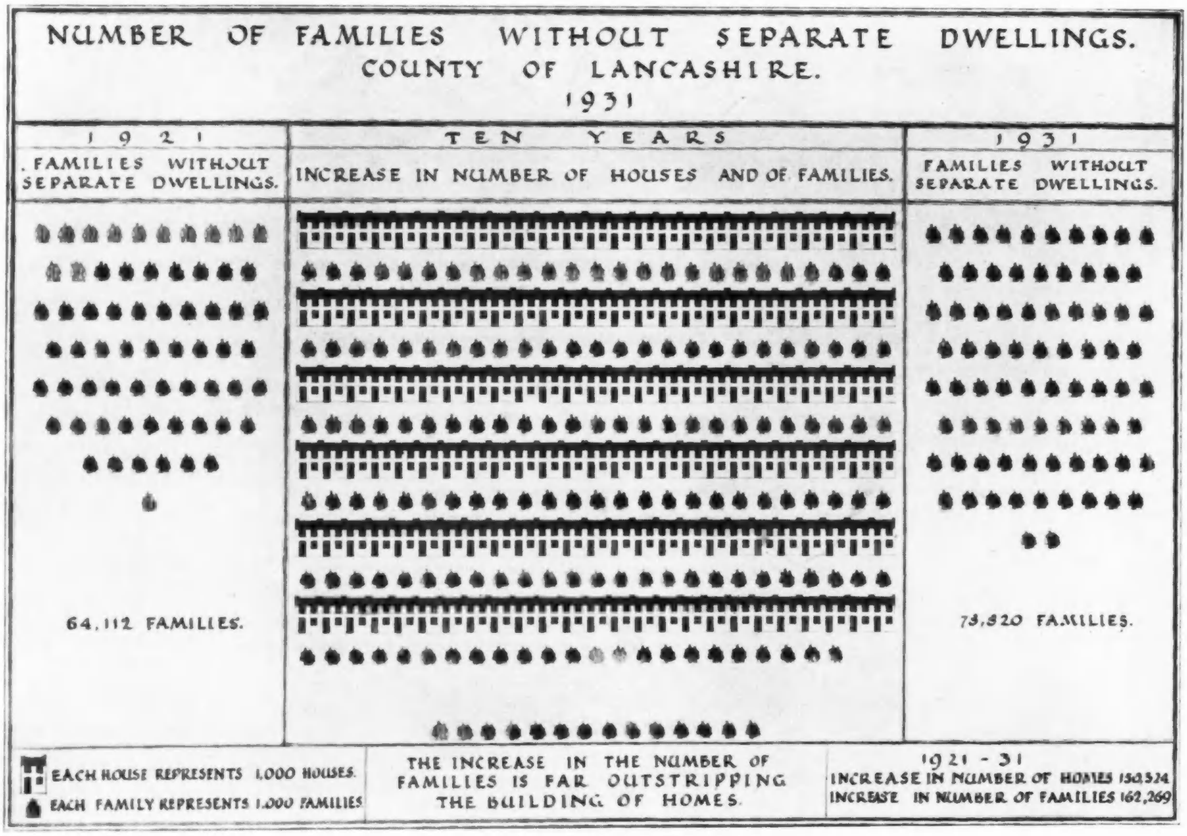
Overcrowding and Insanitation as revealed by Medical Officer of Health's House-to-House Inspections in 1931

There are 36 wards in the city.

In four of these—Exchange, Oxford, St. Andrew's and St. John's, no houses were inspected.

The following is a summary of the results of these inspections :—

Houses inspected	8,878
Rooms per house :—	
One room	5
Two rooms	141
Three rooms	1,333



The increase in the number of families is far outstripping the building of homes. This means an increase in slums.

Four rooms	4,058	
Five rooms	2,142	
Six rooms or more	1,199	
Business Premises :—		
Partial	646	
Total	71	
Overcrowded Houses :—		
Registrar General's Standard	263	
Manchester Standard	1,359	
Social Standard	1,187	
Want of cleanliness	532	
Inadequate light	2,730	
Inadequate ventilation	3,617	
Dampness	3,582	
No proper food storage	8,204	
No proper facilities for domestic washing	1,055	
Disrepair	6,041	
Bad arrangement	3,359	
Classification :—		
Good		870
Minor defects		1,969
Serious defects, remediable without reconstruction		2,501
Serious defects, irremediable without reconstruction		1,191
Unfit		2,347

Some of the wards show no houses classified as "good," so far as the houses inspected are concerned.

MANCHESTER

Beswick. 444 houses inspected.

10 good, 209 with minor defects, 38 serious defects remediable without reconstruction, 73 only remediable by reconstruction, 114 unfit.

231 damp, food storage facilities satisfactory in only 39.

88 of the houses overcrowded on the Manchester Standard and 15 on the Registrar General's Standard.

All Saints. 266 houses inspected.

None were good, 38 had minor defects or serious defects remediable without reconstruction, 98 were irremediable without reconstruction, and 130, just under 50%, were unfit.

205 of the houses were inadequate as regards light, 225 had inadequate ventilation, 59 were damp. In only 11 were food storage facilities adequate.

58 of the houses were overcrowded on the Manchester Standard and 8 on the Registrar General's.

Collyhurst. 297 houses inspected.

None good, 1 with minor defects, 2 remediable without reconstruction, 244 only remediable by reconstruction, 50 unfit.

182 damp, food storage satisfactory in only 1, adequate light in only 15, adequate ventilation in only 41.

78 of the houses overcrowded on the Manchester Standard and 16 on the Registrar General's.

Medlock Street. 310 houses inspected.

273 houses unfit, none either "good" or "minor defects."

153 damp, only 1 with adequate food storage, about 85% with inadequate light and/or ventilation.

36 houses overcrowded on Manchester Standard and 13 on Registrar General's.

Miles Platting. 312 houses inspected.

5 good, 61 with minor defects, 63 with serious defects remediable without reconstruction, 29 irremediable without reconstruction, 154 unfit.

86 damp, and about half suffering from inadequate lighting and/or ventilation, food storage satisfactory in only 5.

95 houses overcrowded on Manchester Standard and 21 on Registrar General's.

New Cross (Ancoats). 373 houses inspected.

None good, minor defects in 3, serious defects remediable without reconstruction in 43, 162 irremediable without reconstruction, 165 unfit.

No. 8, L—— Street, Salford, has two rooms up and one down and scullery. The back bedroom is very small. The family consists of husband, wife, daughters, aged 23 and 19, and sons, aged 18, 13, 9, 5 and 2—nine people in all. The girls sleep in the back bedroom, the two eldest sons sleep in a single bed in their parents' room, and in a double bed in the same room the parents sleep with the child of 2, and at the foot of the bed the other three small boys—that is six people in one bed. The house is alive with bugs. No skirting boards to bedrooms, roof leaks, floor broken in one bedroom. Roof so weak slaters afraid to go up to repair.

No. 5, C——Street, is a one-up-and-one-down back-to-back house; water closet is shared with six other houses. The tenant has concreted a large part of the cellar, but this is still very damp. He also pays 1/- a week for disinfectant to put down the drains. The only tap is in the cellar down a deep, dark stair. No sink—waste water has to be tipped in the street. The family consists of husband, wife, sons, aged 17, 16, 11 and 9, and daughters, 6 and 2—eight people in all; another baby is expected.

—*From* HOUSING CONDITIONS IN THE ST. MATTHIAS WARD, SALFORD

228 damp, 328 inadequately ventilated, 227 with inadequate light.

99 houses overcrowded on Manchester Standard, 31 on Registrar General's.

St. George's. 491 houses inspected.

487 unfit (!)

St. Clement's. 274 houses inspected.

119 unfit, and 155 irremediable without reconstruction. None classified as good, or suffering from minor defects or remediable without reconstruction.

154 damp, rather more with inadequate light and/or ventilation, food storage satisfactory in 4.

82 houses overcrowded on Manchester Standard and 13 on Registrar General's.

St. Michael's. 296 houses inspected.

None good, 11 with minor defects, 27 with serious defects remediable without reconstruction, 3 irremediable without reconstruction, 255 unfit.

61 damp, 234 with inadequate light, 249 with inadequate ventilation, food storage satisfactory in only 6.

70 houses overcrowded on Manchester Standard and 15 on Registrar General's.

Six of the 9 Wards whose figures are quoted above correspond with the 6 for which figures were taken from the Census.

A great deal of further information on many of these areas is obtainable from the pamphlets issued by the Manchester and Salford Better Housing Council and the Manchester and District Regional Survey Society.

It is stated that in St. Clement's Ward "Under the Arches (behind London Road Station)" there is much property dating to 1740. Some has been "reconditioned" in various ways.

595 houses were inspected in this area, 3 have baths, 52 have no wash-boiler, 17 no inside tap, 10 have pail or ash-closets. 173 are overcrowded on the Manchester Standard, 37 on the Registrar General's.

This is worth quoting:

> "1 boxroom up, and 1 down: rent 6s. 7d.; 5 persons. The entire family sleep in one bedroom, as the boxroom is unfit for habitation owing to crumbling walls and falling plaster. Rain penetrates bedroom roof and soaks beds in wet weather; leaking lavatory roof. The cupboard is unfit for food owing to vermin; house overrun by mice and beetles."

Masses of information similar to the above can be obtained from official statistics and reports of private investigations.

Manchester knows all about its slums.

But what does it do?

Work of the Council

Manchester does very little, by comparison with Liverpool, or Sheffield, or Bristol.

Since the war one slum clearance scheme has been carried out, in Medlock Street Ward. 199 houses were demolished. This was part of a much larger area, the Hulme Clearance area, condemned 12 years ago but still standing.

A Picture of the Hulme Clearance Area

Houses	1,076
Population	4,767
Persons per house ..	4·43
Houses containing lodgers	27·9%
Houses required to rehouse	1,256

Death Rate 21·8 (Ward 15·3, City 13·9).

Infantile Mortality Rate, 135 (Ward 101, City 91).

Phthisis Death Rate, 2.39 (Ward 1·74, City 1·41).

(Death Rates are 1925-29 averages.)

The Council's Five-Year Plan

5,400 houses to be demolished.

6,000 to be built to rehouse those displaced and abate overcrowding in Improvement Areas.

1,000 in 1931.
1,100 in 1932.
1,200 in 1933.
1,300 in 1934.
1,400 in 1935.

The Council will have to hurry to catch up with this. So far, the figure for those built should be about 2,500. It stands at—nil (!)

"Many cases of overcrowding have been found during the year, but the shortness of houses at rents which the affected persons can afford to pay renders the service of notices practically futile." (Annual Report of Medical Officer of Health.)

Waiting list for Council houses 10,000.

What can be done?

In the 30 years preceding the war, 27,000 houses were dealt with by the authorities. 7,000 were demolished. 3,000 back-to-backs were converted.

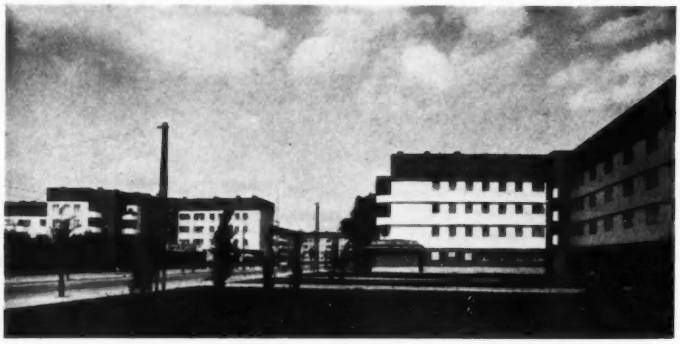
Reconditioning has gone as far as is practicable in the worst areas. The Medical Officer of Health has said:

"There are many thousands of houses which are on the list for the consideration of the Unhealthy Dwellings Sub-Committee, and some upon which closing orders have been made but not enforced owing to housing shortage. Whilst it is not practicable to repair these houses thoroughly, urgent defects, such as choked drains, leaky roofs, broken floors, and yard surfaces, etc., are frequently reported and receive immediate attention."

Filtering-up

Manchester does not lag behind as far as the provision of houses, *qua* houses, is concerned. Over 20,000 have been put up since the war. Overcrowding is now 3·75 per cent. of all families and 6·72 per cent. of all persons, on the Registrar General's Standard. Though this involves 50,000 people living over 2 per room, it seems that the time has come to cease or at any rate diminish the speed at which expensive Council houses are put up. The 10,000 applicants for Council houses will include a large number of relatively well-to-do families, seeking suburban Wythenshawe cheapness. (The total number of applicants for Wythenshawe houses is over 2,000.) It will also include a large number of people who are living in

A CONTRAST IN HOUSING



The Manchester sky-line (when visible at all) discloses itself fitfully between mercifully frequent wisps of fog as a devil's cauldron of chimneys, belching soot over long funereal slabs of black-slated roof. So chaotic are all outlines in this sulphurous twilight that a telegraph pole stands up as the one embodiment of definite form. Here free Britons live, are begotten, born and die. The gleaming white and red tenements at Lichtensberg house an identical type of population—not huddled together literally in stall-like hutches, but in spacious, balconied flats, with abundant light and air, a clear sky overhead, and grass to look out upon.

insanitary as well as overcrowded houses. Many of these will have to go hungry if they are "fortunate" enough to obtain a Council house.

But there is some chance of filtering-up taking place. The explanation of why this is so in the case of Manchester is that the proposed filtering-up could take place *through municipal houses.* In cities where the idea is for the slum-dweller to move into better privately-owned dwellings, the factor of decontrol makes filtering-up unlikely. The decontrolled rents of the intermediate houses may well be higher than those of the Council houses.

Manchester may be said to have two classes of Council house. And, therefore, it is possible that there will be some shift from the lower range to Wythenshawe, freeing houses on the nearer estates for slum dwellers. The number that can be rehoused in this way cannot, however, be very large, for the nearer estates are fairly full up.

Apart from this there is the question of the public morality of housing a considerable number of people with respectable incomes in Council houses bearing rents of 15s. and £1 a week at the public expense, while leaving the slum dweller to chance.

●

CONCLUSION

The Manchester slum dwellers cannot be housed outside the City proper. Wythenshawe is five miles out, and the houses there are too expensive.

The Wheatley subsidy has been brought to an end. Flats are necessary on a large scale, as in Somers Town, St. Pancras, though perhaps the occupants of a thousand or so houses might filter to near-in Council estates.

8,864 people living over 3 per room (assume average 4), have less than 2,250 rooms. They should have over 5,900, and therefore need nearly 3,750 more.

39,968 people living 3 and over 2 per room (assume average 2½) have 16,000 rooms. They should have over 26,500, and therefore need over 10,500 more.

89,330 people living 2 and over 1½ per room (assume average 1¾) have 51,000 rooms. They should have nearly 60,000, and therefore lack nearly 9,000.

The minimum requirements to abate overcrowding are therefore 23,000 and the maximum, if all the houses were unfit, 92,500.

Raising these by 25 per cent. gives 30,000 and 115,000. Using the geometric mean would give about 60,000 rooms, say 14,000 houses, required.

The use of the geometric mean principle in the case of Manchester produces a figure which we know to be far too low. Manchester is not overcrowded by comparison with most towns. The proportion of people in Manchester living over 2 per room is less than it is in Birmingham, despite the 40,000 houses built by the latter.

If we use the mathematical approach we should deduce that the requirements of the City are about 7,000 to abate overcrowding, and 7,000 to replace insanitary dwellings.

But the true requirements of Manchester are well known, so we can desert our "conservative" analysis. We know that 8,000 houses have been condemned, and that the Medical Officer of Health for the City has estimated the total number of insanitary dwellings at 30,000.

Many of these houses might be suitable for reconditioning if they were to be dealt with as units. But where most of the houses in an area are unfit, those which could themselves be reconditioned ought to come down too, to make large-scale re-housing possible. Taking this into consideration, it seems likely that to take 23,000 as the number of unfit houses unsuitable for reconditioning would not be to exaggerate. This would give 30,000 as the total needs of the City.

(An analysis by the M.O.H. gives a 15-year plan. Net requirements for period are 42,100. 11,550 of this is to accommodate natural increase.)

BIRMINGHAM

GENERAL POSITION

Area	51,147 acres	
Population 1921	922,167	
1931	1,002,603	(55,000 unemployed)
Decennial increase	80,436	

(1921 population of areas added in intercensal decade 2,723)

1931	Persons per acre		19·6
	Number of private families		249,907
	Population in private families		962,155
	Structurally separate dwellings occupied		236,661
	(vacant		2,760)
	Rooms occupied		1,161,545
	Persons per room		0·83
1921–31	Increase in occupied dwellings		46,202
	Increase in number of private families		46,094
	Families per occupied dwelling	1921	1·07
		1931	1·06
	Average size of private family	1921	4·38
		1931	3·85
	Average number of persons per room	1921	0·94
		1931	0·83
	Persons living more than 2 per room	1921	90,686 or 10·15%
		1931	68,111 or 7·08%
	(Families living more than 2 per room	1931	9,009 or 3·60%)

1931	Persons living over 3 per room	11,455
	3 and over 2	56,656
	Total over 2	68,111
	2 and over 1½	112,635
	Total over 1½	180,746
	1½ and over 1	186,129

130 families living 6 or more in 1 room
102 families living 8 or more in 2 rooms

The Wards

Number of wards in city	31
Number of wards containing over all average of over 100 persons per acre	nil
Number of wards containing over all average of over 80 persons per acre	4
Number of wards containing over all average of over 1 person per room	7

Three Worst Wards on Persons Per Acre Standard

	Ladywood	St. Martin's and Detritend	St. Mary's
Acreage	302	410	353
Population 1921 ..	30,183	44,990	34,465
,, 1931 ..	26,275	39,309	30,657
Persons per acre ..	87·0	95·9	86·8
Private families ..	6,626	9,043	6,654
Population in private families ..	25,740	36,866	28,245
Structurally separate dwellings occupied ..	6,214	8,587	6,298
Rooms occupied ..	23,906	32,488	23,665
Persons per room ..	1·08	1·13	1·19

Three Worst Wards on Persons Per Room Standard

	St. Martin's and Detritend	St. Mary's	St. Paul's
Acreage	(As above)	(As above)	388
Population 1921 ..			31,550
,, 1931 ..			27,532
Persons per acre ..			71·0
Private families ..			6,757
Population in private families ..			26,947
Structurally separate dwellings occupied ..			6,344
Rooms occupied ..			22,633
Persons per room ..			1·19

Construction of Houses since the War

Houses erected 1919 to June 30, 1932	56,648
by private enterprise	16,599
by Council	40,049
(Number of these sold or being sold	3,286)
Houses demolished for specific slum clearance purposes over same period	92

Clearance Work, etc.

There are three schemes of clearance and improvement formulated at present, one sanctioned clearance scheme which will be followed by rehousing on the site; one clearance scheme awaiting confirmation by the Ministry of Health; a large improvement area reaching the stage where families will be displaced. Three small schemes are under consideration.

General Notes

Over 40,000 municipal houses have been built in the city since the war.

It will be noticed that Birmingham is the only one of the five largest provincial cities where building has more than kept pace with the increased number of *families*. Birmingham is, in fact, complacent on matters of housing. But the slums and the back-to-backs live on. The provision of

THE DESCENT OF MAN

In a home fit for gorillas to live in the country possesses an asset which may be regarded as a standard of comparison for future building--for human beings as well as animals. The paragraphs in italics refer to the Gorilla House, and those in Roman type are quotations from slum reports.

The new Gorilla House in the Zoological Gardens, London, shows the thoughtful care devoted to this housing problem. Gorillas are liable to the diseases of man, and are, therefore, protected in winter by movable glass screens.

Here the place is infested by rats and cockroaches, family in bad health—suffering with chests. Two children have died of diphtheria.

The windows are provided with blinds which can darken the cage, so that the tropical conditions, natural to gorillas, of twelve hours darkness and twelve hours light may be reproduced.

Bedroom in which the family sleep is practically pitch dark even in the daytime.

In the centre of the floor of the winter cage there is a small basin and fountain, operated by a brass knob in the floor, manipulated by the gorillas.

A very bad feature of this property is the water and lavatory accommodation—one tap between six houses and one w.c. between three.

Inside, the colour scheme was chosen to eliminate the oppressive sense of prison that is apparent in many animal cages.

The walls of the room are covered with a pink distemper, the distemper flaking off with the damp.

Council houses at 10s. a week, built on estates outside the city, and therefore necessitating probably another 3s. in fares, does not solve the problems of the slum dweller.

The position in Birmingham is that there are enormous numbers of houses which are not "legal" slums, but which are definitely unfit to live in. This description applies particularly to court houses and back-to-backs, which were "reconditioned" by removing one or two per block in the period immediately preceding the war.

•

CONCLUSION

11,455 persons living over 3 per room (assume average 4) have under 3,000 rooms. They should have over 7,500, and therefore require well over 4,500 more.

56,656 persons living 3 and over 2 (assume average 2½) have 22,600 rooms. They should have 37,750, and therefore require well over 15,000 more.

112,635 persons living 2 and over 1½ (assume average 1¾) have 64,500 rooms. They should have 75,000, and therefore require 10,500 more.

Minimum requirements on this basis are, therefore, 30,000, and maximum requirements, if all the overcrowded houses were unfit, would be 120,000. Raising these by 25 per cent. to allow for the fact that people cannot be housed at precisely 1½ per room, we get 37,500 and 150,000. The geometric mean of these is 75,000.

So that another 18,000 houses are required on our overcrowding formula analysis.

But there are about 40,000 back-to-backs in Birmingham. Some have no light, water or lavatory, and the rents of these may be 8s. a week (as are some single rooms in the larger houses). Any real plan ought to include the demolition of all these and the satisfactory re-housing of their inhabitants.

In the case of Leeds it has been decided that all the pre-1890 back-to-backs should be demolished. Assuming that Birmingham has no post-1890 back-to-backs, which is, I think, true (most of them are pre-1844), then the needs of the city are probably about 50,000 houses. The choice of that figure makes allowance for the fact that a considerable number of the back-to-backs will have already been decided as unfit by the operation of the "formula"—perhaps as many as 8,000.

To decide on such a figure is not to belittle the work of the City Council. Far from it. But it is certain that the time has come for a little more attention to be focussed upon the real slum dwellings, and those most overcrowded.

Let us not forget 68,111 people (7·08% of the population) living over 2 per room. This figure compares with 38,147 (8·21%) for Leeds, 89,336 (10·94%) for Liverpool, and 48,832 (6·72%) for Manchester. On the "Registrar General's" Standard, Birmingham therefore compares a little unfavourably with Manchester, while Liverpool is only 50% worse.

Or take the overcrowding at *more than three.* Birmingham has 11,455 people living at over 3 per room (1·14%). This compares with 1·55% for Leeds, 2·40% for Liverpool and 1·16% for Manchester. On this basis Birmingham is less than half as bad as Liverpool, and rather better than Leeds—the same as Manchester.

There does not appear to be any ground for complacency here.

Let us have a look at the expressed wants of the inhabitants.

There are over 25,000 applicants for Council houses now on the waiting list. This must represent 60,000 persons at least.

The housing activities of Birmingham, while far in advance of those of most cities, have solved neither overcrowding of the worst type nor the slum problem. The cynic might observe that they have, however, been an admirable solution, in many cases, to the problem of the middle-class salary-earner wishing to live cheaply in the suburbs on an income of, say, £200 to £350 a year.

Sir Austen Chamberlain on the Birmingham Slums

Speech made in the House of Commons :—

"... house after house, court after court, where the houses as they stand are not fit for any human being to live in . . . a door which he has to prop to and fasten with a chair at night because it is hanging loose upon its hinges . . . paper peeling off the walls . . . a bed propped on the tops of packing cases, because if the castors of the bedstead were left upon the planking of the floor they would go through, so rotten are the planks."

Latest Information

"Birmingham Corporation has sounded the Ministry of Health on its chances of getting Government sanction for a loan to build 1,000 houses a year. It has received a strong hint that no such permission will be forthcoming."—*Daily Herald,* 16th May, 1933.

BIRMINGHAM

SHEFFIELD

GENERAL POSITION.

Area		34,151 acres	
Population	1921	511,696	
	1931	511,757	(55,000 unemployed)

Decennial increase 61

(1921 population of areas added in intercensal decade 21,057)

1931	Persons per acre	15·0
	Number of private families	129,396
	Population in private families	496,205
	Structurally separate dwellings occupied	123,812
	(vacant	1,074)
	Rooms occupied	573,265
	Persons per room	0·87
1921-31	Increase in occupied dwellings—	not comparable
	Increase in number of private families—	not comparable

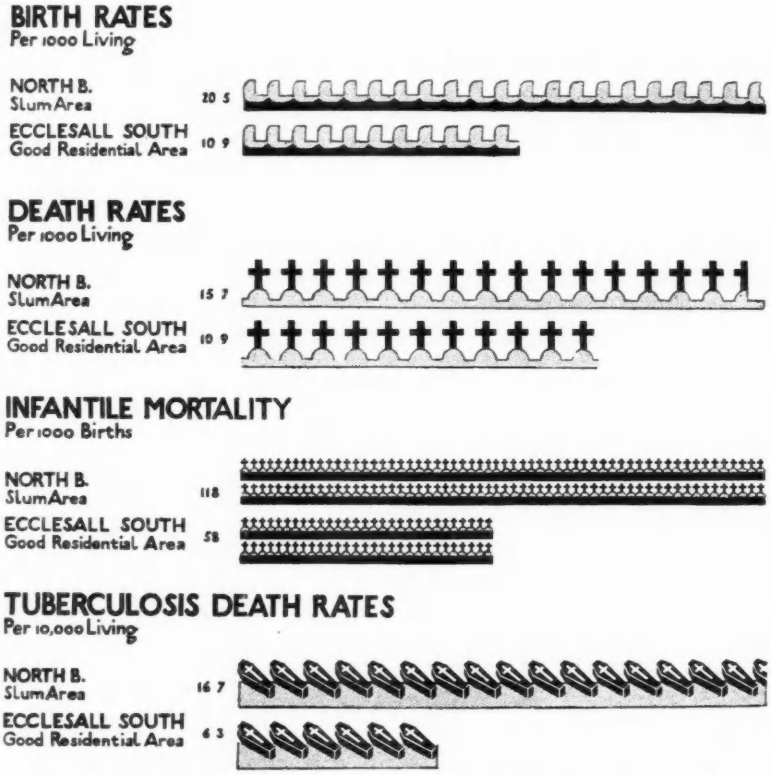
Families per occupied dwelling	1931	1·04
Average size of private family	1931	3·84
Average number of persons per room	1931	0·87
Persons living more than 2 per room	1921	Not comparable
	1931	40,908 or 8·24%
(Families living more than 2 per room	1931	5,836 or 4·51%)

1931	Persons living over 3 per room	7,679
	3 and over 2	33,229
	Total over 2	40,908
	2 and over 1½	65,406
	Total over 1½	106,314
	1½ and over 1	101,048

66 families living 6 or more in 1 room

185 families living 8 or more in 2 rooms

SHEFFIELD STATISTICS



Like the chart referring to Manchester, reproduced on the fly-sheet of this issue, returns of Sheffield's public health, taken over the five years, 1926-1930, show a one-third reduction in general mortality in good residential areas as against slums; and, again, the infantile mortality is halved. The birth-rate is halved, and there is a striking drop in deaths from tuberculosis—to little more than one-third.

The following particulars of a house let in lodgings in Sheffield are characteristic of many houses of this type in the city :—

An old public-house converted, now in a very dilapidated state ; doors, windows and stairs broken or defective ; whole house bug-infested ; oil lamps throughout ; stairs dangerous and unlighted.

Sanitary conveniences : three water-closets in backyard, ash-pit under living-room at the back.

A typical room : first floor, front, fairly large room overlooking the street. No floor covering ; large hole in floor ; stove. Furniture : two bug-ridden beds, a baby's cot, rough table, broken sofa and chest of drawers. The family (husband, wife and five children) have also the use of a scullery-kitchen on the ground floor in which there is a kitchen range, boiler and sink, couch (with no bottom), old table and three chairs (without bottoms). Rent ("furnished") 10s. 6d. a week.

—*From* A REPORT ON THE HOUSING PROBLEM IN SHEFFIELD

The Wards

Number of Wards in city	24
Number of wards containing over all average of over 100 persons per acre	1
Number of wards containing over all average of over 80 persons per acre	3
Number of wards containing over all average of over 1 person per room	6

Three Worst Wards on Persons Per Acre Standard

	Moor	St. Phillip's	Sharrow
Acreage	238	214	283
Population 1921 ..	24,455	27,580	26,531
,, 1931 ..	21,102	22,970	23,246
Persons per acre ..	88·7	107·3	82·1
Private families ..	5,243	5,266	6,287
Population in private families ..	20,413	21,510	22,876
Structurally separate dwellings occupied ..	5,065	4,939	6,015
Rooms occupied ..	19,632	17,777	28,286
Persons per room ..	1·04	1·21	0·81

Three Worst Wards on Persons Per Room Standard

	Manor	St. Peter's	St. Phillip's
Acreage	1,401	260	(as above)
Population 1921 ..	4,693	21,765	
,, 1931 ..	22,699	18,802	
Persons per acre ..	16·2	72·3	
Private families ..	5,238	4,298	
Population in private families ..	22,522	16,908	
Structurally separate dwellings occupied ..	4,904	4,161	
Rooms occupied ..	21,228	15,421	
Persons per room ..	1·06	1·10	

Construction of Houses since the War

Houses erected 1919 to June 30, 1932	21,453
by private enterprise	7,711
by Council	13,742
(425 sold or being sold)	
Houses demolished for specific slum clearance purposes over same period	866

Slum Clearance Work

Between 1919 and the adoption of the Five-Year Plan under the 1930 Act, 6 slum clearance schemes, involving 5 acres of the worst slums in England, containing 485 houses, have been brought to completion. The density of houses in one area was 94 per acre.

The mean rental of houses in these areas was a little under 7s.

Sheffield still needs 500 to 1,000 houses to rehouse those living in one-room tenements of the foulest type, and in huts and caravans.

The Wyburn Estate

All slum dwellers are rehoused on the Wyburn Estate.

The rents are 9s. 1d. for a two-bedroomed house and 10s. 6d. for a three-bedroomed house.

Investigation by the Sheffield Social Survey Committee shows many tenants unable to afford these rents. They either return to an area slightly less slum-like than the one in which they formerly lived, or they are unable to have enough food. Wages in the cutlery trade are very poor.

Reaction of Tenants to new Environment

Only 16 per cent. unfavourable.

Back-to-Backs

Sheffield has about 15,000 back-to-backs. They are all 70 years old. The town forbade the building of any more in 1864.

There are more than 4,000 courts. How many houses this represents there is no evidence to show. Many of the court houses have as their floor either earth or large stone squares.

General Notes

A characteristic of Sheffield is the number of workshops mixed up with residential dwellings. Often the two are to be found in the same courtyard.

There are a good number of houses built back on to factories and workshops.

Five-Year Programme under 1930 Act

Houses to be erected, per year	500
Individual demolitions, per year	60
Clearance area houses to be demolished, per year	440

(No provision for making Improvement Orders under this Act.)

During 1931 the Five-Year Programme was kept up, so far as recommendations for clearance were made.

The City has been greatly handicapped by the slowness of obtaining departmental confirmations.

Sheffield has been working by means of small clearances. All over the central parts of the city are areas of 4 to 20 houses condemned.

Besides this the Corporation makes considerable use of the other powers given it by the 1930 Act. In 1931 nearly 21,000 defective dwelling houses were made fit by their owners after informal action, and over 2,000 more after notices had been served. 206 individual demolition orders were made.

●

CONCLUSION

7,679 people living over 3 per room (assume average 4) have less than 2,000 rooms. They should have over 5,000, and therefore require well over 3,000 more.

33,229 people living 3 and over 2 per room (assume average 2½) have 13,300 rooms. They should have 22,150, and therefore require nearly 9,000 more.

65,406 people living 2 and over 1½ per room (assume average 1¾) have 37,500 rooms. They should have 43,500, and therefore require 6,000 more.

The minimum and maximum figures, following the usual rule, are, then, 18,000+25 per cent., i.e., 22,500, and 71,000+25 per cent., i.e., 90,000.

If the geometric mean rule was followed, we should conclude that Sheffield required something like 12,000 houses.

This figure takes no account of the fact that 15,000 back-to-backs still exist.

In fact it only allows some 6,000 as the total number of unfit houses, since 6,000 would be required to abate overcrowding. 6,000 is perhaps about the correct figure of unfit property other than back-to-backs.

Every back-to-back in Sheffield may be taken to be unfit to live in.

On this perfectly safe assumption we can say that Sheffield needs about 27,000 houses.

GLASGOW

GENERAL POSITION

Area		28,694 acres	
Population	1921	1,034,174	
	1931	1,088,461	(130,000 unemployed)

Decennial increase in population 54,287

(1921 population of areas added in intercensal decade 17,353)

Decennial increase in occupied dwellings 28,242

1931	Persons per acre	37·9
	Population in private families	1,053,258
	Structurally separate dwellings occupied	256,171
	Average size of occupied dwellings	2·68 rooms
	Persons per room	1·54
1921	Population in private families	1,012,955
	Structurally separate dwellings occupied	227,929
	Persons per room	1·76
	Average size of occupied dwellings	2·52 rooms

1931	Persons living more than 4 per room	79,267	or	7·5%
	Persons living 4 and over 3 per room	120,347	or	11·4%
	Persons living 3 and over 2 per room	246,205	or	23·4%
	Total over 2 therefore	445,819	or	42·3%

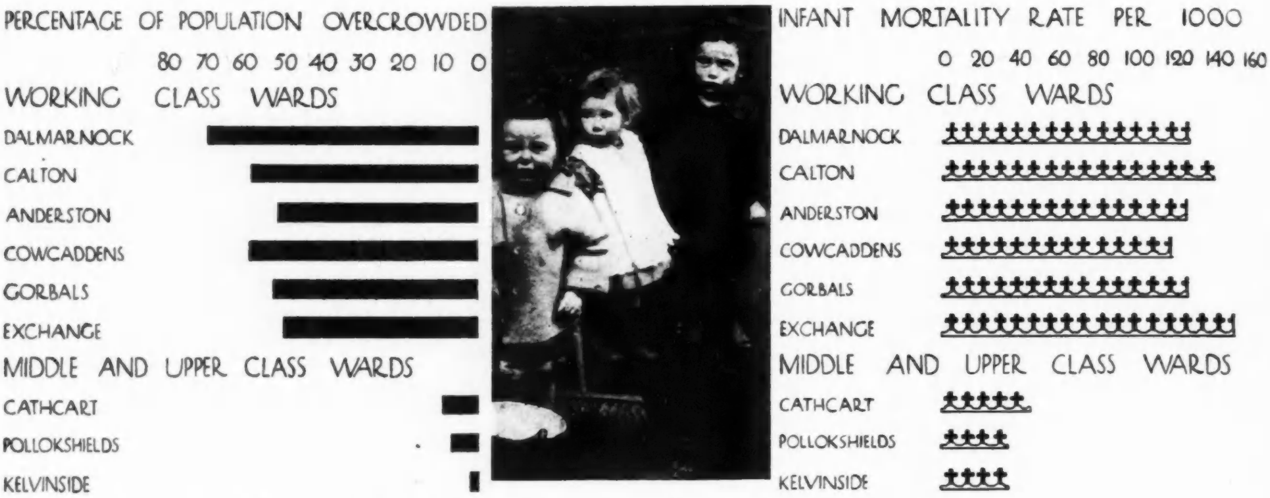
The One- and Two-Roomed Houses

115,490 people (11·0%) live in one-roomed houses which number 37,230 (14·5% of all houses)

467,725 people (44·4%) live in two-roomed houses which number 111,727 (43·6% of all houses)

3,498 families living 6 or more in one room
685 with 8 or more in 1
83 with 10 or more in 1

7,947 families living 8 or more in two rooms
1,621 with 10 or more in 2
186 with 12 or more in 2



The charts show the conditions of overcrowding and infant mortality in Glasgow in 1931.

The Wards

Number of wards in city	37
Number of wards containing over all average of over 1 person per room	31
Number of wards containing over all average of over 1½ persons per room	23
Number of wards containing over all average of over 2 persons per room	7

(i.e., there are only 6 wards with an over-all average less than 1 person per room, viz., Park, Kelvinside, Pollokshields, Camphill, Langside and Cathcart.)

Seven wards rejoice in an over-all average of over 2 persons per room.

Details of these Seven

	Dalmarnock	Mile End	Hutchesontown
Population in private houses ..	35,816	21,380	38,813
Living over 4 per room	6,939 (19·4%)	3,615 (16·9%)	5,070 (13·1%)
Living over 2 per room	24,812 (69·3%)	14,257 (66·7%)	24,777 (63·8%)
Structurally separate dwellings occupied ..	8,475	5,119	9,511
1 room ..	3,176	1,847	3,095
2 rooms ..	4,683	2,782	5,511
Persons per room..	2·47	2·38	2·29

	Cowcaddens	Parkhead	Calton	Govan
Population in private houses ..	34,922	38,022	32,302	35,561
Living over 4 per room	3,437 (9·8%)	3,576 (9·4%)	3,980 (12·3%)	4,436 (12·5%)
Living over 2 per room	20,533 (58·8%)	21,390 (56·3%)	18,882 (58·4%)	20,966 (59·0%)
Structurally separate dwellings occupied	8,307	8,855	7,660	7,840
1 room ..	1,842	1,778	2,138	1,284
2 rooms ..	4,878	5,110	3,721	4,468
Persons per room ..	2·09	2·07	2·04	2·01

Over 1½ per room seems a reasonable standard of overcrowding to take, though any arbitrary arithmetical standard is unsatisfactory.

GLASGOW

Scotland's contribution to civilization: the single-room back-to-back house. There are over fifty of such dwellings in this street alone.

Slums at Florence St., Glasgow, showing conveniences and wash-houses in the yard.

Over 2 is in general use in England.

In Glasgow over 3 is the standard, and on this dreadful standard 200,000 people are overcrowded.

On the Registrar General's Standard 450,000 are overcrowded.

On the standard which has been taken for the English towns in this enquiry, over 1½, it would appear likely that about 700,000 (70%) of the people, were overcrowded.

Details of overcrowding are given in the Census for Scotland as shown above, so that this figure could not be obtained without some labour, and would still be inexact owing to families of 15 and more, and houses of 10 or more rooms not being separately shown.

Number of Unfit Houses

At the end of 1930 approximately 13,500 houses, i.e., separate dwellings, in Glasgow, were officially regarded as unfit for human habitation, and in the great majority of these it is considered that no reasonable expense could make them fit in all respects for habitation.

Council Programme

To build 7,500 in the three-year period 1931-33 in respect of houses unfit for habitation, and also, 9,000 to abate overcrowding, and 3,000 to meet growth of population.

General Conditions

Worse than anything in England, the worst slum city in Great Britain. Many dwellings are simply a kitchen—the adults sleep on a bed placed in a hole in the wall and the children sleep on the floor. Average number of persons per house in the whole city, 4·11, compared with 4·44 in 1921, 600,000 living either in one room or two. Some do their best, but many others are "stabled in filth and degradation . . . bogged in a morass of filth and foul living— . . . perhaps their reason tells them there is no good in trying to do anything about it."—H. V. Morton in *The Daily Herald.*

Corporation Active

Howard Marshall remarks :

"I saw many clearance areas and re-housing schemes, and there is no doubt that the Glasgow Corporation are uncommonly active. It is, however, in no sense a criticism of their endeavours to say that at the present rate of progress the solution of their difficulties is by no means yet in sight."

This view is generally supported.

The Corporation takes care to build houses before clearing areas elsewhere.

In 1921 19% of the houses consisted of 3 rooms, in 1931 24%.

Since 1919 the Corporation of Glasgow has had 30,000 houses built.

This is not enough—they now want 100,000 —no municipality can hope to undertake such a task.

The Annual Report of the Medical Officer of Health for the City contains the following significant sentences :—

> " The whole question thus crystalizes down into the provision of alternative accommodation for tenants of insanitary houses. The declared policy of the Committee to undertake the building of 7,500 houses for this purpose would, when completed, bring the problem into manageable proportions. The standard of what constitutes a house unfit for human habitation is rising, and a considerable number of houses become unfit by the process of time in each year. It will therefore be necessary for a fresh survey to be made when the Corporation's three-year programme is completed to enable the Committee on Housing to consider its policy again."

Number of Individual Houses condemned

From 1924 to the end of 1932 1,640 individual houses were represented for closure and demolition.

Number of Improvement Areas and Clearance Areas

Since 1923 the Corporation and the Department of Health for Scotland have approved of 7 slum clearance schemes, involving 6,575 houses.

Number of Houses built in connection with Slum Clearances

At February 28, 6,258 houses were occupied by families dispossessed from Slum Clearance schemes, and 2,534 additional houses are being built.

Rent of New Houses

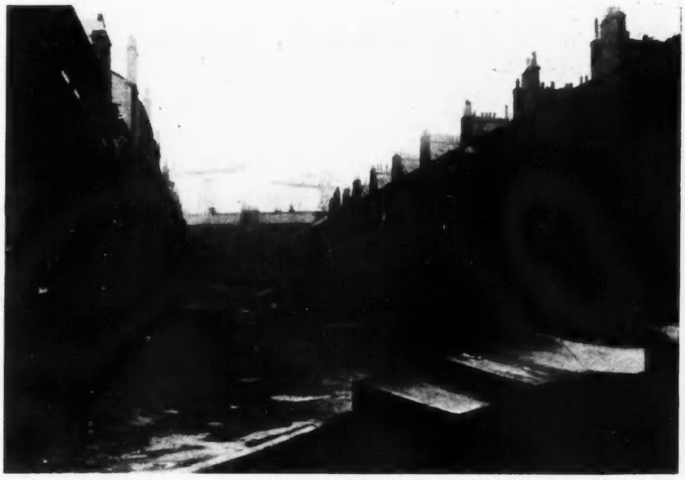
2 apartments	28s.–34s.	month	=6s. 6d.–7s. 10d	per week
3 ,,	32s.–38s.	,,	=7s. 5d.–8s. 9d.	,, ,,
4 ,,	38s.	,,	=8s. 9d.	,, ,,

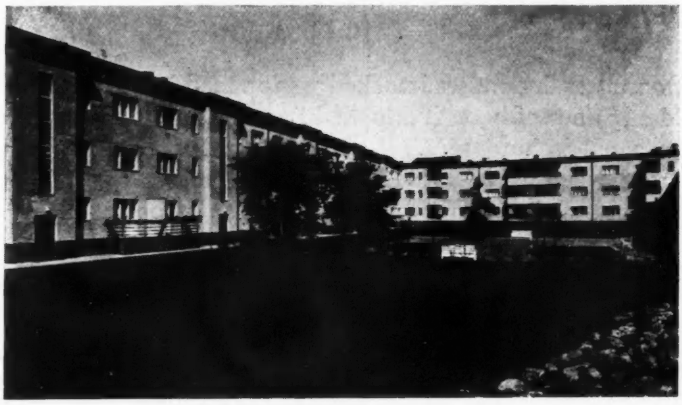
Rents of demolished Houses

The detailed print of the Calton Improvement Scheme was made available to me for the purposes of this investigation. It shows that the scheme embraces 1,311 dwellings.

611	one-apartment dwellings
636	two-apartment ,,
61	three-apartment ,,
3	four-apartment ,,

HUMAN WASTE V.





HUMAN SPACE

The difference in latitude between Glasgow and Berlin is not considerable, the one being wetter and the other colder in winter. Still that does not seem quite a good enough explanation of the difference between the " courts " of their respective " working-class quarters " ; or of the fact that the terrible " backlands " of Glasgow contain not lawns, trees, paddling-pools and rock-gardens, but only so-called " privvies " and a carpet of stinking slag-like earth. Yet thousands of children have no other playground.

The total annual rents paid amount to just under £15,600, of which over £4,000 is for business premises.

The business premises are not included in the total of " houses," which is 1,311 (127 of which are habitable and 1,184 uninhabitable).

Total amount of rent paid for " houses " is £11,443 5s. p.a.

Average rent paid for a " house " is therefore £8 14s. 7d. per year, or 3s. 4½d. per week.

Total number of separate apartments is 2,078. Average rent per room is therefore £5 10s. 1½d. per year or 2s. 1½d. per week.

Average number of rooms per dwelling is 1·58.

Since the number of two-room dwellings is slightly greater than the number of one-room dwellings, (the number of dwellings of more than two rooms being about 10% of the number in either of the former categories), and since the rent paid per dwelling is only a little more than 1½ times the rent per room, we can see that neither of the figures arrived at enable us to determine exactly the average rent paid either by people living in two rooms or one.

A 5% random sample was therefore taken.

The following table shows the results :—

	Lower Quartile	Median	Upper Quartile
One-room dwellings	2s. 5d.	2s. 8d.	3s. 7d.
Two-room dwellings	3s. 4d.	3s. 8d.	4s. 3d.

The sample enquiry is adequate for the purposes to which it is to be put. In both

It is obvious that, although operations under slum clearance schemes are removing many of the worst examples, there exists a very large number of dwelling-houses in the city provided with water-closets in common. This is illustrated in the following table :—

	No. of Water-closets	No. of Houses involved	Estimated No. of persons involved (taking four persons per house)
Water-closets serving 2 tenants* ..	5,971	11,942	47,768
,, ,, 3 ,, ..	18,502	55,506	222,024
,, ,, 4 ,, ..	7,673	30,692	122,768
,, ,, 5 ,, ..	1,820	10,000	40,000

* Household.

From REPORT OF MEDICAL OFFICER OF HEALTH, GLASGOW, 1930

(*This information is not given in the report of the M.O.H. for 1931, the last issued.*)

Door after door as we knocked was opened by a shirted man, suddenly and softly, as if impelled forward by the overpowering slum smell behind him. It is this smell which is the most oppressive symbol of such lives : choking, nauseating ; the smell of corrupt sweat, and unnamed filthiness of body. The universal " jaw box " is the only defence of these people, deserted by the sun, against such miseries ; it is never more than a couple of feet square, and its use must be unhandy and uncomfortable. Everywhere unimaginable beds, dirty floors, with dark heaped shadows in the corners that the broom had left, scraps of polished brass ; and that smell. Sometimes it crept out at us past the legs of the householder, insinuatingly, as if ashamed ; sometimes it brazened it out, full and pestiferous ; once, in a woman's shilling boarding-house, it leapt out and took us by the throat like an evil beast : the smell of the slums, the unforgettable abominable smell. Henceforth when asked, " What deepest misery may overcrowding such as this mean ? What ultimate torment is reserved for humanity deprived of air, light, food, money, space ? " I must answer—" The slum smell."

From THE CANCER OF EMPIRE, BY WILLIAM BOLITHO

cases the difference between the median and the lower quartile is much less than between the median and the upper quartile, i.e., there are a great number of rents just below the median, while above it the rents vary more. The highest rent paid for one room was 4s. ; for two 5s. The average in each case will be somewhat above the median.

Overcrowding (Calton area)

For the Calton improvement area the following are the figures :

Acreage	Population to be displaced	No. of houses to be demolished
12.32	3,677 adults + 1,474 children = 5,151 total.	611 one-apartment houses, 636 two-,61 three-; 3 four- = 1,311 total. Total no. of rooms : 2,078.

The population is therefore living, on average, a fraction less than 2½ persons to the room, nearly 4 persons to the dwelling, over 400 per acre. 55 " houses " are occupied by more than one family—it is not stated how many of these are one-room dwellings, but examination of the separate figures given for each dwelling shows a small number of cases of this—probably less than ten in all.

Examination of one-family one-room dwellings shows one case of 10 to a room, 4 of 8 ; and examination of one-family two-room dwellings shows one of 12 to two rooms, 3 of 11, 13 of 10. 6 to one room and 8 to two rooms are very common.

There is not much variation in the figures of *average* density per room as between the different sub-areas in the scheme. In the areas in which the density per dwelling is highest, it must be noted that the proportion of one-room dwellings is lowest.

Reaction of Re-housed Tenants to New Conditions

It appears from the Annual Report of the Medical Officer of Health for the City that a full inspection system of houses in re-housing schemes is carried out—every three months for the clean houses and every month for the others. The Report states that of the 5,556 houses of the type in occupation at the end of 1931 71·1% were clean, 26·5% fair and 2·4% dirty, and concludes—" The high standard of house occupancy which these figures indicate is very satisfactory, having regard to the conditions under which the families had been living previously."

Effect of Re-housing on Children

Reports from headmasters in the schools situated in areas containing a large number of children born in slums and now re-housed :—

" The pupils from the re-housing schemes are becoming less easily distinguishable from those outside the schemes . . . what little difference exists mainly among the older pupils."

" In cleanliness, nutrition and clothing these children compare very favourably with the others."

Infantile Mortality

In 12 wards in Glasgow over 50 per cent. of the population is overcrowded on the over-two-per-room standard. The average infantile mortality rate for these was 116 per thousand in 1931.

In 5 wards less than 10 per cent. are overcrowded on this standard. In these the average infantile mortality rate was 54 per thousand.

The following table shows examples of these wards, infantile mortality figures having been put side-by-side with overcrowding figures.

	Rooms per house	Percentage of population overcrowded (over 2 per room)	Infantile Mortality Rate
Dalmarnock ..	1·71	69·3	127
Calton ..	2·07	58·4	140
Anderston ..	2·26	51·6	126
Kelvinside ..	6·01	1·8	34
Pollokshields	4·83	7·0	34
Cathcart ..	4·20	9·0	46

Other working class wards infantile mortality rates are :—

Exchange	..	150
Townhead	..	129
Govan ..	..	127

Pneumonia

Death rate, 2,494 per million in Exchange (many lodging houses).

Phthisis

Death rate 865 per million in City.

1,497 in Exchange.
1,389 in Calton.
1,184 in Hutchesontown.
1,129 in Parkhead.
1,107 in Shettleston.
1,107 in Tollcross.
135 in Kelvinside.
331 in Pollokshields.
344 in Cathcart.

Bronchitis

Death rate 926 per million in Exchange.

All Respiratory Diseases

Death rate round 2,000 per million in Mile End, Dalmarnock, Cowcaddens, Hutchesontown, Gorbals, etc.; 400-600 in good residential areas such as Pollokshields, Camphill and Cathcart.

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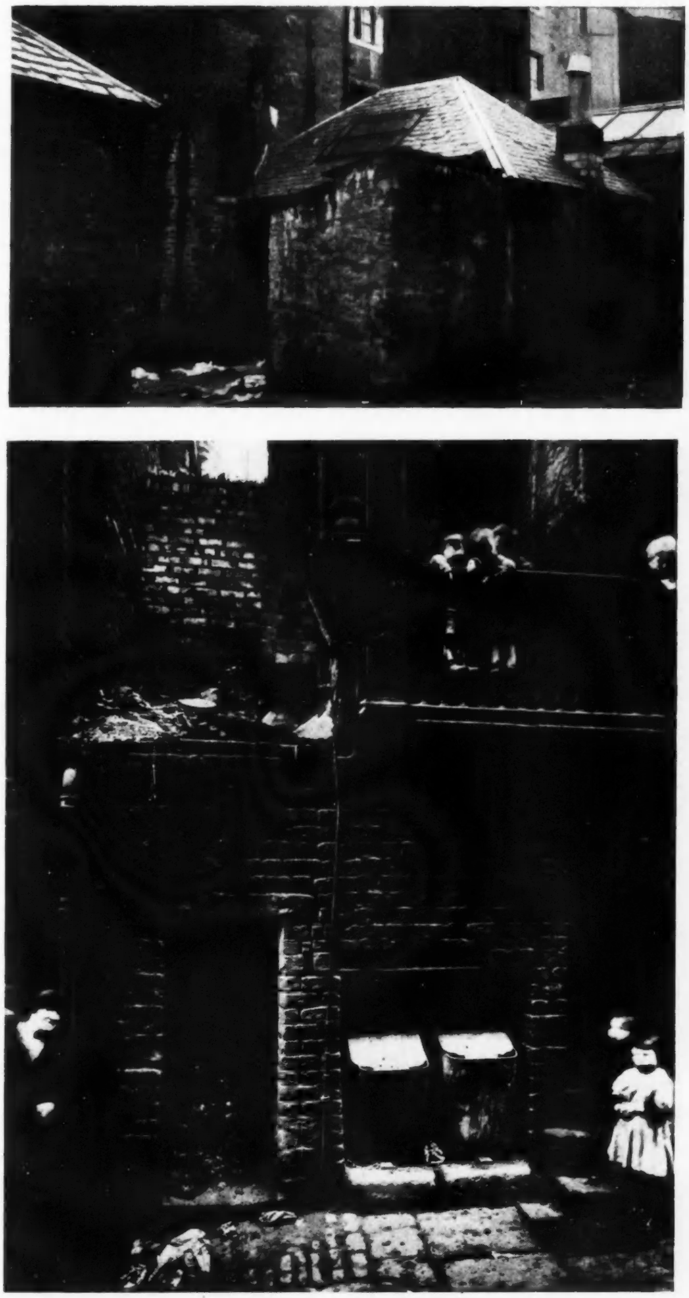
INGENUITY IN RUBBISH DISPOSAL



Methods of refuse disposal often become grotesqueries in horror. The upper photograph was taken in Glasgow just after old newspapers, dish-water and contents of bed-pans had been swept down the staircase of a house and left in the yard. The lower shows Liverpool dust-bins, standing in open recesses, where second-, first- and ground-floor tenants tip their refuse.

CONCLUSION

The picture presented by Glasgow, in terms of overcrowding, is four times as bad as that of Liverpool, England's "high spot" for slums.

In the face of these figures, the plan for Glasgow, and for the two other Scottish cities, is based on a "not more than 2 per room" basis, in place of a "not more than 1½." The cases of acute discomfort left untouched by such a plan will be legion, but the plan involved is yet greater than that for any of the provincial cities of England.

There are 79,267 people living over 4 per room. Assuming an average of 5, they have 16,000 rooms; they should have 40,000. They therefore need another 24,000.

There are 120,347 people living at 4 and over 3 (assume average 3½). They have less than 35,000 rooms, in place of 60,000. They need another 25,000.

There are 246,205 people living at 3 and over 2 (assume average 2½). They have less than 100,000 rooms, and should have 123,000. They need nearly 25,000 more.

Our minimum and maximum figures are therefore, say, 73,000 and 223,000 Raised by 25 per cent. to allow for the impossibility of housing all these people at precisely 2 per room—90,000 and 280,000.

We reach, therefore, a conclusion that

25,000 houses are required merely in order to house Glasgow so that no one shall have to live at over 2 per room. This would still leave every filthy dwelling untouched, and 13,500 have been *officially* declared unfit.

In the case of the English towns, the method has been followed of taking the geometric mean of these figures as a rough basis of measuring the real needs of the respective cities. The difference between the geometric mean and the minimum is thus taken as an index to the number of houses unfit for habitation, whether the houses concerned are overcrowded or not. This rough guide has then been adjusted, where possible, on the basis of evidence as to the degree of "insanitariness" in each particular town, where the evidence for this is adequate.

In the case of the Scottish towns we cannot use the geometric mean and the minimum when these are based on a two-per-room basis. We should, for comparability so far as replacement of insanitary dwellings is concerned, add to the figure of 25,000 the number of unfit houses deduced from using the formula on a 1½-per-room basis. This cannot be given exactly, but may be estimated at 30,000. So the needs of Glasgow, to abate overcrowding at over 2 per room and to replace the 30,000 insanitary dwellings arrived at by using the method of the "formula," amount to 55,000 houses.

If a "1½" standard were adopted for the relief of overcrowding, we should get a figure of about 85,000. And at the same time our houses would have to be bigger—many would have to be about double the size of the City average of 2¾ rooms per house. (The figure of 100,000 has been arrived at by others as a rough measure of the real needs of the City.)

Three figures have then been achieved —the first is fairly exact, the others are not exaggerated.

1. 38,500 houses are required to abate overcrowding at over 2 per room and replace the 13,000 officially condemned houses.
2. Some 55,000 houses are required to abate overcrowding at over 2 per room and replace all uninhabitable houses.
3. About 85,000 houses would be required to abate overcrowding at over 1½ per room and replace all uninhabitable houses—the basis used for English cities.

GLASGOW

SUMMARY

●

(NOTE.—Exact figures are still shown, to facilitate referring back.)

The foregoing analysis of the largest six of the provincial cities may now be summarized briefly.

LIVERPOOL has a population of 855,688.
20,515 people live at over 3 per room.
215,965 people live at over 1½ per room.
50,000 rooms are required merely to abate overcrowding at over 1½ per room.
20,000 houses may be taken as the immediate and urgent requirements of the City. This figure makes no provision for the demolition of back-to-backs, about which information is lacking, and is based on overcrowding figures as adjusted by the general rule described in the Introduction. *The "conservative" results obtained by the use of the formula are well illustrated by the far higher figures obtained for total housing needs in the case of the cities about which we know more.*

LEEDS has a population of 482,809.
7,498 people live at over 3 per room.
97,507 people live at over 1½ per room.
22,000 rooms are required merely to abate overcrowding at over 1½ per room.
70,000 houses would be required to replace all the pre-1890 back-to-backs and 10,000 of the pre-1872 non-back-to-backs.

MANCHESTER has a population of 766,378.
8,864 people live at over 3 per room.
138,162 people live at over 1½ per room.
30,000 rooms are required merely to abate overcrowding at over 1½ per room.
30,000 houses would be required to abate this overcrowding and to replace 23,000 of the insanitary dwellings in the City—it having been assumed that 7,000 of them could be "reconditioned" or otherwise rendered habitable.

BIRMINGHAM has a population of 1,002,603.
11,455 people live at over 3 per room.
180,746 people live at over 1½ per room.
37,500 rooms are required merely to abate overcrowding at over 1½ per room.
50,000 houses would be required in order to abate this overcrowding and replace the 40,000 back-to-backs. This does not allow for the existence of insanitary houses other than back-to-backs.

SHEFFIELD has a population of 511,757.
7,679 people live at over 3 per room.
106,314 people live at over 1½ per room.
22,500 rooms are required merely to abate overcrowding at over 1½ per room.

27,000 *houses* are required to abate this overcrowding, and to replace the 15,000 back-to-backs still existing, which are all over 70 years old, on the assumption that there are 6,000 insanitary houses other than back-to-backs. (Since there are 4,000 courts in Sheffield this assumption cannot be too high.)

The figures for Leeds, Manchester, Birmingham and Sheffield show conclusively that the estimate for the housing needs of Liverpool was utterly inadequate. The figure of 20,000 is that produced by the operation of the "formula."

In the case of the other four cities the number of houses needed altogether is in no case less than the number of rooms needed to abate overcrowding. It would not appear dangerous to estimate that Liverpool needs as many houses altogether as she needs rooms to abate overcrowding. If this assumption were made, the figure of 20,000 given above would become 50,000.

GLASGOW has a population of 1,088,461.
199,614 people live over 3 per room.
455,819 people live over **2** per room.
90,000 rooms are needed to abate overcrowding at over **2** per room.
38,500 *houses* are needed to abate this overcrowding and replace the 13,500 officially-condemned houses.

This figure has been shown to be far too low, both as regards overcrowding (because a "2" standard is taken in place of a "1½") and because the number officially condemned quite obviously represents only what the City now regards as a practical plan and bears no relation to the real number of insanitary dwellings. To build 55,000 houses may not, under present conditions, seem to be a practical plan—it undoubtedly represents much less than the true housing needs of the City. It provides for the abatement of overcrowding on the not-more-than-2-per-room basis, instead of the not-more-than-1½ adopted as a basis for the English towns. On the English basis the figure would be about 85,000. There are, after all, 55,000 dwellings in the seven selected Wards, about three-quarters being of one or two rooms, and these house a quarter of a million people. They require wholesale clearance. This shows that our figure is still inadequate.

Even taking figures which we know to be less than half the correct ones for the worst two cities—Liverpool and Glasgow—we arrive at the following totals :

4,707,696 people
255,625 living over 3 per room.
1,184,513 living over 1½ per room (over 2 in the case of Glasgow).
252,000 rooms required to abate overcrowding at over 1½ per room (over 2 in the case of Glasgow).
235,500 *houses required* (overcrowding only reduced to 2 in the case of Glasgow).

If we increase the final figure for Liverpool to 50,000, by assuming that, like the other great English cities, she needs altogether as many houses as she needs rooms on the overcrowding basis, and increase the final figure for Glasgow to 55,000 (to make an allowance for insanitary houses on the principles of the "formula"), we arrive at

282,000 houses

as the total needs of the six cities,

and our figures for Glasgow and Liverpool are certainly many thousands below the true ones even now.

This figure represents immediate requirements.

If it is to be envisaged as a building plan to be spread over a period of

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[Acknowledgment is hereby made of the courtesy of the following in respect of various illustrations reproduced in this issue : "The Daily Herald"; Benoit Levy; The St. Pancras House Improvement Society, Ltd. ; The New Homes for Old Exhibition
—ED., *A.J.*]

years, adjustment must be made for population increase—or rather for the increase in the number of families.

In the intercensal decade 1921-31 the number of families in Liverpool, Birmingham and Manchester increased by 100,000. Comparable figures for the other cities are not available. It is probable that the rate of increase was less. Ignoring it altogether, 10,000 houses a year are wanted for new families if the present tendency continues—merely in the three cities named above—in order that each new family shall have a "structurally separate dwelling."

It is not proposed, however, to calculate on such a basis in the case of the other cities, but only to show minimum housing needs *at present.* We may, therefore, conclude that

the largest six provincial cities, which have a total population of
over 4,700,000,
require
over 280,000 houses
NOW.

THE ARCHITECT'S PROBLEM

[BY E. MAXWELL FRY]

> *I would advocate where it is possible the treatment of sites or slum clearances rather as big units than as small ones. Instead of demolishing one side of the street and building new houses, demolish four or five streets and build a huge block.*—THE PRINCE OF WALES.

Dwellings for the Very Poor

THE approach to slum clearance is by way of sociology, conditioned by poverty. The literature on the subject abounds with references to "slum areas," "slum houses," and so on, as though the act of rebuilding was in itself a cure. *But slum dwellings are merely the houses of the very poor, in which is waged an unending struggle between difficult ways and too little means.* Slum clearance is a sociological problem, but only as housing of any kind is a sociological problem, slum clearance work being more narrowly conditioned by questions of finance. Inherently the design of block dwellings must engage exactly the same faculties as are called to the planning of a normal house but in a degree of concentration which has hitherto been lacking. Poverty is relative. A family earning a given number of shillings per week can live in what are known as "slum conditions" without feeling the sharp edge of poverty. Removed to model dwellings, this same family income is insufficient to prevent starvation among the members of that family, and Dr. G. C. M. M'Gonigle's (M.O.H., Stockton-on-Tees) report on two communities, one of which, when his observations commenced, had been taken from slum conditions and lodged in model dwellings removed from the centre of the town, proved conclusively that an increase of 4s. 6d. in rent *was enough to raise the death rate 50 per cent.* and bring with it starvation, disease and suffering. The situation is as desperate as that. Slum clearance is not enough: dwellings are not "model" unless *the rent is within the means of the tenant.*

The Terms of the Problem

The problem of building dwellings for the very lowest stratas of society is nearly limitless in extent, and its solution is bound up with the course of town planning, and the organization of the building industry, vertically and horizontally, including the practice of architecture. It is three-headed: RENT, CONSTRUCTION, LAND: and of these three, rent alone is fixed; the solution must lie in terms of construction and land. Construction is the architects' problem, and one says *construction* advisedly because the lowering of the costs of slum clearance lies first in the cost of building, which is too high. And secondly, since, as it appears that reduction in the cost of building will flow from the engagement of larger units of lay-out, then it is the architect, and the architect alone, who has the power to point the way to economy, stating his case in terms of construction, but carrying it very quickly into terms of land and the operation of Acts and legal procedure created in order to facilitate the purchase of land for the purpose of slum clearance.

Blind Standardization

We have to turn to industry for the means of cheapening the cost of building. Industry replies with mass-production, standardization and skilled management. These are three powerful means to an end. None of them is new, and the efficiency of all three depends upon our power to vitalize their energies towards good ends. If we examine block dwellings put up by the L.C.C. and by other bodies within recent years, we find that what is known as the "normal character" of block-dwelling design is in fact a standardization of *external* features, cast usually in a Georgian mould. These features, which have become the standardized units, are expensive ones: sash-framed windows, high pitched tiled roofs, monumental chimneys, purely decorative wrought-iron railings, stone pediments, cornices and so on. The arrangement of these external features obey dead laws of a stylistic architecture *but they fix window openings*, and they add to every block not only the resulting difficulties of internal planning, but a heavy and needless expense, *every penny of which is charged to the rent of tenants.* Each block is put up in a blind faith that the only decency is Georgian, and in a block erected quite recently the only answer to this cry for cheaper accommodation was to lower the standard of internal finishes. Surely, slum clearance is not enough.

Standardization from the Inside—Outwards

The nineteenth century presented us with two out of many materials, the very nature of which calls for a fine order of planning. These are steel and concrete. The inherent economy of these materials lies in the regular disposition of the structural members; and granted this regularity, economies result automatically. But the way to economy is by the standardization of units, a standardization proceeding from within outwards. Few problems are more susceptible to a process of fine standardization than the design of block dwellings. The family units are small and of nearly equal size.

Bathrooms and kitchens can be standardized completely over a wide range of building. A repetition of standard parts is the material of grand design, and not the deterrent so much feared by architects fettered to what is called "tradition," where irregularities of planning, and a pre-conceived notion of window-spacing, condition internal planning.

The study of kitchen lay-out from the housewives' point of view as a place in which to work with economy of effort and money cannot, in buildings designed to a fixed Georgian pattern, or to the even more rigid and less logical patterning of recent Westminster housing, be given the care and skill required to make a small room efficient, so that all too frequently one finds sinks jammed up into corners, baths in kitchens, gas cookers placed away from the light, the light itself wrongly disposed and inadequate, dressers too small and badly conceived, and so on. Even the speculative builder realizes that the kitchen is the workshop of the house, and the bathroom its pride and joy. It is nearly true to say that without standardization, the "minimum" kitchen* and the "minimum" bathroom are impossible. But with standardization as the basis of design, the architect is forced to bestow upon the one kitchen plan which he is going to repeat 100 times at least twenty times the amount of care which he can afford for any one of his 100 incidental kitchens. And similarly with the other rooms of the house.

The Economies of Standardization

But, arising out of the same problem, through the standardization of rooms and parts of buildings, flow other and hardly less important economies. For once the qualities peculiar to these materials are rigorously observed; fenestration, chimney design and many other vital and expensive elements of construction assume new forms and become larger and different units, which, constructional in the first place, are very quickly transferred to the plane of design and æsthetics.

The largest single item in building is labour; and labour can take place on or about the building in course of erection, when its motions are loosely directed in surroundings unfitted to accurate work; or in a factory where every action is studied, performed in large measure by machinery, and costed to the penny. The factory-produced article is always cheaper, and, as the Americans proved in the tool-making industry, incredibly more accurate.

Therefore, two things spring from this. First, that the more labours that can be performed under conditions of factory organization, the cheaper will the work become; and secondly, that it is not possible to make use of the economies of factory production until design itself adopts a high measure of standardization.

The Organization of a Time and Progress Schedule

From this a new difficulty: namely, that neither standardization nor mass production can be successfully pursued without a fitting organization in the conduct of the work, both upon the architect's and upon the builder's side. The direction of organization must naturally flow from the architect, and if he is to control much more than he does now it is not at all impossible to conceive of a new form of contract under which the architect is not only responsible directly for the work of sub-contractors, but himself engages them under contract for the work, and uses the building contractor for organization and that part of the construction not performed by trade specialists. It is likely again that the normal form of specification, with bricklayer, carpenter, joiner, ironfounder, etc., will give place to a series of accurate specifications on the spot-item principle, dovetailed into a Time and Progress schedule directed by the architect, but engaging the active co-operation of everybody connected with the work. It is possible by such methods, as may later be shown, to lower the cost of slum clearance construction well below the accepted minima, and to arrive thereby at a new low level of rent.

Slum Clearance and Town Planning

This brings us back to the consideration of the three main headings of Rent, Construction and Land. If now it can be said that the rent which the poorest can afford to pay is 8s. per week, and construction costs, based upon large standardized units of lay-out, can account for a certain proportion, at the moment not specified, of the 8s., *then the remainder is in land*, and we are driven to see the whole problem of slum clearance—the most desperate problem which this country has had to face—in terms of town planning, land planning.

Glance through the published reports on slum clearance work in London and the large cities, and the vital nature of this last consideration springs to the eye. It is obvious at once that slum clearance has been so far an act of local surgery upon a diseased body; piecemeal; unconnected; bearing no relation to the regeneration of the road plan, the park plan or any part of the organization or *function* of the cities in which they take place. Nor is it possible for the Government to announce, like an American police chief crying out that he will rid the city of vice overnight, that it will clear the slums in five years; for without the operations of town planning, freeing vastly larger units for the erection of *really cheap dwellings* with sufficient open space, the slum problem is not solved, but aggravated. We are but setting out to build still more dwellings above the income of their occupants. So that perhaps here at last is the answer in terms of finance to those who claim that town planning is a burden of extravagance, and that we cannot rebuild our rotten cities.

One day, passing an L.C.C. estate, I remarked upon the beauty of the buildings to my friend, a German town-planner, with some degree of pride. "Yes, guvnor," said the busman, popping his head inside, "there's only one thing wrong with that place. All the people as lives there can't afford to!" There is no effective answer to the busman that does not throw overboard most of our pre-conceived ideas of housing in favour of standardized unit design, and *slum clearance through town planning.*

Slum Clearance in London

In every London borough people are thinking about slum clearance. If you could see a map in which new block dwellings were shown in red you would find them everywhere, filling in corners, filling up holes, expanding into largish schemes, but seldom, nearly never, clearing a way through the muddle of streets, and never achieving a new way of life for the poor. This problem of the land of London is the last, but the greatest, of the three elements of Rent, Construction and Land, and there is as yet no great *desire* to replan, perhaps because land has not been sufficiently recognized in its relation to the cost of living and *in terms of town planning.*

Design

In the methods outlined here, design is conceived in terms of ideal minima related to rent.

It seems hardly worth while indulging oneself in a fanciful chequer-board of solid and void if blocks are so closely spaced that they must be separated by arid and anti-social strips of hard tar paving.

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* A "minimum" kitchen is not a term of reproach. It represents the smallest size for absolutely efficient working: the elimination of waste rather than a concentration of traditional planning.

If the entrance of light through windows is a vital consideration for healthy living, that light must get past the great blocks to the windows in the fixed directions of the sun's movement. Any other arrangement is not slum clearance but barrack building that neglects to use such knowledge as is contained, for instance, in the R.I.B.A. report on the orientation of buildings. It is not design to good ends.

Nor is design good that places *style* before *use*, fearing the outcome of a complete and brave solution of the programme; for the purpose of slum clearance is to provide cheap dwellings for poor but otherwise normal people. Anything less than this is an indulgence of private taste at someone else's expense.

But what, after all, is there to fear but a new thing, strangeness, a new unit and a new proportion? Sir Christopher Wren helped to standardize a new unit after the disaster of fire. It was the brick that vitalized domestic architecture for close upon two hundred years.

THE GOVERNMENT'S FIVE-YEAR SLUM CLEARANCE PLAN

The only conclusion to be drawn from the announcement of the Government's five-year plan to rid the country of slums is that the Government intends to break the back of the problem in England by the end of the year 1938.

Preliminary work is to commence at once, and local authorities are expected to submit programmes and plans for slum clearance and re-housing by September of this year.

We intend to publish these programmes when they are announced, and to follow closely the development of the schemes in every area affected. In the meantime, between now and September, we propose to survey a number of the larger towns, and, by showing the full requirements in each, to give a basis upon which the value of local authority proposals may be judged.

In this issue we have dealt with :—

Birmingham
Glasgow
Leeds
Liverpool
Manchester
Sheffield

The following are in hand :

Bradford
Bristol
Cardiff
Edinburgh
Dundee
Hull
Newcastle
Stoke-on-Trent
London

—*Ed., A.J.*

THE END

TRADE ITEMS

Marble. A handbook. By Ian Cater. London : Art Pavements and Decorations, Ltd. Price: free.

The architect who is constantly seeking information and whose work covers so wide a field that his knowledge can never be quite complete, must often visualize a series of reference books, instructive works, compiled by specialists, dealing with methods and materials and giving concisely and completely the information that he requires.

Manufacturers are usually in the best position to produce such works. No one can be more familiar with a particular material and all the little snags of fabrication and construction it involves, yet they usually content themselves by telling the world how well they do their job, leaving the architect to find his own information by the laborious process of research.

A handbook on marble is a welcome addition to the few such books that do exist. In *Marble*, issued by Messrs. Art Pavements and Decorations, Ltd., Mr. Cater has taken about thirty of the more important varieties of the material, describing the uses, limitations, sources of origin and so on of each, illustrating his remarks by a coloured photographic reproduction of the material in every case.

Of Swedish green, for instance, he says :—

"The quarries, which are located at Kolmarden, have been known and worked in a small way since 1650, but it was only in 1902 that the installation of modern machinery enabled this marble to be extracted in sufficient quantity to be available for general use.

"The geological changes which have produced this marble have partially changed it into serpentine, and it is the varying distribution of this serpentine which gives rise to the different types.

"There are two principal varieties : Swedish green G.3, which is the lighter; and NYT.2, which is more mottled and contains dark markings. G.3 may be sawn either with the bed or cross-cut. Sawing with the bed gives a green surface, mottled with splashes of white, while cross-cutting produces ribbon markings. NYT.2 is invariably cross-cut to develop the characteristic markings. Really large slabs are, unfortunately, unobtainable on account of the narrowness of the bed, which is of an average depth of 18 ins. only. In addition to extensive use in Sweden, the country of its origin, Swedish green is freely used in England and on the Continent.

Practical notes, fixing and maintenance details, common to all varieties, are contained in a loose supplement.

F. R. S. Y.

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Messrs. Hill and McFarlane have sent us particulars of their Ardanbrite jointless floor covering, which they state can keep an even wearing surface, and not peat up through constant wear. It is also claimed to have the advantage of a self-polishing surface, no artificial polish being required; and is also said to be damp-proof, fireproof, germproof, noiseless, non-slip, homogeneous and hard-wearing. This floor, the price of which is extremely reasonable, can be laid on concrete or timber and is guaranteed against cracks.

Full particulars, samples and prices are obtainable from the manufacturers, Messrs. Hill and McFarlane, 66A, Chatterton Road, Finsbury Park, N.4.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at EALING : Twenty houses, Cavendish Avenue, for Messrs. G. K. Metcalfe, Ltd. ; five houses, Bideford Avenue, for Mr. A. E. Murdoch ; 18 houses, Oakwood Crescent and Woodcroft, for Messrs. John Laing and Son, Ltd. ; 12 houses, Abbey Terrace, for Messrs. P. H. Edwards, Ltd. ; nine houses, Dawlish Road, for Messrs. A. Watson, Ltd. ; four shops and flats, The Broadway, Ruislip Road, for Mr. E. R. Taylor ; 14 houses, Mayfield Gardens, for the Great Western Land Co., Ltd. ; six bungalows, Church Road, for Mr. E. De la Rue ; four houses, Bideford Avenue, for Mr. F. Roberts ; two houses, Cleveland Road, for the Oaklands Estates, Ltd. ; 248 houses, Empire Road, Jordan Road and Launceston Gardens, for Messrs. Swannell and Sly ; six houses, Wellmeadow Road, for Mr. W. Gardner ; 20 houses, Church Road, for Messrs. Grainger Bros. ; 14 houses, Ealing Road, Northolt, for Messrs. J. and J. H. Boothman ; five houses, Horsenden Lane, for Mr. A. J. Marshall ; nine shops and 18 flats, Hanger Lane and Western Avenue, for Messrs. T. P. Bennett and Son ; 29 houses, Beaufort Road, for Messrs. Haymills, Ltd. ; alterations to flats, Gunnersbury Avenue, for Mr. G. P. Bath ; factory, Aintree Road, for Messrs. Percy Bilton, Ltd. ; oil fuel tank store, St. Benedict's Church, Charlbury Grove, for Messrs. F. A. Walters and Son ; alterations, 7, The Green, for Messrs. Hall-Jones and Partners ; additions to factory, Cambridge Yard, for Mr. R. A. C. Churchward ; conversion of garages into factory, Uxbridge Road, for Messrs. W. H. Read & Co., Ltd. ; conversion into three shops, 158 and 160 The Broadway, for Messrs. Hall-Jones and Partners ; conversion into flats, 3 Leopold Road, for Messrs. Strange and Stengelhofen ; alterations to shop, Ealing Road, for Mr. J. E. Watts ; block of flats, Hastings Road, for The Housing Corporation of Great Britain, Ltd. ; additions to shop, Bilton Road, for Mr. G. L. Russell.

Plans passed by the FRIERN BARNET U.D.C. : Six houses, Gresham Avenue, for Messrs. Frampton and Palmer ; nine houses, Church Crescent, for Mr. G. Elphick ; flats, Oakleigh Road, for London Co-operative Society, Ltd. ; layout of Halliwick estate, for Halliwick Estates Co. ; three houses, Oakleigh Road, for Mr. E. Roberts.

SOUTHERN COUNTIES

Plans passed by the GILLINGHAM Corporation : Three houses, Gillingham Avenue, for Mr. H. Holden ; 53 houses, Third Avenue, for Mr. W. G. Wilson ; 22 houses, Beaconsfield Avenue, for Mr. F. T. Mattocks ; two shops, High Street, Rainham, for Mr. J. Clark ; lock-up shops, 151-5, High Street, for Mr. A. T. Batzer, on behalf of Messrs. Marks and Spencer, Ltd. ; two houses, Edwin Road, for Mr. A. Jarvis ; two houses, Carlton Avenue, for Mr. A. E. Neenham ; alterations, Co-operative Stores, King Street, for Mr. L. G. Ekins ; development, Rainham Mark estate, for Mr. G. H. Ward ; development, Upper Darland estate, for Messrs. A. E. Clifford & Co.

Messrs. Piper have lodged plans with the WORTHING Corporation for the erection of 135 houses, in the vicinity of Meadow Road.

The WORTHING Corporation recommends the acquisition of property in Chapel Road, and the erection of electricity offices and showrooms, at a total estimated cost of £18,000.

Plans passed by the WORTHING Corporation : Alterations, 17 and 19 The Broadway, Brighton Road, for Mr. W. T. Bagnall ; 10 houses and shops, Upper Brighton Road, for Mr. R. Hodgson ; two houses, Lime Tree Avenue, for Mr. G. W. Warr ; three houses, Sea Place, for Mr. R. J. Tinniswood ; alterations and additions to bakery, rear 62 Chapel Road, for Mr. J. E. Lund ; two houses, Livesay Crescent, for Worthing Estates Building Co., Ltd. ; new streets, adjoining Meadow Road, eight houses, St. Andrews Road, and 134 houses, Meadow Road, for Mr. H. M. Potter ; 36 houses, Sheridan Road, for Mr. S. C. Phillips ; three houses, Rugby Road, for Mr. A. T. W. Goldsmith ; three houses, Ophir Road and Offington Lane, for Mr. F. W. Payne ; 10 houses, Offington Avenue, for Mr. M. R. Fletcher ; new street, east of Findon Road, for Messrs. Jordan and Cook, Ltd. ; workshop and store, South Street, Tarring, for Messrs. Sparks and Son ; alterations, 29 South Street, for Messrs. Treacher and Farmer ; 34 houses, George V Avenue, for Mr. C. A. Jarvis ; four houses, Hailsham Road, for Mr. M. R. Fletcher.

SOUTH-WESTERN COUNTIES

The BRISTOL Corporation is to construct further roads and sewers on the Bedminster and Knowle estates, at a cost of £21,000, so that houses can be provided under slum clearance schemes.

The TORQUAY Corporation is to construct a concrete wall at Oddicombe, at an estimated cost of £32,000.

EASTERN COUNTIES

Plans passed by the COLCHESTER Corporation : Two houses, Ipswich Road, and house, Lexden Road, for Mr. C. Brown ; two houses, Clairmont Road, for Mr. R. T. Clarke ; four houses, Mile End Road, for Messrs. E. A. Cook and Sons ; two houses, Gladwin Avenue, for Messrs. Grimsey Bros. ; two houses, Ipswich Road, for Messrs. H. G. Pryke and Sons ; extensions, stores, Church Street, for Messrs. J. Moss and Son ; two houses, Shrub End Road, for Mr. George Hearsum.

MIDLAND COUNTIES

Plans passed by the SUTTON COLDFIELD Corporation : Showroom and garage, Kings Road, for Mr. L. King ; four houses, Maple Road, for Excelda Housing Society ; three houses, Tamworth Road, for Messrs. Davis and Son ; shop and house, Boldmere Road, for Mr. G. E. Clarke ; 33 houses, Boldmere Road, for Messrs. T. P. Smith, Ltd. ; two houses, Chester Road, for Morris Estates.

The WEST BROMWICH Corporation is to construct roads on the Hambletts estate, to provide for the erection of a further 300 houses.

NORTHERN COUNTIES

Plans passed by the BOLTON Corporation : 18 houses, Montserrat estate, Chorley Old Road, for Messrs. A. T. Reynolds & Co. ; two houses, Stapleton Avenue, for Messrs. R. Paiton and Sons ; 60 houses, Ferns estate, Tudor Avenue, for Mr. George Le Maire Barnes ; six houses, Brook Hey Road, for Mr. J. Latham ; service garages, New Hall Lane, for Mr. Norman Rowbottam ; alterations, vicarage, Stowell Street, for St. Matthew's Church Council ; vicarage, Bridgeman Street, for St. Phillip's Church Council ; two houses, Wigan Road, for Messrs. Dobson and Tierney ; 18 houses, Hulton Lane estate, for Mr. F. Holmes ; two houses, Old Kiln Lane, for Messrs. S. Main & Co. ; four houses, Bradford Road, for Mr. R. J. Tyson ; seven houses, Gregory Avenue, for Mr. G. Grisdale ; 16 houses, off Bradford Road, for Mr. W. Astley ; two houses, East grove Avenue, for Messrs. Price and Groves.

The BOLTON Corporation has obtained sanction to borrow £14,907, for the purchase of land, erection of 43 houses, and road and sewer works in connection with the Gibbon Street site ; and £2,719 for the erection of 12 bungalows on the Moorfield housing site.

Plans passed by the DEWSBURY Corporation : New streets, off Canterbury Road, for Savile Estate Co. ; two houses, South Street, for Mr. J. Tierney ; two houses, Henley Road, for Mr. H. T. Dawson ; two houses, Slaithwaite Road, for Mr. W. Marshall ; four houses, Bendigo Road, for Mr. R. Laycock ; four houses, Falcon Road, for Miss Gladys E. Turner ; two houses, Warren Street, for Mr. R. Dean ; two houses, Frank Lane, for Mr. S. Knowles ; six houses, Leeds Road, for Mr. G. Milner.

Plans passed by the SHEFFIELD Corporation : Two houses, Abbeyfield Road, for Messrs. Naylor and Barker ; six houses, Knowle Lane, for Mr. G. M. Taylor ; four houses, Greystones Grange Road, for Messrs. W. Malthouse, Ltd. ; four houses, Forres Avenue, for Messrs. Broomhead and Sons ; three houses, Pitsmoor Road, for Mr. C. H. Hoyland ; four houses, Brooklands Avenue, for Mr. G. M. Taylor ; 32 houses, High Storrs Drive, for Mr. A. Shaw ; 118 houses, Thorpe House estate, for Messrs. W. and J. Laver ; six houses, Derbyshire Lane, for the City and Suburban Estates, Ltd. ; four houses, Carlby Road, for Mr. H. Haywood ; 320 houses, Hollinshill Estate, for Hallewell Estates, Ltd. ; 52 houses, Firth Park, Addison, Bolsover and Cammell Roads, for Mr. C. S. Smith ; 449 houses, Hall Road, for Miss I. M. Helliwell ; two houses, Montrose Road, for Mr. J. W. Bailey ; two houses, Ecclesall Road, for Mr. H. E. Mottram ; 14 houses, Greystones Grange Road, for Messrs. W. Malthouse, Ltd. ; 30 houses, Hollinsend Road, for Messrs. Maxfield Bros. ; four houses, Mulden Road, for Mr. P. H. Slater ; four houses, Herries Road, for Mr. J. C. Mason ; five houses, Sharrow Lane, for Mr. H. A. Longbotham ; two houses, Tinsley Wharf, for the Sheffield and South Yorkshire Navigation Co. ; six houses, Carterknowel and Bannerdale Roads, for Messrs. A. Waddington and Son ; 178 houses, Thorpe House Estate, for Messrs. W. and J. Laver ; six houses, Toftwood Road, for Mr. M. Silman ; 120 houses, Woodthorpe estate, for the Estates Committee ; four houses, Wisewood Road, for Mr. P. H. Slater ; four houses, Forres Street, for Mr. F. Ridal ; four houses, Barnsley Road, for Mr. C. B. Malam-Wilson.

Plans passed by the SHIPLEY U.D.C. ; 24 houses, Taunton Street, for Messrs. Wm. Pitts and Sons ; three houses, Bargrange Avenue, for Mr. S. Rawson ; two houses, Wrose Road, for Mr. F. Dalby ; amended lay-out for 80 houses, Claremont estate, for Mr. F. Dalby ; lay-out of land, Wrose Road, for Messrs. Walton Bros. ; four houses, Nab Lane, for Nab Wood Estates Co. ; two houses, Westfield Lane, for Mr. A. Greenwood ; two bungalows, Wrose Road, for Messrs. A. and F. Mellor ; extension of works, Wrose Brow Road, for Messrs. J. E. Briggs and Sons, Ltd.

Plans passed at SOUTHPORT : Two houses, Fleetwood Road, for Mr. Charles Green ; shop and house, Station Road, Ainsdale, for Mrs. A. Tood ; three houses, Burnley Road, Ainsdale, for Mr. T. Swarbrick ; conversion into two flats, 16, Grange Road, for Mr. J. Cottam ; alterations to lodges, 1 and 2 Botanic Gardens, Botanic Road, for the Botanic Gardens Development Co. ; three shops and six flats, Lord Street, for Mr. James Rimmer ; conversion into flats, 30, Wennington Road, for Messrs. Wagstaffe and Fletcher ; conveniences, Holy Trinity C. of E. School, for the managers ; additions, 8 Church Street, for Dr. Campbell ; alterations and additions, 6 Melling Road, for Messrs. Graham and Caddick ; three houes, Fleetwood Road, for Mr. C. Green.

Plans passed by the STOCKTON-ON-TEES Corporation : 52 houses, Craigwell estate, for Mr. W. C. Cummings ; six houses, Green Lane, for Mr. J. C. Watson ; reconstruction, six houses, Crosby Terrace, for Mr. A. E. Hobbs ; two houses, Darlington Road, for Mr. G. F. Walker ; 16 houses, Whitfield Road, Norton, for Mr. T. F. Whitear ; four houses, Greens Lane, for Messrs. R. W. Russell and Son ; 24 houses, Eynesham Grove, for Mr. G. P. Stainsby ; estate development, off Hallifield Street, Norton, for Messrs. Lane and Fox ; two houses, Hartburn Avenue, for Mr. G. Hope.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen ; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11½
B_1	Bangor ..	N.W. Counties	1 3	11½
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11½
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11½
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
A	Durham ..	N.E Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11½
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11½
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Countie	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_3	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Countie	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11½
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A_2	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote ..	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth ..	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District ...	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11½
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11½
B_1	Yeovil ..	S.W. Counties	1 3	11½
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	10	6
Hydrated Lime	,,	3	0	9
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		7	6
Building Sand	,,		7	9
Washed Sand	,,		8	9
2" Broken Brick	,,		8	3
¾" ,, ,,	,,		11	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	8	8	0
Luton Facings	,,	8	0	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	24	10	0
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain Sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3" s.	3" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	2	6
,, drawn pipes	,,		19	6
,, soil pipe	,,	1	6	6
,, scrap	,,		14	6
Solder, plumbers'	lb.			10
,, fine do.	,,		1	0
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2½
,, ,, 26 oz. ,, ,, ,,	,,					3½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	1
Boiled oil	,,		2	3
Turpentine	,,		5	0
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

			£	s.	d.
Digging over surface n/e 12" deep and cart away		Y.S.		2	9
,, to reduce levels n/e 5' 0" deep and cart away		Y.C.		8	6
,, to form basement n/e 5' 0" deep and cart away		,,		9	0
,, ,, 10' 0" deep and cart away		,,		9	6
,, ,, 15' 0" deep and cart away		,,		10	0
If in stiff clay	add	,,		2	6
If in underpinning	,,	,,		4	0
Digging, return, fill and ram	,,	,,		4	0
Planking and strutting to sides of excavation		F.S.		1	0
,, ,, to pier holes		,,			5
,, ,, to trenches		,,			5
,, ,, extra, only if left in		,,			3
Hardcore, filled in and rammed		Y.C.		10	0
Portland cement concrete in foundations (6-1)		,,	1	6	0
,, ,, ,, (4-2-1)		,,	1	12	6
,, ,, ,, underpinning		,,	1	16	0
Finishing surface of concrete, spade face		Y.S.			7

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
,, junctions		3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	25	10	0
,, ,, in cement	,,	29	15	0
,, Stocks in cement	,,	35	15	0
,, Blues in cement	,,	52	0	0
Extra only for circular on plan	,,	2	0	0
,, backing to masonry	,,	1	10	0
,, raising on old walls	,,	2	0	0
,, underpinning	,,	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	,,			5½
,, ,, ,, red brick facings and pointing	,,			11
,, ,, ,, blue brick facings and pointing	,,		1	4
,, ,, ,, glazed brick facings and pointing	,,		3	6
Tuck pointing	,,			7
Weather pointing in cement	,,			3½
Slate dampcourse	,,			10
Vertical dampcourse	,,		1	1

ASPHALTER

		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	,,	6	9
¾" paving or flat	,,	4	0
1" paving or flat	,,	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	,,		2
Rounded angle	,,		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	,,		13	6
Artificial stone and do.	,,		13	0
York stone templates, fixed complete	,,		10	6
,, thresholds	,,		13	6
,, sills	,,	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	,,	3	7	0
Do., 24" × 12"	,,	3	17	0
Westmorland slating, laid with diminished courses	,,	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	,,	3	0	0
Do., all as last, but of machine-made tiles	,,	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
,, to stanchions	,,			8
,, to staircases	,,		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	,,		4	6
,, ,, roofs	,,		6	6
,, ,, trusses	,,		7	6
,, ,, partitions	,,		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" ,, ,, ,, ,,	,,	1	17	6
1¼" ,, ,, ,, ,,	,,	2	3	0
¾" × 2" fir battening for Countess slating	,,		9	6
Do. for 4" gauge tiling	,,		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
,, ,, ,, 2 ,,	,,		2	9
,, ,, ,, 3 ,,	,,		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1¼" ,, ,, ,, ,, ,,	,,		1	6
2" deal wrought rounded roll	F.R			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	,,	2	12	6
1½" do.	,,	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1½" do.	,,		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" ,, ,,	,,	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	,,	3	9
2" ,, ,, ,,	,,	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" ,, ,, ,,	,,	2	8
1½" ,, but moulded both sides	,,	2	4
2" ,, ,, ,,	,,	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" ,, ,,	,,	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2	6
1½" deal moulded wall strings	,,	2	1
1½" ,, outer strings	,,	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" ,, ,,	,,	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	,,	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	,,		19	6
Do. stanchions with riveted caps and bases and do.	,,		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	,,		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	17	0
Do. in flashings	,,	1	19	6
Do. in covering to turrets, etc.	,,	2	6	6
Do. in soakers	,,	1	12	6
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3½
Close ,, ,,	,,			4½

		½" s. d.	¾" s. d.	1" s. d.	1¼" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	1 0	1 2	1 5	2 1	3 0	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	5 9
Extra, only to bends	Each	—	—	—	—	2 3	6 3
Do. to stop ends	,,	6½	8	9	11	1 3	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	6 3	8 9	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	9 0	11 0	14 6	20 6	47 0	—

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	,,	1	6
Do. outlets	,,	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	,,	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	,,		3	6
Lathing with sawn laths to ceilings	,,		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	,,		1	9
Do. vertical	,,		2	3
Rough render on walls	,,		1	4
Render, float and set in lime and hair	,,		2	0
Render and set in Sirapite	,,		2	2
Render, backing in cement and sand, and set in Keene's cement	,,		3	1
Extra, only if on lathing	,,			4
Keene's cement, angle and arris	F.R.			6
Arris	,,			2
Rounded angle, small	,,			3
Plain cornices in plaster, including dubbing out, per 1" girth	,,			1½
1" granolithic pavings	Y.S.		3	6
1½" ,,	,,		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	,,		17	6
9" × 3" ,, ,, ,, ,,	,,	1	2	6
Extra, only for small quadrant angle	F.R.			8

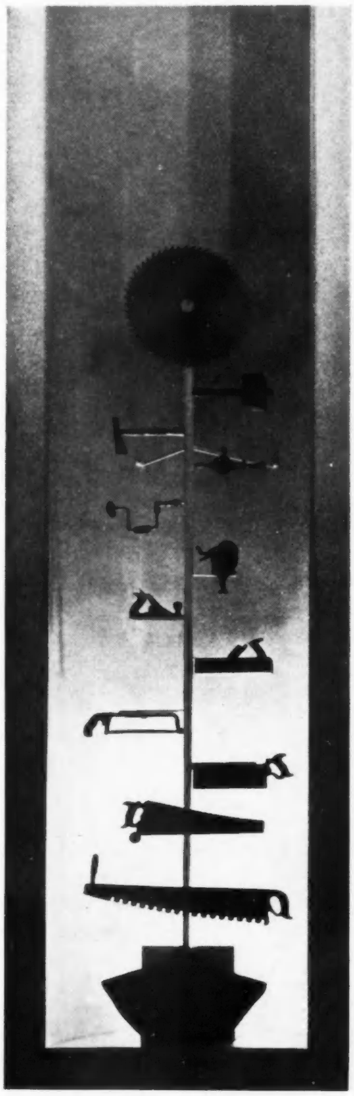
GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7¼
26 oz. do. and do.	,,		8¾
Arctic glass and glazing with putty	,,	1	1
Cathedral glass and do.	,,	1	2
Glazing only, British polished plate	,,		7
Extra, only if in beads	,,		2
Washleather	F.R.		4

PAINTER

			s.	d.
Clearcolle and whiten ceilings		Y.S.		6½
Do. and distemper walls		,,		9
Do. with washable distemper		,,	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces		,,	3	3
Do. on woodwork		,,	3	6
Do. on steelwork		,,	3	0
Do. and brush grain and twice varnish		,,	5	6
Stain and twice varnish woodwork		,,	1	11
Stain and wax-polish woodwork		,,	4	6
French polishing		F.S.	1	2
Stripping off old paper		Piece	2	0
Hanging ordinary paper	from	,,	2	9

THE KEYNOTE OF THE B.I.A. EXHIBITION

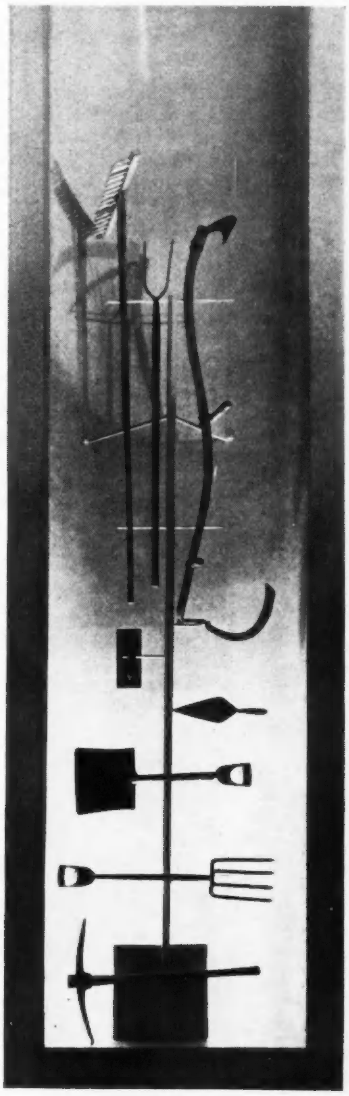


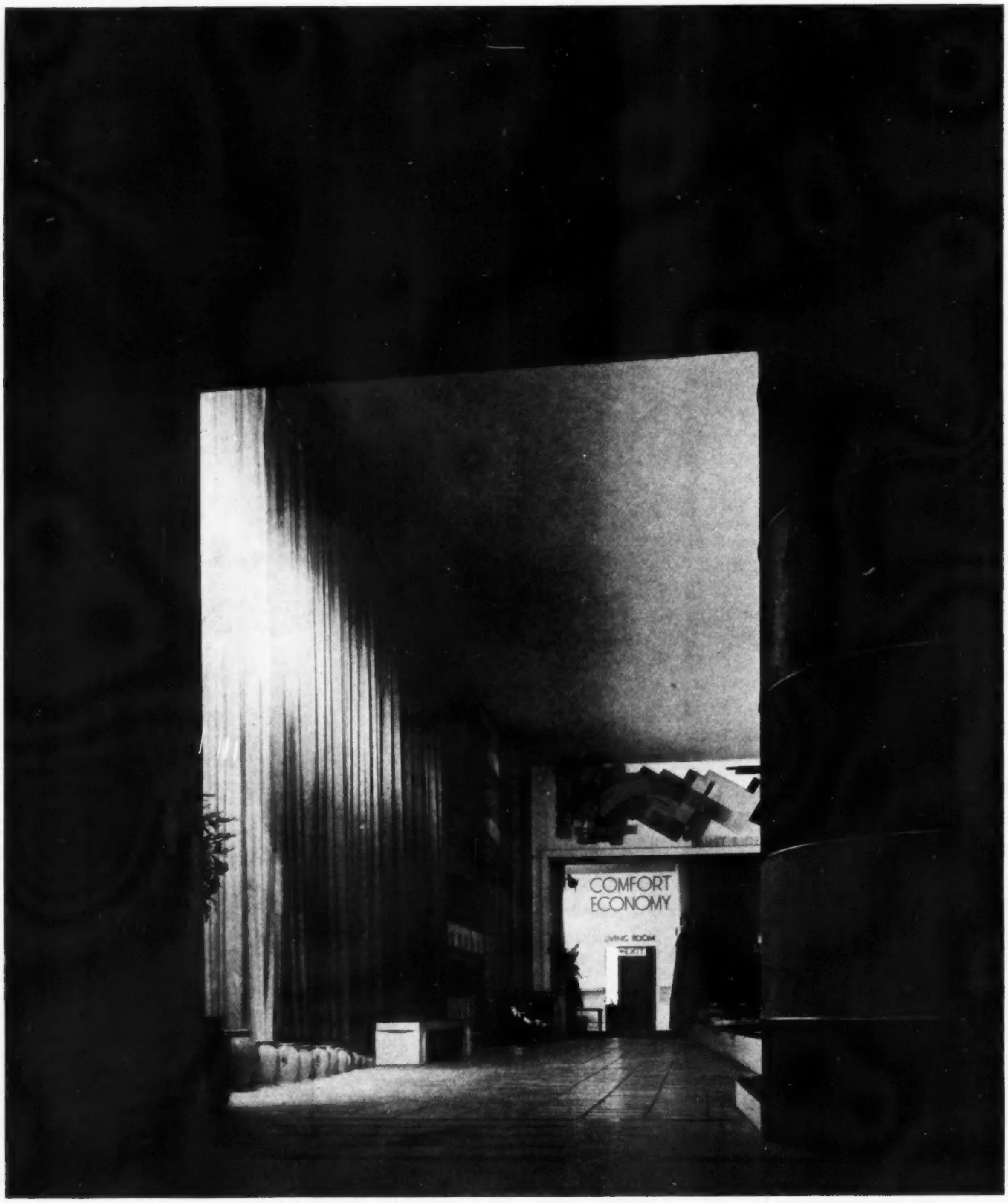
THE BEAUTY OF EVERYDAY IMPLEMENTS

THE Entrance Hall of the Dorland Hall Exhibition starts on a felicitous note, showing us real industrial art—implements of use closely connected with every home which are not usually regarded æsthetically.

This exhibit demonstrates how beautiful these simple things of everyday use actually are, and puts one in the frame of mind to judge the rest of the Exhibition from the same standpoint.

" The Intelligent Woman's Guide to the Exhibition" appears on pages 865-72 ; it will be followed, subsequently, by a technical survey.





AT THE B.I.A.: THE MAIN HALL

DESIGNED BY OLIVER HILL

The words "Comfort" and "Economy" salute the visitor entering Dorland Hall to view the B.I.A. Exhibition. What is displayed within acknowledges these desiderata of modern life. The exhibits show the advances already made in superseding the old call for "artistic," uncomfortable, expensive furniture and fittings, and point the way to the fuller utilization of modern manufacturing resources.

Nothing in the Exhibition is finer than this ante-room to new experience, conceived with a splendid sense of proportion. And the materials open one's eyes to a whole fresh world of possibilities. To take only two instances conspicuous in the above view, the flooring is of dull white Vitrolite tiles, and the panelling, with its ends curved by a special process, is of Empire timber veneers.

THE GREAT LITTLE EXHIBITION OF 1933

" *This Exhibition must not be thought the isolated endeavour of some enthusiasts : it does not stand alone*, but is the forerunner of a concerted national movement . . . *I have every hope that it will pave the way to a regular series* based on a coherent plan."—LORD GORELL.

THOSE whose faith in the vitality of English design had worn thin in hoping against hope for the revolution in taste which the Exhibition of British Industrial Art that opened on June 20 proclaims, prophesied that either it would never materialize, or else only as " one more blush for Britain." They were doubly wrong. For the Exhibition is the sort of wholly unexpected triumph of rightness over wrongness and direction over drift which makes one throw one's hat in the air. As the French would say, its organizers, selectors, planners and guarantors " have deserved well of their country."

And, largely, thanks to them, their country takes its place once more—not quite so self-confidently as in the past, but conscious of its former prowess—among the creative nations of the modern world, after a century's interregnum. The splendid sobriety of the English tradition, so long servilely reproduced or prostituted instead of being reinvigorated and renewed, is now resumed. We can lift up our heads again as a *Kulturvolk*, for the days of living backwards in splendid isolation are numbered. A definite, because collective, British contribution to the æsthetic canons of our age has made its appearance and is " on view." Here we are confronted not only with one of the most momentous events in our cultural development, but with the presage of an imminent resurgence of the national genius in design. It is something more than chance—for the history of art, like history in general, rarely admits coincidences—that this year, too, Great Britain has at last entered that eminently unacademic federation, the International Congresses of Modern Architecture ; and that the Englishman invited by it to form a British unit should be one of the architects whose work is most in evidence at Dorland Hall.

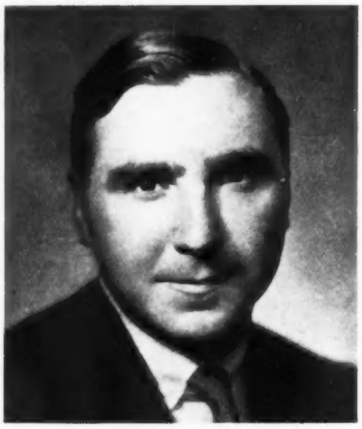
For the first time, all that is best in English design has been deliberately winnowed away from all that is not, and then grouped together apart. The result, which surpasses all expectations, has been a revelation —not merely to " the right sort " of English visitors, but to foreigners as well.

Lord Gorell points out in his Foreword to the Catalogue that the work of the selection committees reveals not only " what has already come into being," but what is " in process of fruition." The paramount importance of showing the latter is made clear by a very necessary reminder in Mr. Christopher Hussey's admirable " Introduction " that this is " the first opportunity for public and producer to come into direct contact." We trust both will avail themselves of it to the full. And it must not be forgotten—for this is one of the most encouraging aspects of all—that the exhibition is an " official " one in every respect except that of direct Government subvention. If " the world's economic crisis " was responsible for this tangible endorsement of the now famous Gorell Report being withheld, it has also caused the Exhibition to be more than ever a crucial turning-point in the evolution of British design. People (including, we hope, plenty of " the wrong sort ") are going to the Exhibition not to learn how to spend their money, but to see ways in which they can save it. Most of the great movements in architecture and decorative art have had an economic basis.

Window-dressing is an art which has never become acclimatized in this country. English shopkeepers believe in quantity before quality, and crowd their windows so that the confusion of articles defeats the possibility of separate inspection. Their displays are representative of the wide range of their wares, not selective of the newest or best among them. Until yesterday the same fatal blemish applied to all British exhibitions. At Dorland Hall there are no " today's best selling lines," though plenty of the exhibits may well be the prototypes of tomorrow's. Quite apart from what is shown—and where else in the whole world can more adventurous glass, or better and better-looking textiles be seen ?—the Exhibition is magnificent as expert showmanship. It should do much to educate the shopkeeper's ideas not only of what to stock, but of how to set it out for sale. The stands, the actual displays and the lighting (except in the book section, where the desire to have each title-page fully lit has somewhat militated against the *ensemble*) are all examplars of perfectly co-ordinated *ad hoc* planning.

There is one significant omission in the list of guarantors which needs a lot of explaining : the F.B.I.

If the Dorland Hall Exhibition accomplishes nothing else—and it is going to move mountains of inertia and complacency—it is at least showing the public that the annual British Industries Fair at the White City and Birmingham is neither enough, nor good enough.



J. S. Allen, B.Arch., A.R.I.B.A., who has just been appointed head of the Leeds School of Architecture. See note on page 856.

NOTES & TOPICS

CONFERENCE REFLECTIONS

SINCE my return from Cambridge and the R.I.B.A. Conference of last week, I have received the following letter from a correspondent :

> DEAR ASTRAGAL,—I read with interest your suggestion that the Cambridge Conference ought to devote its time to the discussion of serious subjects.
>
> In one way I quite agree with you, but I expect you would be amused to discover that the vast majority who attend these Conferences entirely disagree. There is nothing they hate more on such occasions than to be asked to consider and discuss a really important subject.
>
> When the present series first began two whole mornings were devoted to serious papers and what was meant for serious discussion on burning professional topics, but there was the greatest difficulty in making and keeping audiences of any size, and the attendance on the second day was deplorable. What they all wanted to do was to get to work at once on what really attracts them, the visits to buildings, the tours, the luncheons and dinners and the long friendly talks in the hotels, which the old hands say are the most important and pleasant features of these annual events.
>
> In the second year of the Conference, at the urgent request of the organizers, the serious discussion was cut down from two days to one, again with the same result. The subject was attractive and interesting enough, the people simply did not want to discuss it on a fine summer's day.
>
> The next year the organizers tried to cut out serious discussion altogether, but after all it is a " Conference " and there must be at least one morning of a serious character, though even so it is difficult enough to get anything like a decent number of members to come into the meeting. I remember one year we had an admirable lecturer, a burning subject of the utmost importance to discuss, and the situation was only saved by a violent shower of rain which drove a sufficient audience into the Conference Hall to make us look like a serious body. When the rain stopped they began to sneak out and rejoin their wives and daughters.
>
> It may be possible, of course, to change all this, but lots of people have tried for many years past and they have completely failed. What you are up against is the ordinary human nature of normal members.

Research at this year's Conference convinces me of the truth of my correspondent's observations. Human nature is weak but nice. If I probe into my own activities at Cambridge I find that I spent the major part of the Conference's time learning from an Australian architect how to throw a boomerang. I hit a horse and finally lost the boomerang in a tributary of the Cam.

*

The rest of the time seemed to be spent on the slum problem. There is no doubt that the profession is taking this particular question seriously. Sir Raymond Unwin, in referring to the slum number of THE ARCHITECTS' JOURNAL, drew a pointed comparison between over-production in commodities and under-production in housing.

*

The success of the Conference was marred by one thing —the absence of a famous Cambridge figure, Mr. Mansfield Forbes, of Clare and Finella.

*

That an architects' conference should be held at Cambridge without Mr. Forbes seems inconceivable. Nevertheless Mr. Forbes was not there. Nor was his name down amongst those of the guests at the banquet. I should think I overheard fifty enquiries for him.

*

This is all the more extraordinary in that as far as architecture is concerned Mr. Forbes *is* Cambridge. Obviously he must have been asked to the Conference. It was most disappointing that he could not see his way to be there.

*

The other surprise—this time a pleasant one—was the exhibition of students' work at the School of Architecture. There is a disposition in certain quarters, I find, to regard the Cambridge school as " not serious." Those who went there in the hope of finding evidence to support this theory must have got rather a shock.

*

GHASTLY GOOD TASTE

The sensation of the week is *Ghastly Good Taste, or a Depressing Story of the Rise and Fall of English Architecture, (Chapman and Hall, 5s.)*. The author is Mr. John Betjeman, who is described by William Hickey, in *The Daily Express*, as slight, dark and untidy, with projecting teeth and a pale green face.

*

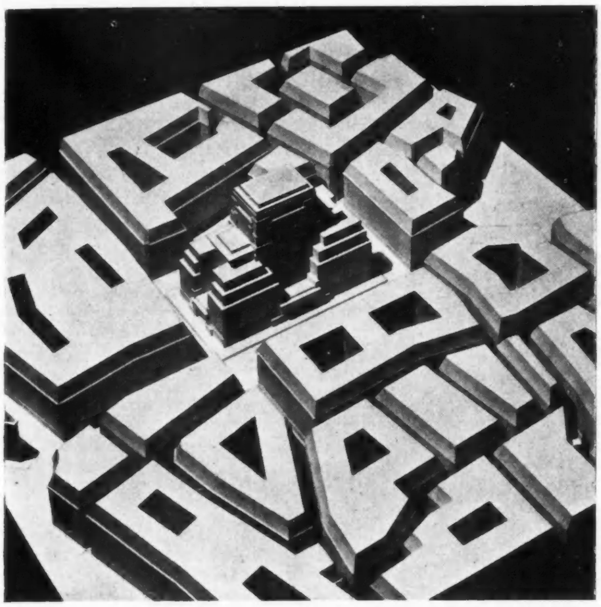
I know Mr. Betjeman, and can vouch for the pale green face. " It is not because I have such a rooted dislike for English architects [he writes], but because I have such a rooted love for English architecture that I write so malevolently of the majority of its present practisers in this country."

*

" Malevolently " is the right word. Mr. Betjeman is a good hater. If his book doesn't make somebody angry it ought to. I suppose Mr. Betjeman is to be numbered amongst the Bright Young Men. Before the war they wrote poetry and criticized obscure mediæval literature. Now they write about architecture. This, to my mind, is a significant development to which only very stupid architects will find objections.

*

Nor, I fancy, will their objections in any way deter the Bright Young Men.



A photograph of a model, made from the designs of Sir John Burnet, Tait and Lorne, to illustrate the British Steelwork Association's suggested amendment to the London Building Act, 1930. See page 872.

LUXURIOUS EFFICIENCY

I was recently in the office of a magnate in the Midlands, a bland, expansive pundit, who honoured me with an appointment at 10 a.m. We conferred, and as I listened I observed a metal-lipped plate of frosted glass standing upright on his desk, whereon something of the great man's greatness was dramatically indicated.

*

In illuminated letters, under the general heading of "Awaiting Interview," a list of names gradually grew longer. "Mr. Jones" and "Mr. Brown" had established themselves on the indicator when I arrived. Presently they were joined by "Mr. Robinson, Mr. Smith, Mr. Goop and Mr. Slug."

*

At 12.45 the magnate said: "You will lunch with me: I should like you to meet one or two of our executives." I glanced at the indicator, now occupied by eleven names "awaiting interview." The magnate smiled, turned a switch in the frame, and all the illuminated names went out. "They must wait," he said.

*

After lunch I went to the office shared by Mr. Brown and Mr. Jones. "Have you switched in, Brown?" asked Jones, and the latter nodded. I couldn't resist a question, and Mr. Jones, pointing to a red switch marked "Chairman," said: "That tells the chief we're waiting for an interview; we always put it on when we're in—it looks well, you know."

*

DORLAND HALL ECHO

I overheard two dear old ladies exchanging views after inspecting one of the British Industrial Art exhibits, at Dorland Hall, where they had been talking to one of our leading experts in compressed furnishing. He had been explaining the design of the exhibit with the lucidity of a functionalist. "My dear," said one as they left the stand: "what a nice young shopman. Well educated, too!"

*

Problem: should an architect sell?

*

PLAN LOOKS LIVERPOOL IN THE FACE

Across the Mersey, facing Liverpool and its slums, is a piece of intelligent good order. The ferry approach and tram terminus at Seacombe have been tidied up, and tidied up to some purpose.

*

Sheltered ways lead to the booking hall, a tall clock tower without trimmings uprises from the building, and something of the comfortable efficiency of the new London Underground stations is suggested by the whole lay-out.

*

If only the trams that decant passengers for the ferry were painted a less sickly shade of green, the warm hue of the brickwork in the new buildings might be seen to better advantage.

*

THE PRICE OF PROPERTY FOR RECONDITIONING

Auction sales in order to raise money for housing societies have become fashionable today. Leaders of Society serve on housing committees. This shows the increased interest taken in the slum problem, and therefore is all to the good.

*

Unfortunately there is another aspect which has been brought to the notice of the committee of which Lord Moyne is Chairman. The increased number of enquiries for the purchase of old property that may be reconditioned has led to a distinct hardening of price. A leading estate agent tells me that, from his own experience, he estimates that the price of buying unsatisfactory property has increased by at least 25 per cent. in the last two years.

*

The moral, of course, is that societies which wish to spend subscribers' money to the best advantage would do better to engage an experienced architect than to send up property values by embarking injudiciously upon reconditioning programmes.

ASTRAGAL

THE ARCHITECTS' DIARY

Thursday, June 29

EXHIBITION OF INDUSTRIAL ART IN RELATION TO THE HOME. At Dorland Hall, Lower Regent Street, S.W. Until July 12. 9.30 a.m. to 7.30 p.m. (Wednesdays 9.30 a.m. to 10 p.m.) 9.30 *a.m.*

ROME SCHOLARSHIP IN ARCHITECTURE, EXHIBITION: (at the R.I.B.A.) of the designs submitted in the competition. Until July 1. 10 a.m. to 8 p.m. (Sats. 10 a.m. to 5 p.m.) 10 *a.m.*

ARCHITECTURAL ASSOCIATION, 34, *Bedford Square, W.C.*1. Exhibition of recent work of the Egypt Exploration Society. Until July 15. 10 a.m. to 10 p.m. 10 *a.m.*

*ROYAL ACADEMY, Burlington House, Piccadilly, W.*1. Summer Exhibition. Until August 7. 9 a.m. to 7 p.m. 9 *a.m.*

HOSPITAL CONGRESS. At Knocke-sur-Mer, Belgium. Until July 3.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS. At Eastbourne. Sixtieth Annual General Meeting and Conference. Until July 1.

LONDON SOCIETY. Visit to the Fulham Dust Destructor, Townmead Road, S.W.6. 3 *p.m.*

BUILDING CENTRE, 158, *New Bond Street, W.*1. Housing Exhibition. 11 a.m. to 7 p.m. (Sats. 1 p.m.) 11 *a.m.*

Saturday, July 1

Sunrise 4.46 a.m. Sunset 9.21 p.m.

NEWS

POINTS FROM THIS ISSUE

The annual British Industries Fair at the White City and Birmingham is neither enough nor good enough 853

The idea of living in a few cells in a vast pile of biscuit-boxes has never appealed to the President of the R.I.B.A. 857

The modern kitchen is becoming a pleasant workshop 872

Where the Underground building fails to develop its full value is on the economic side 872

The low-cost house of the future may be manufactured in central factories and assembled on the site 874

Old bricks v. new mortar 877

How Mr. D. N. Martin-Kaye sponsored architectural societies in East Anglia 878

LONDON UNIVERSITY

On Monday last the foundation stone of the new home for the University of London, in Bloomsbury, of which Mr. C. H. Holden is the architect, was laid by H.M. the King. The ceremony marked the birth of a new centre of university life in London, and when the scheme is finished some ten and a half acres in the heart of London will have been completely rebuilt.

The work of developing the site (which cost £525,000) will be carried out in stages. Those stages will probably spread over many years. The first unit to be erected will be the Senate House and official headquarters of the University. This is to occupy the south-west corner of the site and will face the north front of the British Museum.

The exterior of the buildings will be faced to a height of about 15 ft. with granite and above with Portland stone. The core of the main structure will be of brick.

THE NEW HEAD OF THE LEEDS SCHOOL

Mr. J. S. Allen, B.Arch., A.R.I.B.A., lecturer in architecture at the University of Liverpool, was on Tuesday appointed head of the Leeds School of Architecture, in succession to Mr. Joseph Addison, F.R.I.B.A.

Mr. Allen, who is 35, has been at Liverpool University since 1929. He is hon. secretary of the Liverpool Architectural Society and a member of the advisory panel of architects for Cheshire under the auspices of the C.P.R.E. After extensive travel in Europe and the Near East, he spent two years in the United States, being engaged on several buildings in New York. On his return from America he became senior assistant to Sir Arnold Thornely and Mr. H. J. Rowse on India Buildings, Liverpool, one of the largest office blocks in Europe.

Mr. Allen will take up his Leeds post in September.

IS YOUR NAME on THE LIST?

No diminution in intensity of the "Build Now" campaign of the Special Committee for Public Relations of the Building Industries National Council must be permitted by members of the building industries. The time when unemployment normally increases is drawing near; every effort must therefore be made to stimulate employment in these industries during the coming winter months.

Recent additions to the subscription list of the Special Committee for Public Relations are as follows: The National Federation of Building Trades Employers, £250; Prior Burners, Ltd., £1 1s.; George Shaw (Mansfield), Ltd., £1 1s.; South Western Counties of England District Federation of Clay Industries, £10 10s.; Yorkshire Amalgamated Products, Ltd. (2nd instalment of £100), £25; The Ruberoid Co., Ltd. (final instalment of £100), £50.

Subscriptions to the fund, which has now reached £2,969 17s. 10d., should be made payable to the Special Committee for Public Relations, and be addressed to Mr. Oswald Healing, F.S.I., at 5, Duke Street, Adelphi, W.C.2.

A LIVERPOOL ARCHITECT'S APPOINTMENT

Mr. W. G. Holford, B.ARCH., A.R.I.B.A., has been appointed to the vacant post of Senior Lecturer in Architecture at the Liverpool University, the appointment to date from October of this year.

Mr. Holford, who is twenty-six years of age, is an old student of the Liverpool School of Architecture with a distinguished record.

TOWN HALL FOR BRIGHTON

A proposal for a new town hall for Brighton has been approved by the Brighton General Purposes Committee. The hall is estimated to cost £250,000. Mr. John L. Denham, F.R.I.B.A., is the architect.

THE HOUSING PROBLEM

Sir Ernest Simon, addressing the members of the Rotary Club of Manchester on housing, with special reference to the problems of Manchester, said the housing campaign must be tackled in two stages. The first was to go ahead with building as hard as possible until there were enough houses for all families to have at least the minimum accommodation of two-up-and-two-down, so that every family had a chance to get out of those houses let as lodgings. Once there were enough houses for all and some empty ones, then let the City Council start pulling down bad houses as fast as they could go on building new ones. That would be the second stage.

BUILDING SOCIETIES

Sir Harold Bellman has been appointed Chairman of the Council of the National Association of Building Societies, in succession to Sir Enoch Hill, who has occupied the position for the past twelve years.

ROYAL SOCIETY OF ULSTER ARCHITECTS

Mr. Thomas Houston, L.R.I.B.A., has been elected president of the Royal Society of Ulster Architects in succession to Mr. R. H. Gibson, F.R.I.B.A., who has held the office for two years.

LEVERHULME SCHOLARSHIP

The first Leverhulme Scholarship in architecture, value £200 a year for five years, tenable at the Architectural Association School of Architecture, has been awarded to Mr. David Duncan, of Brechin, Scotland.

AN ARCHITECTURAL EXHIBITION AT READING

An exhibition of works by members of the Berkshire Society of Architects and the R.I.B.A. Students' Prize Drawings was opened by the Mayor of Reading at the Corporation Art Gallery, Reading, on Tuesday last.

THE LATE MRS. BENNETT

We much regret to record the death, during the Conference Banquet in Trinity College, Cambridge, on Friday last, of Mrs. John Bennett, wife of the city architect of Exeter.

R. I. B. A.

THE NEW BUILDING

Yesterday, at 3 p.m., the Rt. Hon. Lord Howard de Walden and Seaford, HON. A.R.I.B.A., laid the foundation stone of the new headquarters of the R.I.B.A. at the corner of Portland Place and Weymouth Street, W., designed by Mr. G. Grey Wornum, F.R.I.B.A.

The Council of the R.I.B.A., some time ago, approved the sum of £106,250 to be expended on the erection of the new building. We understand that the architect has recommended Messrs. Ashley and Horner's tender of £106,377.

THE CONFERENCE

About four hundred persons attended the inaugural meeting of the R.I.B.A. Conference at Cambridge on Thursday last. The welcome of the town of Cambridge was extended to the conference by the Mayor (Alderman Mrs. Keynes).

MRS. KEYNES said: The waves of academic buildings are encroaching ever more and more upon the territory of daily business life, and I know that you, Mr. President, will sympathize with our problems of town-planning in such a congested area.

Cambridge as a town, so far as its public buildings are concerned, has to take a modest place architecturally. The future I hope will see us in more dignified surroundings, but the function of Cambridge has been, and probably will always be, to provide a home for the University, and not to rival it architecturally.

SIR RAYMOND UNWIN, before delivering his presidential address, thanked the Mayor for all she had done to make the Conference a success. He also congratulated Mr. P. C. Blow, A.R.I.B.A., and the local secretary (Mr. Norman Hurst), on the very successful arrangements made for the Conference, and coupled with the congratulations the name of Mr. Theodore Fyfe, F.R.I.B.A., the Chairman of the Cambridge Chapter.

Sir Raymond then dealt with the question of housing. He said: We have been receiving some of the data of the very valuable returns from the Census authorities as to conditions, and I find from the 1931 census, taking the separate families in England and Wales, we are half a million, in round figures, worse off. The deficiency in dwellings is half a million more than it was in 1911. That represents something like the deficiency of the War years, and after all our struggling we have failed to make any impression on the War deficiency. The deficiency in houses in 1911 was a quarter of a million, and therefore today we are three-quarters of a million short. That has nothing to do with slums or bad housing. In addition to the three-quarters of a million houses required to make up the deficiency I estimate there are half-a-million of houses not fit to live in, and another half-a-million that fall far below any decent standard of accommodation that any of us would set up.

Many of you will have seen that *The Architects' Journal* this week has dealt with six great cities, and they have come to the conclusion that on a moderate basis there should be one-and-a-half persons per room. I would look at it in this way—take your own dwelling and assume your family grows until there is one-and-a-half persons per room, and see what you would think of it. The total population of the six cities is 4,707,000 people, and of these *The Architects' Journal* says 1,194,513 are overcrowded, that is over 25 per cent., and they estimate to get rid of that overcrowding 280,000 houses are necessary.

The point I want to put to this Conference and to the architectural profession most seriously is how are these people to be housed. This is the most vast architectural problem of our time. We hear of over-production in commodities, we hear that in Canada and other countries they have wheat stored up to last one-and-a-half years. We hear of all sorts of over-production. Why is it we have this under-production of dwellings, which are quite as important for our welfare as wheat and other products? Not only is this the biggest architectural problem of our time, but a task vital for the architect as it represents the most important town-planning problem of our time.

We have had, sitting under the chairmanship of Major Barnes, a committee dealing with slum clearance and overcrowding. They have not found the problem of slum clearance an easy one, and we are awaiting with interest their report, but they have given me one or two fruitful suggestions. They say there is very useful work for citizens to do in surveying conditions and putting them before borough councils. Information was required that they might see where the difficulties lie, and suggestions were useful in the determination of what land there is. And there is still more to do in preventing the reaction of intrusive industrial and other buildings which are crowding out people in places where people ought to live, and where industries ought not to be needed.

The Mayor of Cambridge (Alderman Mrs. Keynes) who extended the welcome of the town of Cambridge at the inaugural meeting of the R.I.B.A. Conference last week.

How are these families to be dealt with, and how are they to be housed—in homes or in warehouses? Some of the modernists in construction and other things are not less prone than the more traditional to make use of false statements in putting forward their ideas of what is required, and that is not the right way to go to work. If it is wrong for the traditionalist, it is equally wrong for the modernist to go to work in that way. There is a great deal of talk of housing families in vast steel and concrete warehouses, and of the great economy and urban benefits, whatever they were, in so doing. It may be that the modern man and the modern family will like living in a few cells in a vast pile of biscuit boxes. I don't know. But that has never appealed to me as my idea of a home. Perhaps I am prejudiced.

Let us examine what are the arguments for the new method of warehousing families. I think there may be many alternative ways of housing families in houses that are homes. For years and years I have hankered after the opportunity of seeing whether it is possible to copy some of the beautiful features of colleges, grouping houses round courts and quadrangles after the example of colleges. I don't want to dogmatize. I don't want to persuade people to be housed in my particular way of housing. If people do want to be housed in big masses in the centre of a town by all means let them be so housed, and I do not want to interfere with the game of bricks on a large scale which many of our designers are enjoying playing at at the present time, but I want us to be serious and careful about it, because it is easier to put up these places than to remove them.

The reasons given for warehousing are that we can't afford the cost of cottage homes, we can't afford the space occupied by them, and we can't afford the journeys to and from the places of employment. Let us examine these things and see whether there is any substance in them. I am going to be more generous than to take 12 houses to the acre. I am going to take ten because it simplifies my arithmetic. According to the last Census report the whole of the families of England and Wales living in houses built ten to the acre would require 1,599 square miles. The County of Somerset contains rather more, so you can house the whole of the population of England and Wales in the County of Somerset. Let us see how the London region stands. First of all we have 1,846 square miles. I will give the County of London, for public buildings, shops, warehouses, all the land, and that would require 117 square miles. We will add 1,599 square miles for the population outside, and I find I have 130 square miles left. I have housed the whole of the population of England and Wales in an area outside London, and have given them a belt of 130 square miles over to play in, and yet we have plenty of room.

Is it not ridiculous to talk about shortage of sites when you have this vast acreage? People who put up these concrete warehouses always think they are short of sites. But the fact is we scatter our houses all over the place, we string them out along roads and make ribbon development. It is not the land we occupy, it is the land we spoil in scattering our houses and straggling over the country. We have had to house in London in the last 20 years 647,000 families. If you take a circle of eight-mile radius to include parts of London pretty well built up, I find it is possible to house all the people at ten houses to the acre within a belt one-and-seven-eighths of a mile wide, and that would add one mile to the average journey to the centre of London. If we take 40 houses to the acre it would still require a belt half-a-mile wide. The fact is again we spilt these people over a belt ten miles wide, all over London, because we have not had proper planning or control.

I think fairly we can afford the space, and the cost of homes was not more than the cost of warehouses. It costs us in London £300 per family more for every family we house in a tenement block in the centre than for every family we house in a little cottage on the outskirts of London. And if these enthusiasts for concrete tell us, as they do, that they are going to house these people for less money, I do not say it cannot be done, and if done it seems to be extremely useful, but there is a great deal to be found out. We know nothing yet of the conductivity of sound in buildings of that type when used as dwellings. I am wondering if I lived in one of these cells how many gramophones and loud-speakers I should have to hear at once.

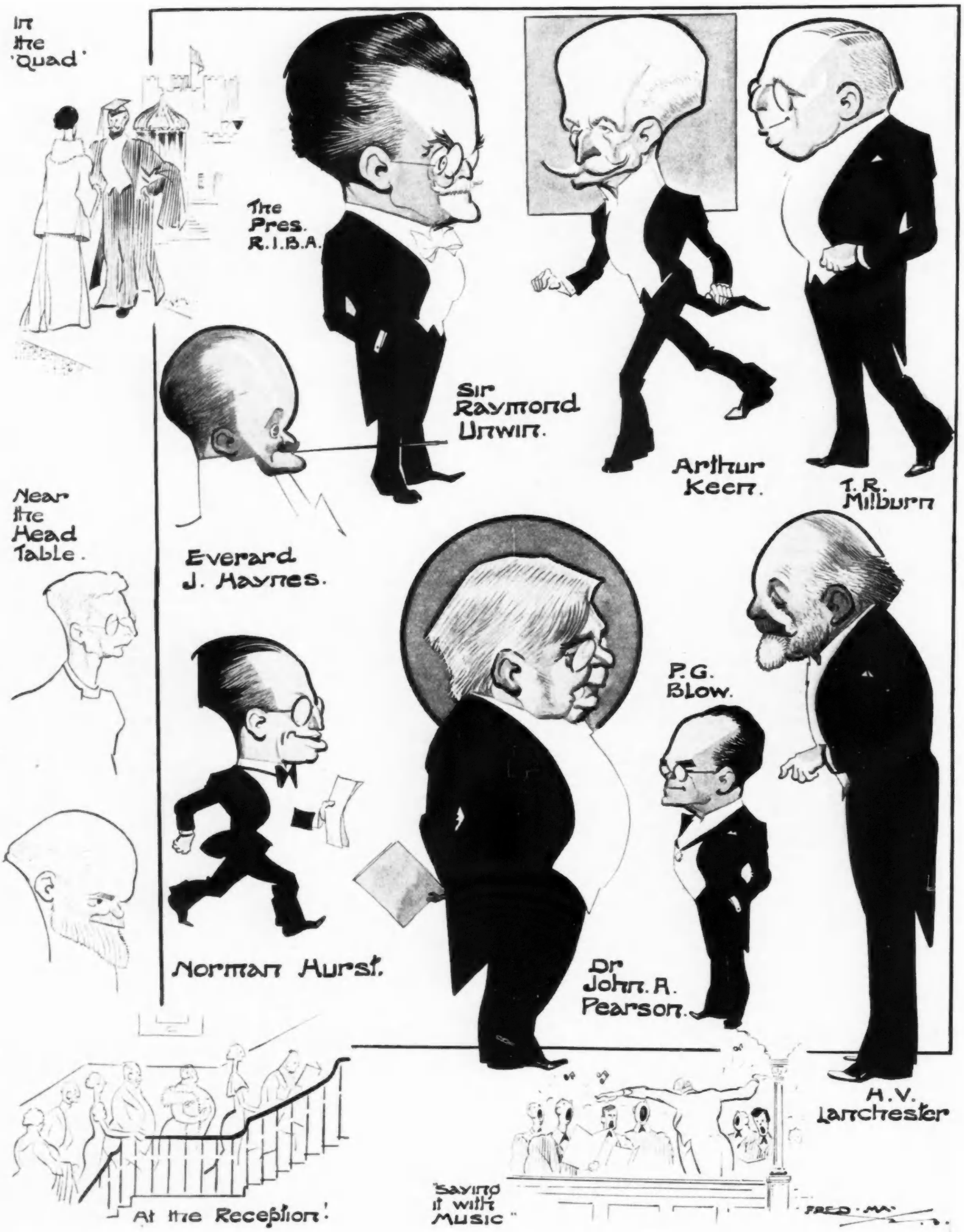
This problem of the growth of towns is a problem of planning and design, and we have to look at it as we do at other problems of planning and design. We have to think of the purpose, and if we architects are worthy of the name we know something of the problem of having to think in terms of cubic space, and here we are thinking of families that have got to grow up and cultivate pure relations. We are thinking of homes that will not only give them elbow room but something that will entwine itself around their hearts' affections when they come home, associations that they will carry with them all their days of life. That in my view is what the architect can and should give to the generations.

The Other Speakers

Other speeches were made by Messrs. Geoffrey Webb, M.A. and A. Beresford Pite, F.R.I.B.A. **MR. WEBB** said: In recent years there has been a revolution against Oxford and Cambridge Gothic. The bright young men who on going down take to journalism are apt to sneer at domestic Gothic. One of them more witty than the rest remarked, "I think the atmosphere of domestic Gothic in Oxford and Cambridge is a bad smell." They call it squalid, and in a sense they are right. It is only the eighteenth and nineteenth centuries that have made us look less squalid. The tradition of Cambridge was one don and four students to one room. The princely scale of King's was to end our squalor, for the great architect felt that it was unwise of King Henry VI to spend his money on building another slum. When the one don and four undergraduates standard was applied to the richest foundations they felt that they must blow their money on some feature, and the feature was the chapel of King's. Rich men lived in squalor, and at King's they decided to build what we may call a tenement house. It was a mediæval skyscraper, with undergraduates crowded on top of one another, and without the benefit of balconies. When the presiding genius decided to spend money you find a document

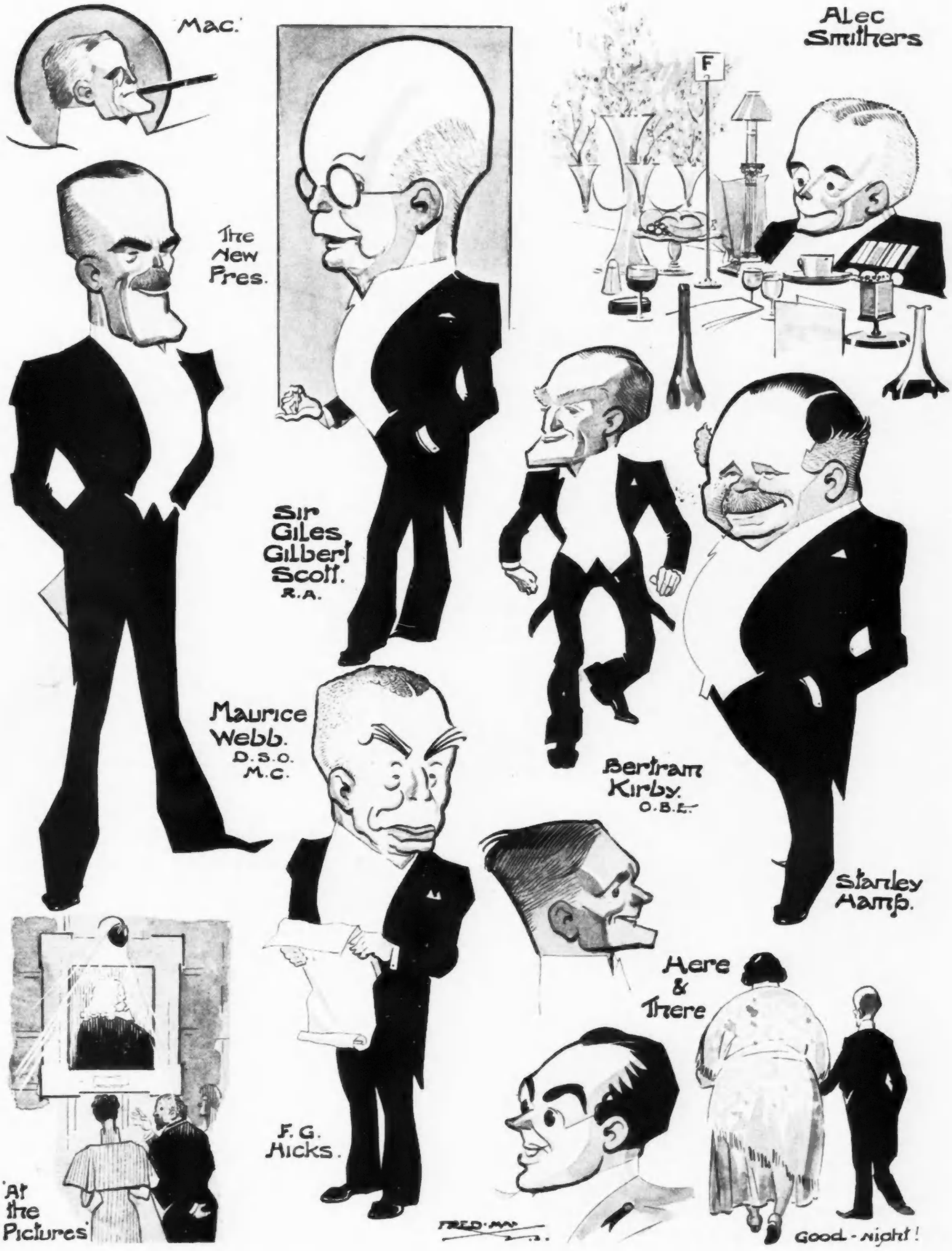
[*Continued on page* 860.

AT THE R.I.B.A. ANNUAL


In the 'Quad'
The Pres. R.I.B.A.
Sir Raymond Unwin.
Arthur Keen.
T. R. Milburn
Near the Head Table.
Everard J. Haynes.
Norman Hurst.
P. G. Blow.
Dr John. A. Pearson.
H. V. Lanchester
At the Reception!
"Saying it with Music"
FRED · MAY

Some of the personalities present at the

CONFERENCE, HELD AT CAMBRIDGE


Mac.
Alec Smithers
F
The New Pres.
Sir Giles Gilbert Scott. R.A.
Maurice Webb. D.S.O. M.C.
Bertram Kirby. O.B.E.
Stanley Hamp.
Here & There
F.G. Hicks.
'At the Pictures'
FRED·MAY
Good-night!

Conference, as seen by Fred May.

which enjoins "Let there be no rich carvings or busy mouldings." They were thought unsuitable for poor men and to men devoted to learning and religion. The most ornamented building in Europe was the chapel of King's, and, starting to build for poor men, they finished up by building a palace, because the architect always found that the work took charge of him, even when he was unable to persuade clients to spend more money. That happened at King's and it went on all through history.

Most of our buildings are not mediæval, but Corpus has a few rooms left built on the plan to which I have referred, and in those rooms there are alcoves for beds. The undergraduates slept on the floor, and the don in the bunk. You find the gardens planted with rosemary and lavender for practical reasons in enclosed courts. The first three-sided court in Cambridge was due to Dr. Caius, and Oxford never had one until much later it was forced on them.

New Buildings at Cambridge

MR. BERESFORD PITE said : To the two generations of Gilbert Scott to whom Cambridge owes so much, is added a third in Sir Giles Gilbert Scott, whose new building for Clare sums up the progress of the era with a delicious grace. The great Library building must perforce make its own standard when its time comes. Emmanuel provides a conspicuous effort to make late Gothic revival effective in the detached building by Leonard Stokes, and Jesus has carried the same ideal further with freedom by Mr. Morley Horder. Sir Aston Webb's buildings at Caius, Magdalene and the Leys School all belong to the same school of resultant revivalism, and Sir Edward Lutyens's new building of Magdalene still abides.

It may be said that the new wonder of modernism, with its fever and baldness, may yet invade the University, but of this it is useless to prophesy. The search for the new expression in art will need to be reinforced by a studious discernment of the spirit which evoked and accomplished the great buildings of the past. Without this serious analysis of motive and simplicity of aim the modern movement may become that which it most deprecates: the simulation of an unreal innocence of heart.

There is a relation of scholarship to art which is not inimical to genius; for this the University can stand witness. For there is at the root of all great architecture a sincerity of purpose evinced in the science and art of all noble building ; this has to be drawn out of the study of the past to provide the stimulus, breadth of judgment, and the motive power in design for which modern architecture looks, and for the lack of which she faints.

THE BANQUET

The banquet was held at Trinity College on Friday night.

MR. THEODORE FYFE, proposing the toast of "The University of Cambridge," said : Ever since 1921, except in one year, the R.I.B.A. has had a similar conference to this in one of its local centres. This year Cambridge was selected because of its incomparable attractions as a University town, and, some of you may think, for the attractions of its surroundings also. I have little time to enlarge on the University, but I should like to dwell on two aspects of it which must have struck many who are here as visitors. One of them is the astonishing recent development of the University —apart from its colleges—in many humanistic and scientific ways. The magnificent donations of the Rockefeller Trust and the enlightened generosity of the Courtauld family have, in particular, made possible the splendidly equipped scientific and lecture room buildings, the new University Library, and the extension to the Fitzwilliam Museum, where the Vice-Chancellor held his reception.

The other but less obvious thing that may have struck some of you is the way that Cambridge has wakened up to its dangers from unwise and over-hasty development and spoliation. Most of us at any rate know that the Cambridge Preservation Society exists and what it means, and some fewer may know what it actually has done.

Mr. Will Spens (Vice-Chancellor of the University) responded.

Sir Raymond Unwin, replying to the toast of "The R.I.B.A. and its Allied Societies," proposed by Professor Edward Bullough (Chairman of the Faculty Board of Fine Arts), said : We owe a great debt of gratitude to the University, and I want to congratulate the University and Mr. Fyfe on the abundant progress of the School of Architecture. In thanking the University I am going to take the usual course of saying that the measure of our gratitude is a foretaste of the good things to come.

"The Town and County of Cambridge" was proposed by Mr. P. C. Blow (President of the Essex, Cambridge and Hertfordshire Society of Architects). Alderman Raynes responded.

"Our Guests" was proposed by Mr. H. M. Fletcher, F.R.I.B.A., and responded to by Sir Donald MacAlister.

ELECTION OF MEMBERS

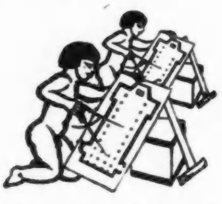
At a recent meeting of the Council of the Institute the following members were elected :

As FELLOWS (4) : Messrs. L. M. Chitale, W. F. Dawson, C. J. F. Martindale and F. R. Freeman.

As ASSOCIATES (14) : Messrs. A. Bailey, A. G. Bazeley, F. E. Bromilow, (Miss) E. M. Comber, J. T. Darch, T. N. Duncan, R. D. Hunt, (Miss) J. G. Ledeboer, J. Lewis, N. S. Lunn, (Miss) Z. T. Maw, E. F. Scaife, A. Smethurst and B. Spence.

As LICENTIATES (13) : Messrs. J. C. T. Cole, R. Dann, H. L. Fox, G. H. Griffiths, A. Hay, G. H. Herring, R. E. Hulse, A. B. Mendis, W. Peter (Junior), H. Pover, D. Y. Rossiter, J. L. Webb and G. C. Young.

COMPETITION NEWS



PROPOSED BATHING POOL AT LLANDUDNO

The Competition Committee of the R.I.B.A. desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A.

The Competition Committee are in negotiation with the promoters in the hope of securing an amendment.

In the meantime members should not take part in the competition.

FLATS FOR STOKE NEWINGTON

The address of Messrs. Howes and Jackson, AA.R.I.B.A., winners of the limited competition for flats at Stoke Newington, is 10, Gray's Inn Square, W.C., *not* Gray's Inn Place, as stated in the assessor's report published in our issue.

A NEW COMPETITION ?

It is probable that the proposed new town hall for Hackney will be the subject of an architectural competition.

Competitions Open

September 1.—Sending-in Day. Proposed Hospital at Surbiton. Assessor : C. E. Elcock, F.R.I.B.A. Premiums: £120, £75, £50 and £25. The conditions, obtainable from A. C. C. Dunn, Hon. Secretary, Surbiton Hospital, St. James's Road, Surbiton, were reviewed in *A.J.* for May 24.

September 11.—Sending-in Day. The Directors of Gidea Park, Ltd., invite designs for five different types of houses (ranging from £400 to £900). Open to members or students of the R.I.B.A. Assessors : Prof. S. D. Adshead, F.R.I.B.A., A. E. Beresford, F.R.I.B.A., Ald. Ewart G. Culpin, F.R.I.B.A., E. Maxwell Fry, A.R.I.B.A., Howard Robertson, F.R.I.B.A., and W. Harding Thompson, F.R.I.B.A. In addition to being paid a fee according to the scale of charges of the R.I.B.A., the authors of the first five selected designs in each class will be paid a premium of £10. Particulars obtainable from Gidea Park, Ltd., The Estate Office, Hare Street, Gidea Park, Romford, Essex. Deposit 5s.

[We much regret that the deposit was inadvertantly omitted from the particulars published in our last issue.—ED., *A.J.*]

September 21.—Sending-in Day. Proposed Town Hall for the Borough of Hornsey. Assessor : C. Cowles-Voysey, F.R.I.B.A. Premiums : £350, £250 and £150. Full conditions, etc., were published in our issue for May 17.

Competitions Pending

Proposed New Council Offices to be erected at Salt Hill for the Slough U.D.C. Assessor : H. S. Goodhart-Rendel, F.R.I.B.A. Premiums : £150, £100 and £50. Conditions have not yet been drawn up.

Proposed Municipal Sanatorium and Craymount Children's Hospital, Belfast. Limited to architects practising in Northern Ireland. Assessor : R. S. Wilshere, A.R.I.B.A. Conditions are now being drawn up by the assessor.

Proposed Municipal Offices and Extension to the Library and Electricity Offices for the Metropolitan Borough of Stoke Newington. Conditions have not yet been drawn up.

THIS ARSHETECTURE

Architectural history will record that one of the outstanding features of post-war building is the number of well-constructed and strikingly designed hotels erected in city suburbs. . . .

Hotels of this kind are not erected with the utility side as the only consideration, and the Princess Hotel, Withington, has been designed . . . to harmonize with Hough End Hall, its neighbour, which is one of Manchester's architectural treasures. . . . The style . . . is, therefore, reminiscent of the old Tudor houses found in the south of England.

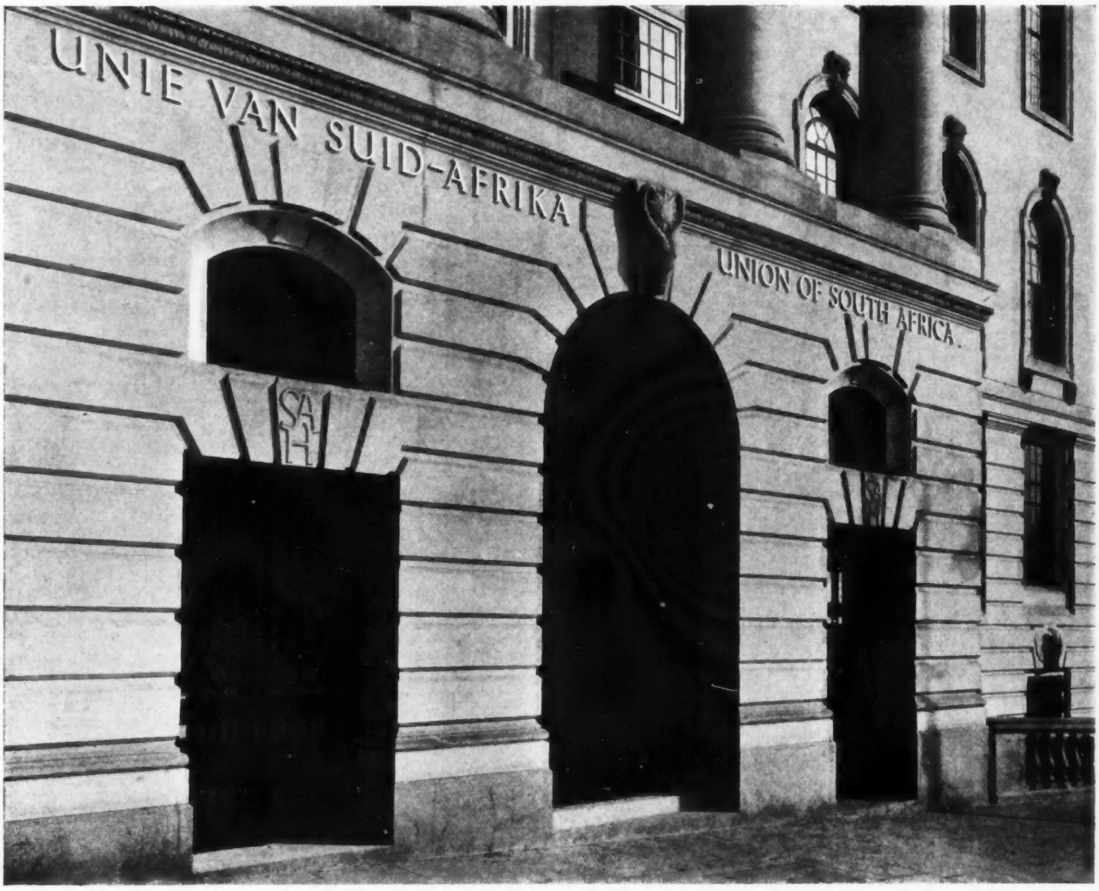
Part of the building is half-timbered in oak, and the gables are faced with elm weather-boarding. The roof is covered with heavy sage-green slates of various sizes. . . .

At night the hotel will be floodlit, and special attention has been paid to external lamps. These electric lamps are of Tudor design. . . .

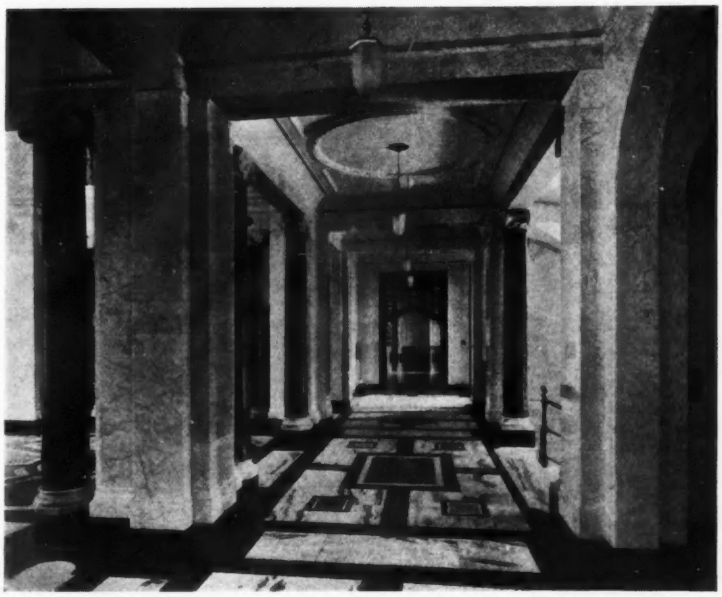
All the rooms and the staircase are treated in old English traditional manner with oak beams in the ceilings and wainscoted walls. . . .

—*From* THE MANCHESTER EVENING NEWS

SOUTH AFRICA HOUSE, LONDON



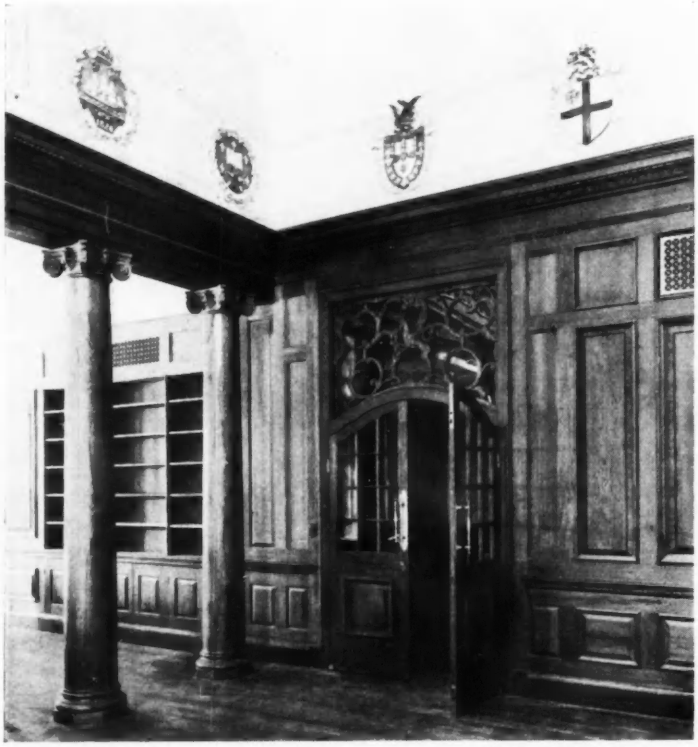
The west front is illustrated, along with plans, in a supplement with this issue. The main entrance from Trafalgar Square, shown above, is under the central portico, which gives emphasis to the High Commissioner's suite on the first floor, just as does the other colonnade, at the Strand corner, to the Conference Room Library on the same floor. Within are a few steps leading downwards to the lower ground floor, and upwards, between columns of green Transvaal marble, to the central hall, around which are grouped stairs, lifts, enquiry office, etc. The walls are of plain grey-white marble, also from S. Africa. From this vestibule runs the longitudinal corridor, shown in the lower view, leading to the Travel Bureau, and to the Visitors' Reading Room, illustrated overleaf, which is provided for use as a common room by South African travellers.



GROUND FLOOR. *Vestibule and corridor to Visitors' Room*

DESIGNED BY SIR HERBERT BAKER, R.A.

SOUTH AFRICA HOUSE, LONDON:

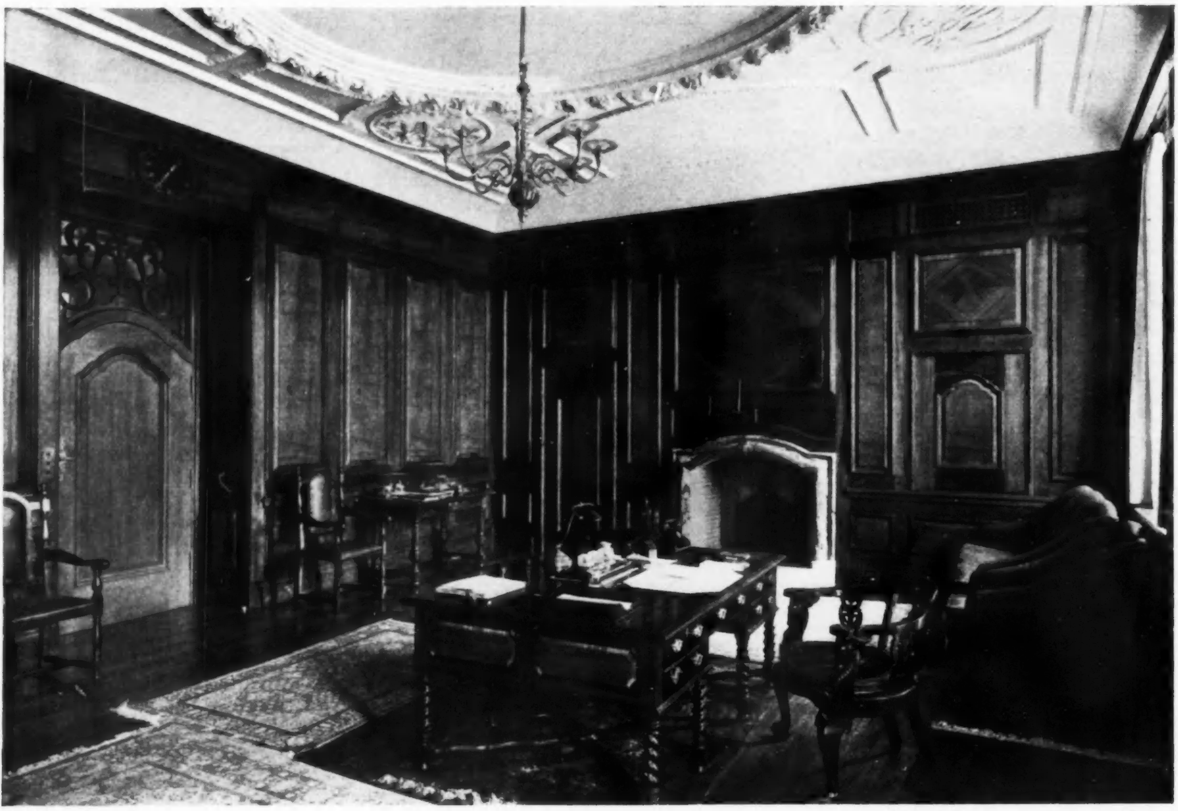


GROUND FLOOR. Visitors' Reading Room.

The Visitors' Reading Room is panelled in teak, and, for the greater part of its length, has a high vaulted ceiling, with a frieze bearing modelled and coloured escutcheons representing the early romance of S. Africa. Elsewhere the Reference Library, Conference Room, illustrated on the facing page, breaks in from the floor above, and reduces the ceiling height; it has an arched gallery looking down on the Visitors' Room, which can be closed by sliding doors.

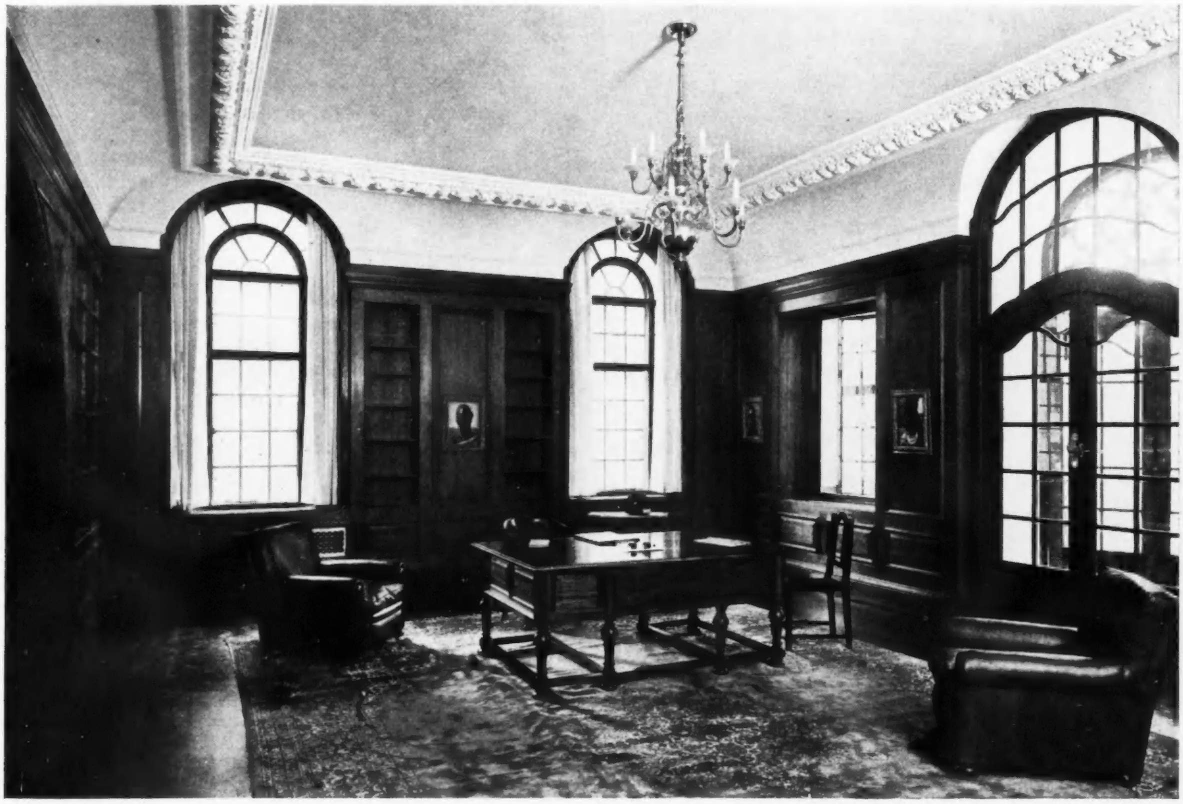
The High Commissioner's room occupies the point of vantage on the first floor, facing the setting sun across Trafalgar Square. It is panelled in stinkwood, and has a ceiling of decorative plaster, and flooring of kejaat. On the fourth floor, and with the same aspect, are the private rooms for the accommodation of visiting Ministers of State; and here the set-back provides a loggia or stoep for the use of these distinguished visitors.

Quantities of marble, tiles and timber were imported from South Africa for incorporation in and decoration of the building. For the principal rooms furniture has been specially designed and made in South Africa; but, from the wood left over from panelling and flooring, ordinary office equipment has been made in London. The building is warmed throughout by radiant ceiling panels, heated by hot water; while the ventilating air, besides being washed, can also be heated or cooled.



FIRST FLOOR. The High Commissioner's Room.

DESIGNED BY SIR HERBERT BAKER, R.A.

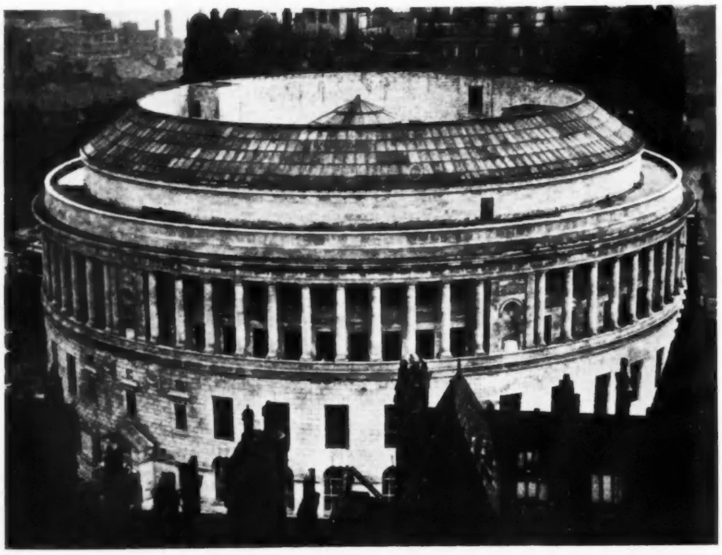


FIRST FLOOR. *The Reference Library-Conference Room.*

FIRST FLOOR. *Library Corridor.*

FOURTH FLOOR. *Vestibule to visiting Ministers' suite.*

MANCHESTER LIBRARY



The new Reference Library at Manchester, which is now nearing completion, from the design of E. Vincent Harris.

LETTERS FROM READERS

RAYMOND WALKER

T. ALWYN LLOYD, F.R.I.B.A., M.T.P.I. (Chairman, National Housing and Town Planning Council)

FREDERIC TOWNDROW, A.R.I.B.A.

ORTHODOX

Our Slum Issue

Sir,—It has been left for Mr. Maxwell Fry, writing in your issue for June 22, to point out that the cost of land has something to do with slum clearance.

Presumably the owners of the foul pens referred to in your slum articles receive rent money from the miserable occupants. If Government has the right to regulate new building development with regard to density and sanitation, there can be no objection to a very simple scheme that would do much to solve the problem of our slums, i.e., confiscation of rent money for insanitary property by the Local Authority.

With the low rents received it is impossible for slum landlords to get a " fair " return on the sums they claim their properties to be worth, and at the same time provide for proper maintenance and repair, let alone any attempts at modernization. Such ownership has already cost the nation much trouble and anxiety ; could not your paper lead the way by at least stating the names of the owners of the slum property illustrated ? Surely such action would not be construed as libellous ? Is there any legal reason why a man should be ashamed of owning slums ?

I would suggest that this nation is in greater peril through our slum kings than America has ever been through gangster rule ; but idle sentimentality can deal with neither problem. Let the country know who owns the slums ; what revenue the slums produce for their excellent landlords ; add some reasonably sound statistics of the cost of the slums as a breeding-ground for disease, and state how great is the cost of regulating the criminal activity that is directly traceable to filthy living.

Let the people know and appreciate the fact that slum dwellers can become legislators : that is the reason for the much-vaunted Continental housing development. Make the slum dwellers understand that each has a vote as strong as the next man's. There is a difference between sentiment and sentimentality ; there is little difference between the idealist and the ineffectual idler, who at this very moment may be living on slum rents.

Unless the National Government and the Royal Institute of British Architects, together with the host of well-meaning amateurs they have collected round a futile policy, get down to the real cause of slum life in double quick time, it will be left for others somewhat more realistic to heal the country of this foul complaint.

Of course, the architects and the town planners must do the work, but it is only accountants who can set the wheels in motion that will one day carry an effectual Land Bill through Parliament.

Slums are a matter of finance ; it is part of the great question of the rights of individual owners, and if, indeed, they have any right, what liabilities to the community do they accept by exercising it ?

I must confess to a feeling of pity for the slum owner ; it must be dreadful to become more and more fearful of the future by each advancing day. I wonder if they do ?

May I conclude by thanking Mr. Maxwell Fry for an article on slum clearance that was at least common sense. He is gentleman enough not to patronize the victim of the slums.

RAYMOND WALKER

Sir,—I congratulate you very heartily on the Slum issue of the Journal.

The information which your special correspondent, Mr. Massey, has compiled and set out so graphically, about the overcrowding and the grave shortage of houses in the six large cities is most striking. When reduced to terms of family misery and human distress, this tale, reinforced as it can be from countless examples from other towns and even villages, is surely the greatest stain on our national record. Thanks to the lead given by the Prince of Wales, the Minister of Health and others, the public conscience is now thoroughly aroused and there is a better chance than we have seen for a long time of drastic remedies being applied. But it is essential that the facts and figures of the slum problem should be constantly before the public, and it is for this reason that one welcomes so cordially the fine service which you are rendering.

T. ALWYN LLOYD

Sir,— Congratulations on your Slum number. It is magnificent in spirit, purpose and technical production. The profession as a whole should support the lead you give and begin to study the housing conditions of the working classes. I do not mean from an architectural point of view (for they have been messing about with that quite long enough), but from the point of view of the social reformer and student of affairs.

There should be at least one architect on every municipal or county council in the country, and at least a dozen in Parliament. There is not an earthly chance of our replanning even bits of our cities or of abolishing the slums under our existing system.

To talk of abolishing the slums in five years is merely eyewash. In five years' time we shall be exactly where we are now. Land is the crux of the whole problem. Mr. Maxwell Fry touches on it in his splendid article.

FREDERIC TOWNDROW

Architecture as a Trade

SIR,—I was very much interested in "Iconoclast's" third article on the R.I.B.A., but I do wish he would consult his facts—the statement about the Associateship, for example. He says that "the degree of Associateship thus ceases to be a mark of experienced competence and becomes a purely academic diploma."

The Associateship has never been a mark of "experienced competence" any more than in the case of the Barrister called to the Bar after passing the Bar examination, or the Medical Student's admission to the register after passing the professional examination.

The paragraphs about the representation of the provinces in London are curiously out of date. They would have had some truth in them twenty years ago. He says that "the machinery whereby the provincial architect can influence the high counsels at headquarters is still remote," and he speaks of work upon the Institute Council as one of "a small provincial minority." I suppose he cannot have noticed that at this moment the provincial members of the Council are in an actual majority and not in a minority at all; that of the six leaders of the Council, the President, Vice-Presidents and Hon. Secretary, three are provincial and that the conditions of which he complains ceased to exist many years ago.

I am not, of course, arguing with regard to his concrete suggestions. He may or may not be right in regard to them, but they give me the impression of curiously inadequate knowledge of the facts. When, for example, has "a vast comprehensive scheme, the merit of which there is no time to investigate," ever been "sprung upon district membership in a matured state?"

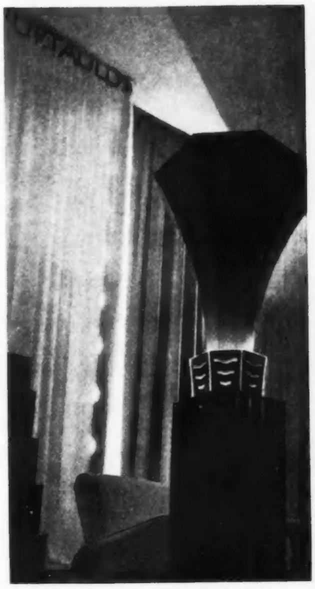
ORTHODOX

[*We regret being compelled again to hold over Iconoclast's fourth article in the series, "Architecture as a Trade," owing to pressure upon our space.*—ED., *A.J.*]

THE INTELLIGENT WOMAN'S

GUIDE

To the Exhibition of British Industrial Art in Relation to the Home (until July 12)



Lights in the Main Hall.

Patron :
H.R.H. Prince George

President :
Lord Gorell

Chairman :
Christopher Hussey

Vice-chairman :
Frank Pick

Executive Committee :
Noel Carrington
Gordon Forsyth
V. H. Goldsmith
Miss Muriel Harris
H. de C. Hastings
Oliver Hill, F.R.I.B.A.
G. R. Hughes
Major A. A. Longden
Charles Marriott
Oswald P. Milne, F.R.I.B.A.
Paul Nash
Howard Robertson, F.R.I.B.A.
Miss Dorothy Todd

[*The fact that women of an almost sub-human intellectual status are encouraged to air their views on architecture in the lay press, often blinds architects to the value of the feminine contribution. Actually, the normal woman, when unpolluted by the sentimentalisms of man, is an astute critic and a wise buyer, and is almost automatically an apostle of fitness for purpose. Not without consideration of the foregoing matters, we print an intelligent woman's views on the B.I.A. This is probably a feat unique in contemporary journalism. A technical survey of the Exhibition will be published next week.* —ED., *A.J.*]

COMING in from Regent Street to Dorland Hall you must leave behind you on the doorstep all your ideas about design. Then you will be ready to make an intelligent estimate of new ideas.

From the moment you enter, there is a stimulating atmosphere of pure inventiveness, and all this inventiveness is about homes, furniture and the things women use and care for. Women know very well that we are living under new conditions that call for new ideas. We want twentieth-century ideas, twentieth-century methods, from architects, designers and manufacturers, and we want to support them. Let designers only have good ideas and women will readily appreciate them, and will make their critical estimate from the point of view of efficiency and economy.

Machinery is creating a new world for us. The cheap, mass-produced article is typical of these days, and we are progressing towards a time when everyone can afford an efficient home—if only artists make it their business to work hand-in-hand with machinery. It is important to call attention to this fact about the twentieth-century style—that by sheer majority the mass-produced articles are our style today, and therefore what women will look for in this and in subsequent Exhibitions is a preoccupation of designers with mass-produced things. It is not enough for an artist, having made a millionaire's suite, to be satisfied that his ideas will eventually filter through to the design of commercial furniture. The cheaper furniture must be deliberately designed in very close relation to the cheaper and smaller home.

It will now be clear, I hope, what my point of view as a woman is.

Beginning at the Main Hall, there are important details that must not be missed.

The Dryad Metal Works have a number of beautifully simple door handles, below two shocking light standards. *Pilkington Brothers* have dull white Vitrolite tiles on the floor of the Hall, which, though slippery, is very lovely.

The Dining Room, designed by Sir Ambrose Heal, exhibited by Heal's, is the first ensemble, and glitters with the announcement of steel furniture in the modern home. Women like metal tubes, because they make no dust traps. But these table and chair legs do not seem to me to be designed with neatness and cleanliness in mind. The steel frames are heavy and far too elaborate, in a way which defeats the whole purpose of steel.

The Bedroom, designed by Raymond McGrath, exhibited by Trollope's, is inviting, but, for obscure reasons, the room is crowded ; the scale of the furniture in relation to the room accounts for this, perhaps.

The Living Room, designed by R. W. Symonds, exhibited by Frederick Tibbenham, makes an interesting attempt to solve the problem of the fireplace. Its electric fire is out in the room, and circular, so that the number of people who can sit round it is doubled. This obvious advantage loses some of its practicability from the fact that the fire is fixed. Being fixed, it has to be put in a corner so as not to block up the room. As a result the flexible quality of a movable fire is lost, while the increased " fire-room " is interfered with by the corner.

The Study, designed by D. R. Russell, exhibited by Gordon Russell, is a large room containing excellent steel filing cupboards and shelves by Messrs. Sankey Sheldon. They are painted, washable, well-proportioned, and they encourage keeping papers and finding them again. But they are very expensive.

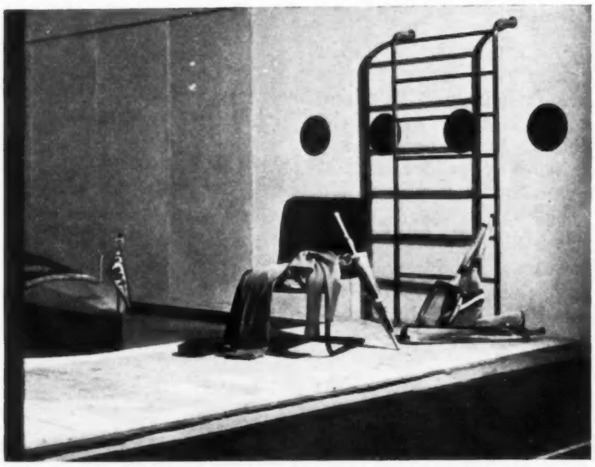
The Minimum Flat, designed by Wells Coates, exhibited by Isokon, is *not* large. It is the work of an architect who accepts with admirable realism the fact that we have a large population : a population that has to live in small spaces, but wants to live in them hygienically, comfortably, cheaply and pleasantly. This is, in my opinion, the most intelligent design in the Exhibition. It has compact fittings in the kitchen of 5 ft. by 4 ft., where everything, including the refrigerator, is at hand. It has also an electric radiant fire, designed in a unit with a radio and a cocktail cupboard ; a dining table veneered, but not highly polished, so that you need no cloth ; and sliding doors. There is nothing superfluous. The apparently impossible task of planning a flat in 17 ft. 8 ins. by 15 ft. 6 ins. manages to look effortlessly done. These flats are to let in Hampstead for £96 a year each, which includes service, heating, hot water and fittings.

Bathroom, designed by Oliver Hill, exhibited by Twyford's. It is sensible to reform the shape of a bath like this, by fixing the water supplies and waste fittings on the wall at the side.

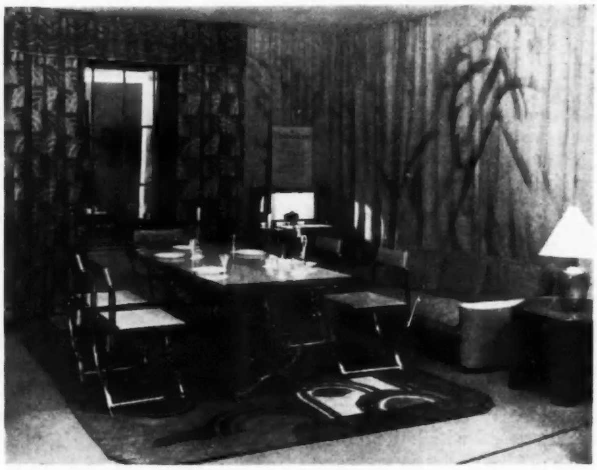
Week-end House, designed by Serge Chermayeff, exhibited by Whiteley's. This bungalow house is luminous, with an effect of being hardly materialized. It is, however, composed of a light steel frame and a great deal of glass and will not really melt away in

(*Continued on page 870*)

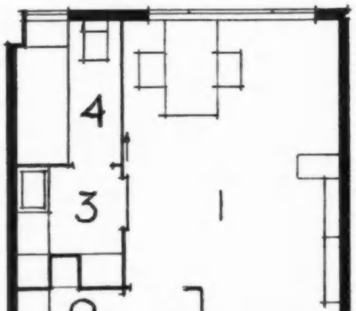
AT THE B.I.A.



Exercise Court (Ex. No. 55). Designed by Oliver Hill (architect for the Exhibition) and Serge Chermayeff. In the foreground is the end of a grass-green hard lawn-tennis court; in the background a swimming pool.

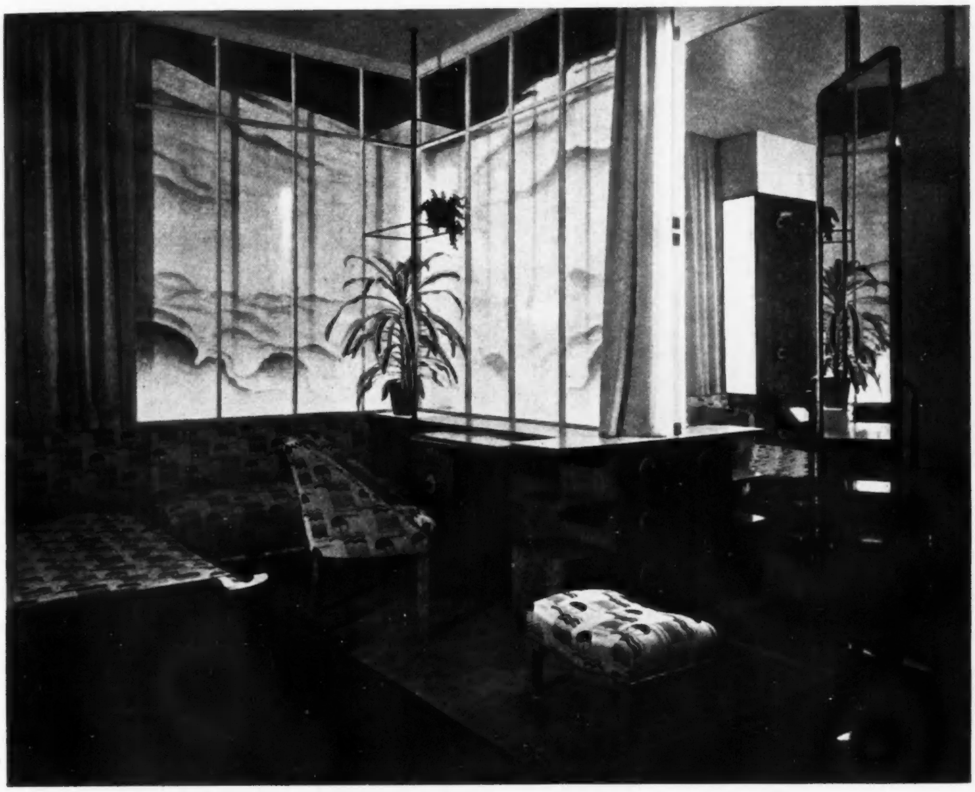


Dining Room (Ex. No. 46). Designed by Sir Ambrose Heal. The furniture includes certain needs of a sitting-room as well. The dining furniture is in Australian walnut, white sycamore and chromium-plated steel. "Self" colours predominate in hangings and carpets.

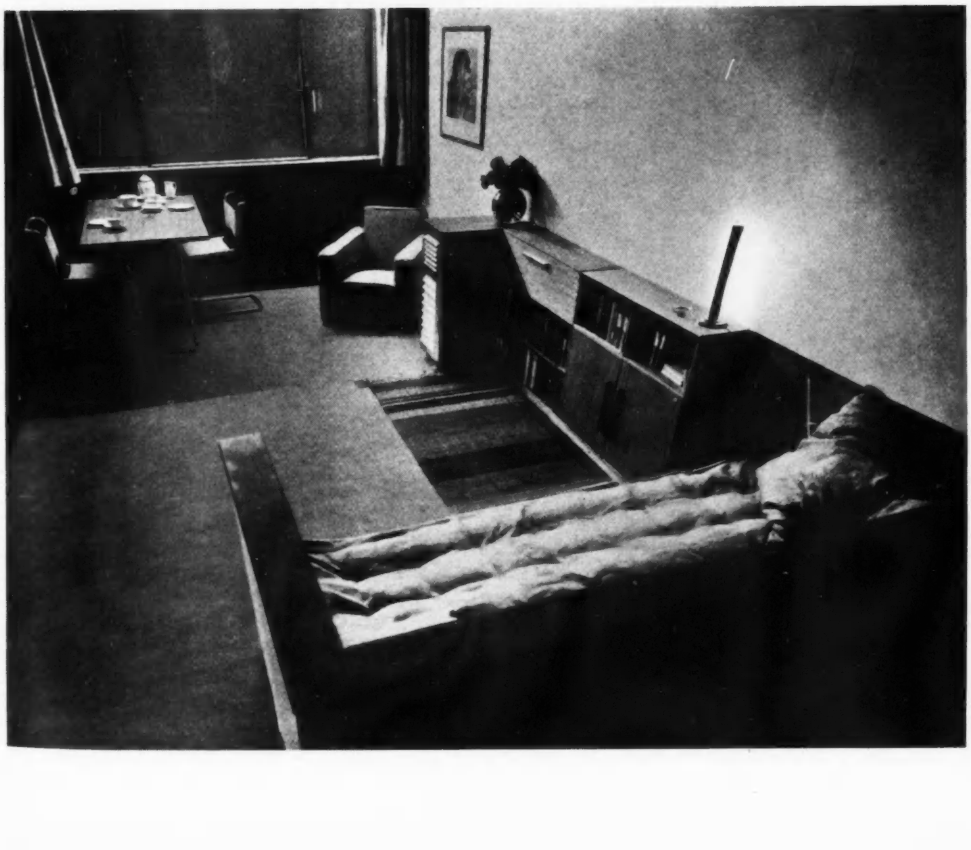


The Minimum Flat (Ex. No. 50). Designed by Wells Coates. The following are the references on the plan: 1, living room; 2, kitchen; 3, dressing room; 4, bathroom. The living room is illustrated on the facing page.

THE MINIMUM FLAT AND OTHER EXHIBITS

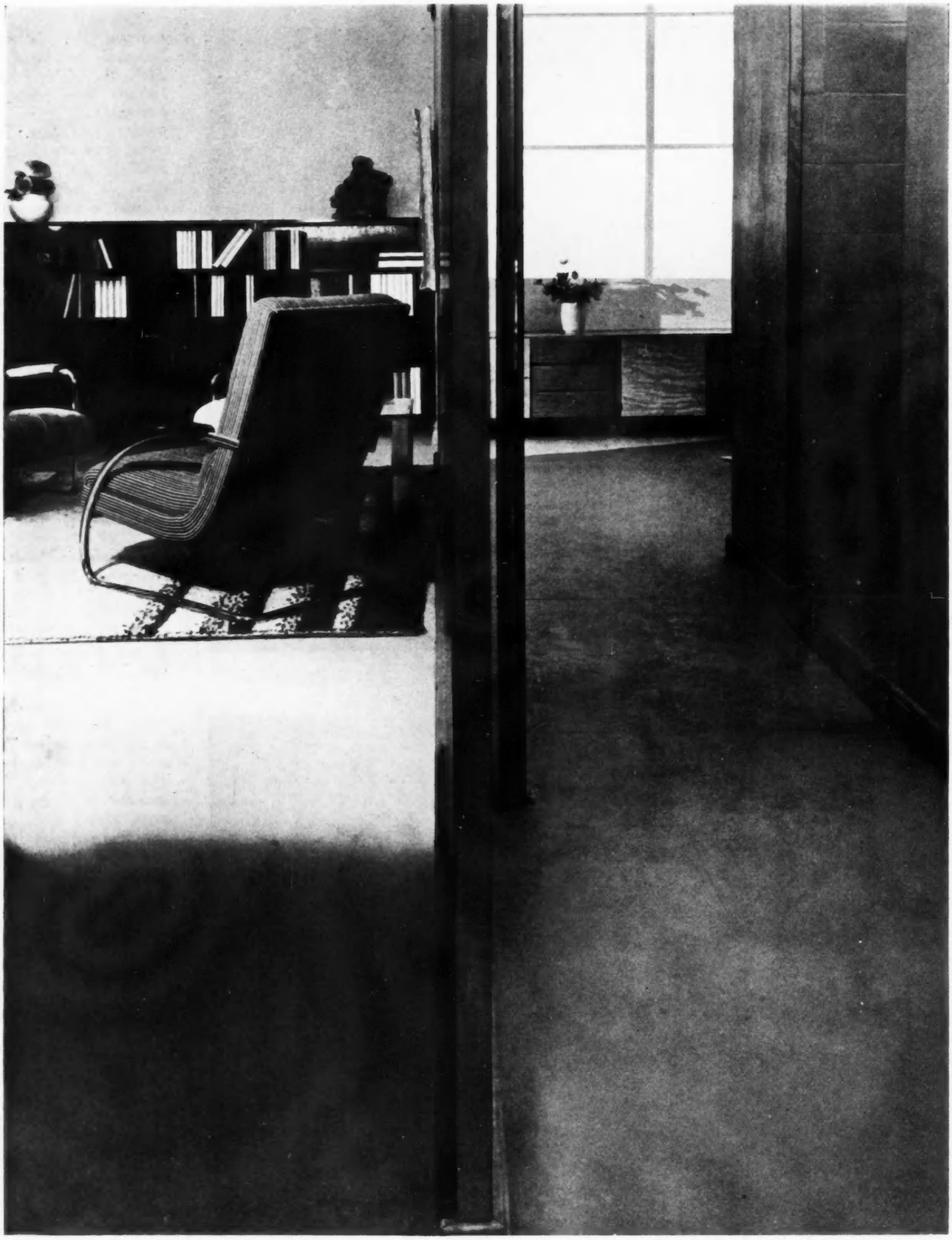


Bedroom (Ex. No. 47). Designed by Raymond McGrath. Gone is the bedroom suite, with its permanent encroachments on floor space. The room is in a modern building and the furniture is built in; it includes a writing-desk. The windows are metal casements, the wall covering and the upholstery fabric are designed by the architect, the joinery is in ash. The carpet is black and vermilion, and the general colour scheme, lemon-yellow and chartreuse.



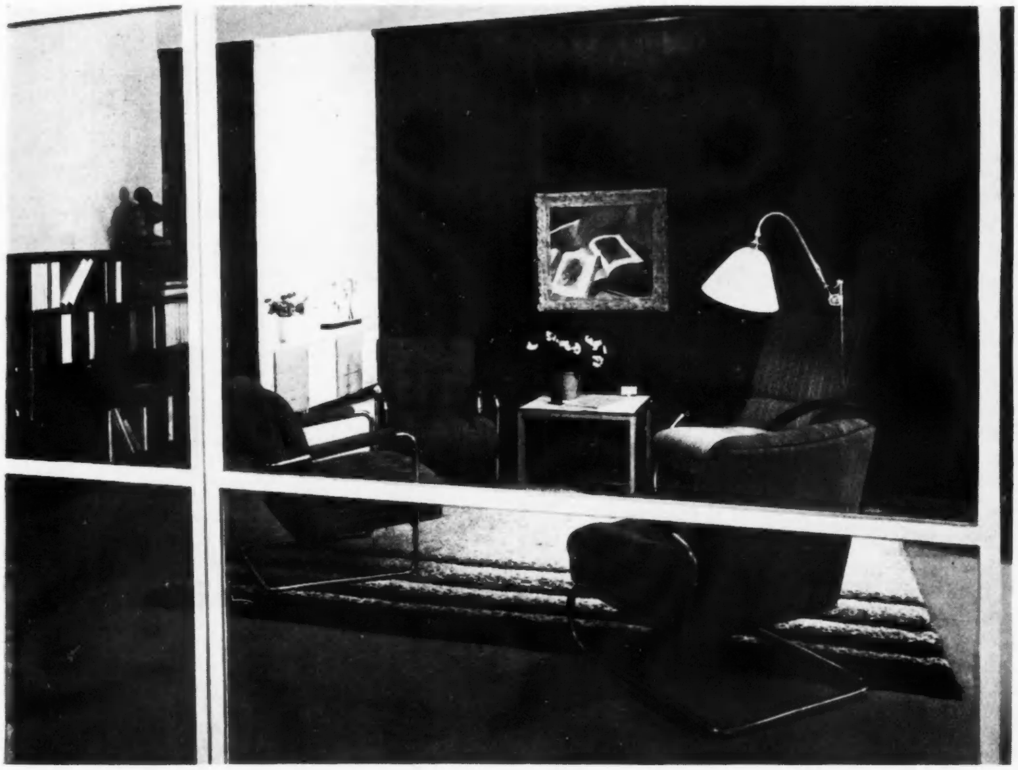
The Minimum Flat (Ex. No. 50). Designed by Wells Coates: the living room. This exhibit comprises a complete replica of one of the smallest type, for use by one person, in a block about to be erected at Hampstead. The plan appears on the facing page. The rental has been fixed at £96 p.a., furnished, but exclusive of chairs, book units, electric fires, curtains and furnishing fabrics. This total is made up thus: rent, £52, rates and taxes, £18; central heating and constant hot water, £6; service, £20 (including cleaning and washing; there is a central kitchen with trollies, service lifts, etc.) The living room has a bed-settee in an alcove, a mahogany dining-table which slides into the corner, four stacking chairs and two plywood book units and electric fire-cum-radio, forming a "hearth scene." These Isokon units were described in "Trade Notes" (A.J. June 8, 1933); both the two top units are among others since standardized.

AT THE B.I.A.: THE WEEK-END HOUSE:

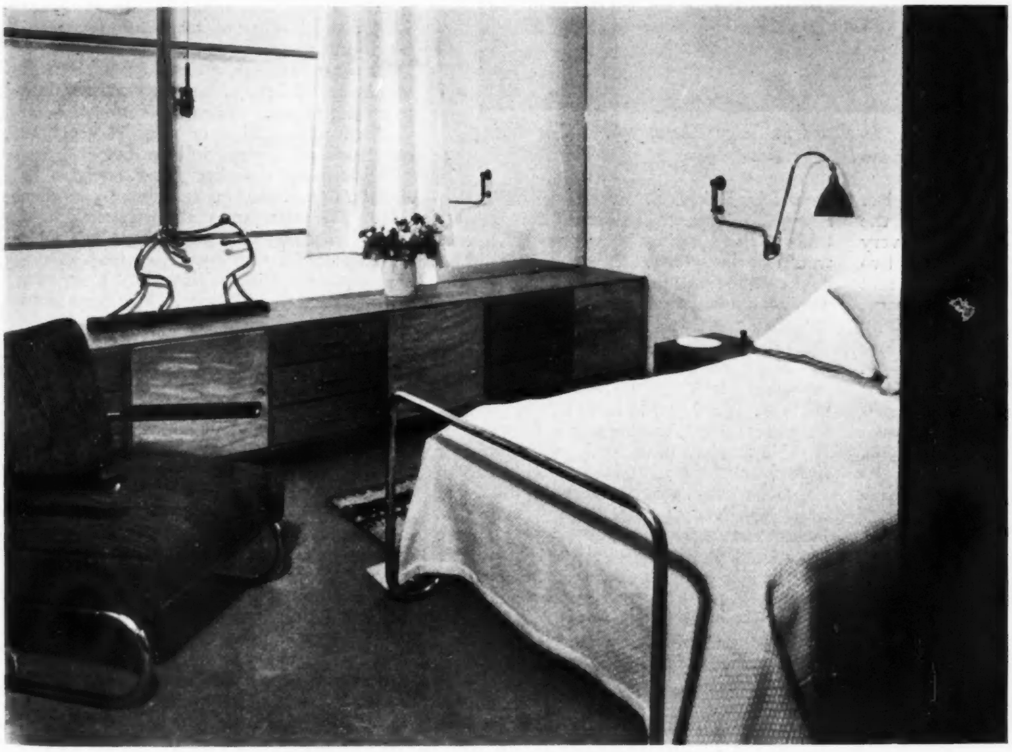


The Week-end House (Ex. No. 52) has an ingenious plan, reproduced on page 870. To take this view the photographer stood at the front door. On the left of the partition is seen the living room; on the right, the main bedroom, with the bathroom adjoining. There is another bedroom in this branch, and, in the house as built, the kitchen leads out of the sitting room, alongside the camera.

DESIGNED BY SERGE CHERMAYEFF

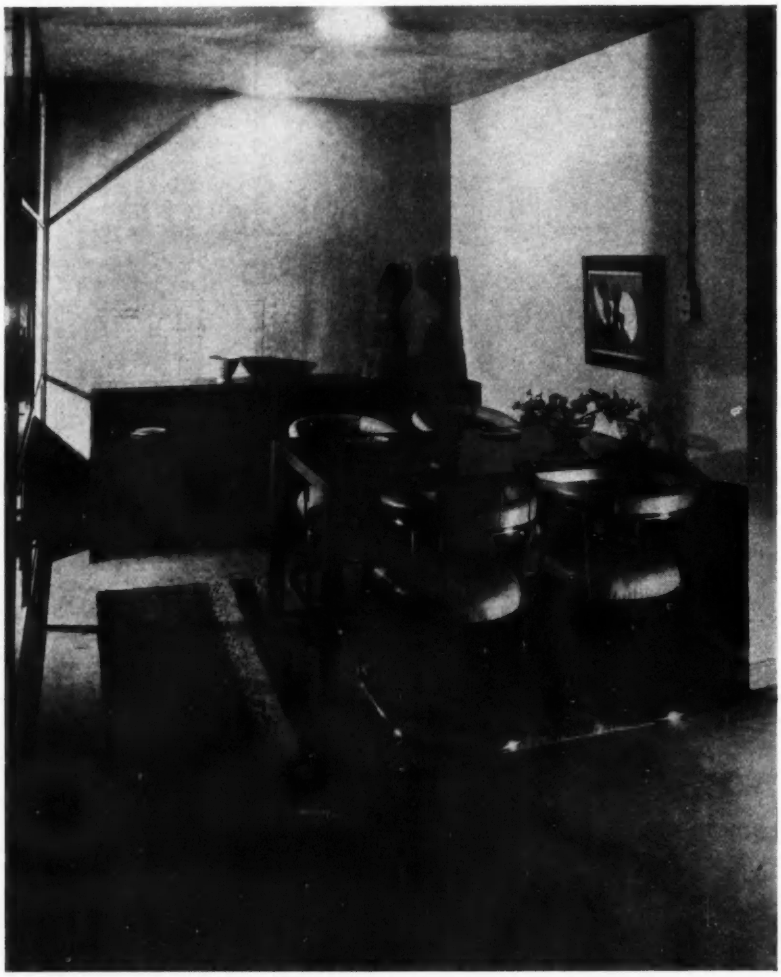


The Week-End House (Ex. No. 52 : steel-tube furniture, 54) : the living room. The large terrace window, through which this photograph was taken, slides away, in two sections, into a cavity in the kitchen wall. The dimensions throughout the house are designed for a uniform, economical constructional unit, capable of accommodating the furniture units. Light steel framing is used, with hollow tile floors ; the outer walls are of hollow building blocks, plastered internally on building board, and rendered externally. Interior partitions are of two thicknesses of plywood-faced building board ; stanchions are painted or enclosed in light chromium-plated casings.



The Week-End House (Ex. No. 52 : furniture, 53) : the main bedroom. This is a square apartment, the standardized furniture fitting along two walls, as indicated on the plan. This "Plan" furniture is designed on five basic units, of trestle, drawer, box, shelf and link type, with additional wardrobe, single, double and treble units. The standard finishes are light and dark oak, with birch veneered doors at request, and five standard colours, intended to harmonize with textile and other products of the same firm. The Week-End House can be constructed of identical structural units in five different types : single bungalow, semi-detached bungalows, superimposed two-family flats, two-floor house, block of four flats.

AT THE B.I.A.: THE WEEK-END HOUSE;



The Week-end House (Ex. No. 52). Designed by Serge Chermayeff. The dining recess in the living room.

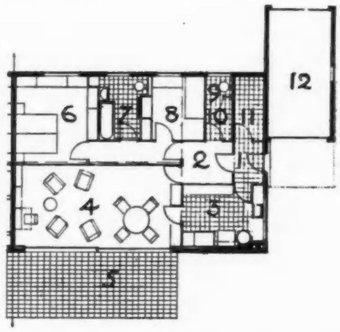
the wind after the week-end as the last fragile conversations break up on the terrace and the people go. It is very simply and effectively planned, in two halves, one half long dining-room and kitchen, and, behind a partition and passage, two bedrooms and a bathroom, the partition facing the centre of the side entrance door and dividing the traffic to back and front. There is much space and light.

Plan Furniture, designed by Serge Chermayeff, and Isokon Furniture, designed by Wells Coates. This is the sort of ably-designed, cheap furniture that is welcome. Both Plan and Isokon furniture are made on the unit principle, the units being combined at will as cupboards, bookcases, desks, etc., for various settings. It is a good way of making the standard article adaptable to personal needs.

Ascog show glass lighting fittings of simple shapes. There are few of the dismal jazz-modernistic pink and yellow glass fittings of two years or so ago.

The Dining-room, designed by Oliver Hill, is a demonstration of the use of polished Perrycot Portland stone of great beauty, the walls etched by Eric Gill. But a floor of stone is bound to be noisy, and to be waited on at table in this room by heavy-footed footmen would be disturbing. The chairs would be cold comfort without cushions. It is all a lovely colour and quality, but the idea of stone furniture and floors seems to me dubious.

Silver and Clocks. This section is far below the standard set by the Exhibition. It exposes the lack of new ideas in this particular field. And yet, to have silver, particularly table silver, women will endure much. If table services were made of celluloid or malachite, there would be no cleaning to do, but women would scorn the idea. It must be silver or plate, and perhaps the lack of competition accounts for the failure to produce new designs in silver. If we are asked what is our grievance with the old designs, it must be plainly admitted that, if they are old enough, they are sometimes enchanting, but if they are not they are bad, fussy, and out of place in the contemporary home. Clocks suffer from indefatigable personality. The mania for distinctiveness is not always limited by the need to read the clock easily.



The Week-end House (Ex. No. 52). The following are the references on the plan :

(1) *Entrance Lobby*; (2) *Hall*; (3) *Kitchen*; (4) *Living Room*; (5) *Terrace*; (6) *Large Bedroom*; (7) *Bathroom*; (8) *Small Bedroom*; (9) *W.C.*; (10) *Cloaks*; (11) *Fuel Store*; (12) *Garage.*

Table Pottery is unimaginative, avoiding vulgarity. *T. G. Green and Co.* show honest kitchen ware. The solid square cups are not at all ungraceful, though not aiming at grace. On the whole, it is disappointing that designers produce so much peasant pottery. The saturation point has surely been reached. In a Minimum Flat or a Week-end House, peasant pottery is the last type of design to choose.

The Panel of Carter Tiles proves that tiled walls need not be associated only with lavatories.

Cellulin Flooring has a range of good, plain colours.

The Wall Glass Exhibits do not seem to show that coloured mirror glass compositions are a happy invention.

James Powell and Sons, Whitefriars Glass Works, show some of the best glass jugs, bowls and vases.

The Glass Furniture, designed by Oliver Hill, executed by Pilkington's, is a stunt appropriate to an exhibition. The gun-metal coloured wall in plain strips of glass shows how effective a plain glass wall can be.

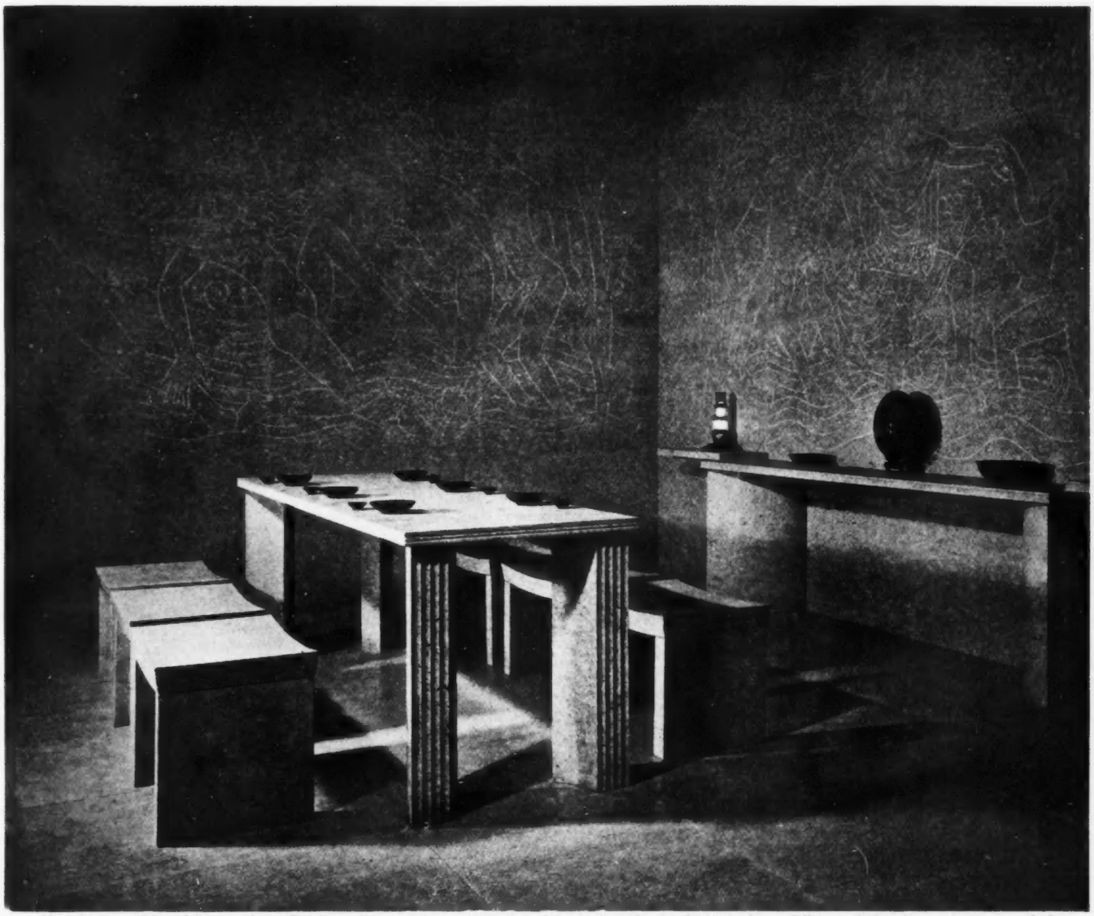
The Study of a Ruling Prince, designed by Arundell Clarke, disarms criticism by its nice title. The settee and chair are excellent.

The Wilton Royal Carpet Factory show their very successful rugs by their group of designers, and *Marion Dorn* has four new curtain and chair fabrics. Her rugs from the Wilton factory are some of the loveliest things in the Exhibition.

The Nursery Ensemble, designed by Oliver Hill, reminds me of the colourful paint phase of decoration, here revived for children. There is enough colour in the pictures, samplers and toys. The furniture and walls should be plain, as a background for the goings-on. Presumably children are expected to grow up to like the sort of room we like. The green blackboard—essential toy!—is fixed in the bed alcove, where a child can get out of the way of others to draw. It is one of the really excellent toys by Mr. and Mrs. Abbott.

Textiles have made so much advance in the last decade that we are no longer surprised to see good printed and plain fabrics at the shops. Nightmarish cretonnes and upholstery fabrics still exist, but there is an encouraging number of firms served by

STONE DINING ROOM; PRINCE'S STUDY



Dining Room (Ex. No. 135). Designed by Oliver Hill (architect for the Exhibition). This exhibit is entirely carried out, including furniture, in polished Perrycot Portland stone in the form of thin slabs. The walls bear incised drawings by Eric Gill.

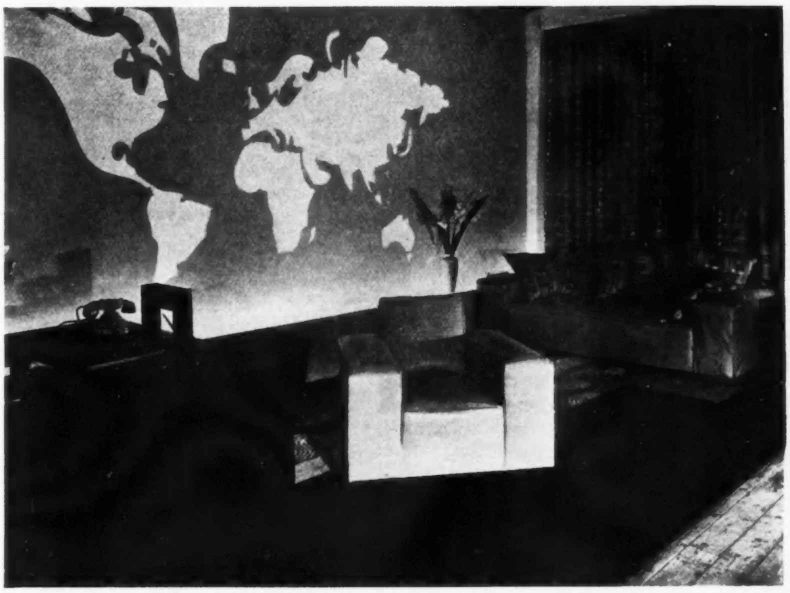
modern designers. This is due, I believe, to women. Women have demanded modern fabrics for their clothes, and have dictated their terms to the manufacturer.

Alan Walton has fine designs by Frank Dobson and Duncan Grant.

Raymond McGrath's Finella Wallpaper, exhibited by John Line, is simple but subtle, and suitable for many purposes.

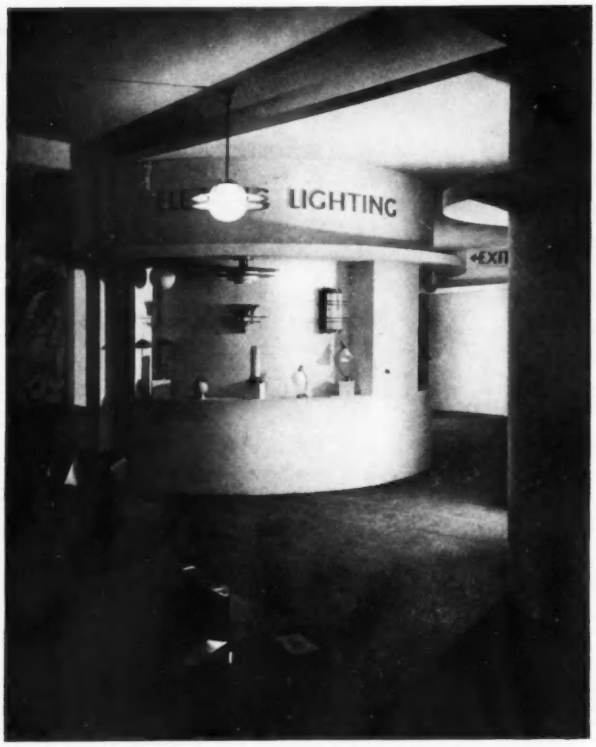
National Gas Exhibit. It is an excellent thing to be able to see the new gas equipment offered to the modern house. Unfortunately, there is no similar electrical section. The gas-fire today is a vastly improved affair. Flat inset fires with metal surrounds please me, but the spiral burners do not change, and this seems a pity. There is an *Improved Bowl Boiling Burner (Parkinson)* that everyone will want to buy. It catches water that boils over in a bowl beneath, and it is perfectly good-looking. A new *Ewart* geyser, a plain cylinder, painted cream colour, is notable.

The Kitchen and Equipment Stand, designed by Mrs. Darcy Braddell, exhibited by Smith and Wellstood, is admirable. The kitchen is definitely too large for a modern private house. However, the furniture might be compressed into less space. *The Aga Kitchen, designed by Mrs. Darcy Braddell,*



"Study of a Ruling Prince" (Ex. No. 1165). Designed by Arundell Clarke. Settee and chair upholstered in washable hide; the desk is veneered in Macassar ebony.

AT THE B.I.A.: LIGHTING; TEXTILES



Light-fittings section (Ex. Nos. 110—132). Exhibition architect: Oliver Hill. Herein are displayed selected modern designs of ceiling lights, wall brackets, pendants, standard and portable lamps for every purpose.

CONNOLLY BROS
OLD GLAMIS FABRICS

Textiles section (Ex. Nos. 1180—1191). Exhibition architect: Oliver Hill. Here are shown damasks, tweeds, linens, printed cottons, repps, chintzes and art silks, many of them bearing the names of well-known designers.

exhibited by Bell's Heat Appliances contains the Aga Cooker, which is expensive, but uses the minimum of fuel, and cooks on the right principle. The *Monometal* sink and draining tray in one piece is obviously a good arrangement.

The Gas Kitchen, designed by Wells Coates, has a sink with long, extended, sideways-moving taps. They are queerly attractive, and are certainly useful. The long window is excellent. Kitchens need large windows.

In the kitchen, above all, women are everywhere demanding the maximum of efficiency and cleanliness, and it is extraordinary how the modern kitchen is becoming a pleasant workshop. We mean to have it so, and what we mean to have must be supplied.

HIGHER BUILDINGS FOR LONDON

The British Steelwork Association's Proposals

Following are some extracts from the British Steelwork Association's Memorandum to the Advisory Committee of the L.C.C. calling for higher buildings for London.

IT is suggested that this section of the Act should be replaced by a bye-law or regulation giving the right to construct higher buildings provided that they are of fire-resisting construction throughout and equipped with modern fire-fighting appliances, and provided that the upper stories are set back to give light and air to surrounding streets, and that due attention is paid to the flow of potential traffic to and from such buildings.

Section 51 (1) of the London Building Act, 1930, which it is proposed to alter, reads as follows: "A building shall not be erected of or be subsequently increased to a greater height than 80 ft. (exclusive of two stories in the roof and/or ornamental towers, turrets or other architectural features or decorations) without the consent of the Council."

The advantages that would accrue from the rebuilding of selected sites under such improved conditions may be considered under the following heads:—

TOWN PLANNING AND ARCHITECTURE

To quote the Report of the Royal Commission on Transport (page 205), "in many parts of London there are areas honeycombed with small streets and lanes, useless for traffic purposes. Wholesale redistribution of the area covered respectively by streets and buildings would, in such cases, replace small, narrow, and useless streets and the type of building that alone is possible in them, by fewer but broader roadways and buildings of a kind that would increase and not diminish the accommodation."

The stimulus for the rebuilding of areas such as these may come from a public authority, which could at great cost purchase large areas of land and demolish buildings already in existence, thus securing the power to "town-plan" an area and rebuild that area in reasonable architectural taste, or it could be brought about by private enterprise where the permission to erect a reasonably high building would provide the incentive for the acquisition of large and adequate sites and the surrender to public use of such amount of frontage as would safeguard the necessary traffic facilities.

Rebuilding on these lines would mean the replacement of old, probably insanitary, and certainly fire-hazardous property by modern, fire-resisting structures.

Fortunately, to bring into focus the development we have in mind is not a difficult matter. There is in our midst at least one building of the type which satisfies all reasonable claims which a public authority may demand. Such a building is the Underground Railway building in Westminster, built to a total height of 180 ft.

How does this building satisfy the essentials of social amenities, town-planning, fire-resistance and traffic?

On the score of social improvement one must admit that for light and air it is excellent. For hygiene and fire-resistance one need only compare it with the buildings it has displaced. Its construction is of steel and stone-faced brickwork and its combustibility (having no timber partitions and no timber window frames) is negligible.

Of its architecture there is little need to speak, except to remind oneself that it was awarded by the R.I.B.A. the London Architecture Medal in 1929.

Where it fails to develop its full value is on the economic side.

Despite considerable sacrifices of space to the common good and to every consideration of its tenants, the occupation of the top stories is not permitted within the existing terms of the London Building Act.

The Underground building, as an example of town-planning, points the way to the rational reconstruction of London ; it throws into vivid emphasis the advances in modern architectural layout which the authorities might well seek to see established for the whole of London.

It will be recognized that the impulse to all commercial building is economic and that economic methods of construction and a freedom to develop earning space must not be unreasonably thwarted.

The restrictions on earning space of buildings are too apparent in London to require emphasis and are such that every cubic foot of space has to be squeezed into service, and buildings have to be driven three and four stories underground in order to secure usable and suitable accommodation on a given site.

TRAFFIC

Just as in the case of fire, so in the question of traffic ; uninstructed criticism is apt to attribute traffic congestion to the higher building. In point of fact, however, the high building is the one factor which if properly pressed into service can free us from the mistakes of the past.

SOCIAL AMENITIES—LIGHT, AIR AND SMOKE NUISANCE

In respect of the provision of light and air, there have been advanced against the high building arguments which will quickly be rectified by an inspection of the Underground building. A great deal has been written about the incidence of the "angle of the sun" and far too little about the bad conditions of light in the narrow streets, which conditions only progressive city planning can remove. How does the high building affect light and air? With a high building properly stepped back, as shown in the illustration, the effective light reaching the roadway and adjacent buildings is much greater.

But to these advantages of better light and air must also be added the great advantages of the modern centrally-heated building in eliminating smoke and soot. One of London's worst problems is the smoke nuisance, and the most promising solution to this lies in the great contribution which the modern large building can make towards obtaining a pure atmosphere.

FIRE PREVENTION

The question of fire prevention is far too often regarded merely from the angle of the alleged difficulty in dealing with fire in rooms over 100 ft. above ground level.

But the proper manner in which the fire hazard should be regarded is rather in comparison with the much greater hazard which a modern building displaces by the demolition of its part-timber Victorian predecessor.

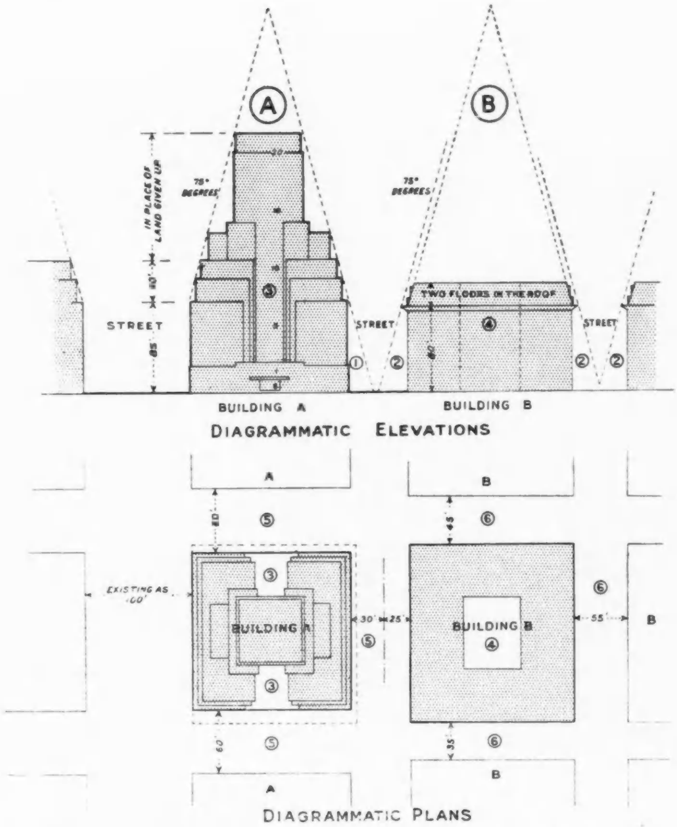
London rebuilt on the lines of modern blocks such as Bush House is surely much safer than the London of narrow part-timber buildings, often very difficult of access.

In a modern fireproof office or apartment building the contingency of fire is itself very remote, and even small as it is, can be met by permitting only incombustible furnishings above a height of, say, 100 ft. Buildings must, after all, represent an insurable asset, and the ordinary commercial safeguards of insurance as a factor operating to reduce fire risks will play an important part in securing their safety.

Admitting the limitations of the London water mains, there is nothing whatever to prevent architects and hydraulic engineers from designing and equipping a building so that fire prevention is fully catered for by :—

(1) Fireproof construction, with fire towers. (2) Incombustible materials and fittings above a height of 100 ft. (3) Set-back upper stories, to give fire steps. (4) Rising mains, booster pumps and tank system ; and (5) Sprinkler installation if required.

An economic urge is necessary for the replanning of London. A vast expenditure of capital is necessary if the Metropolis is to be rebuilt on the lines of wider arteries and open spaces, with more efficient working accommodation. But this capital will only be attracted to new building enterprise if the economics of rebuilding are firmly established. Building regulations should, therefore, be framed to encourage the replacement of inefficient and out-of-date areas by modern constructions.



One of the two diagrams reproduced in the British Steelwork Association's Memorandum to illustrate their proposals for the amendment of the London Building Act to permit of the erection of higher buildings in London. It bears the following title: Building A (new)—(1) Higher buildings will not reduce light and air to streets (all set-backs within angle of 75°). (3) Light wells open to street give better light and air to all. (5) Wider streets for increased traffic. (7) Larger and more compact buildings. Available cube (this example) increased to 2,970,000 cubic feet. Building B (existing)—(2) Existing cornices, dormers, etc., darken the streets. (4) Interior light wells are dark and unhygienic. (6) Retention of narrow congested streets. (8) Cube at present (this example) 2,270,000 cubic feet.

The time for this change has arrived. On the one hand, the advances in building technique, the progress in fireproof construction and fire-fighting equipment, and the new conceptions in architectural design, represent great new forces waiting to be harnessed to the large-scale reconstruction of London. And, on the other hand, hundreds of thousands of workers whose livelihood is dependent upon the building industry, either in the manufacture of component parts or as builders, are seeking employment.

We would respectfully suggest for the consideration of the Advisory Committee, as a basis for the carrying into effect of the improved building methods above outlined, that :—

(1) New buildings be allowed to go to a height of 85 ft. on the building line, plus an extra height of 40 ft. set back within an angle of 75°.

This revision would give better light and air to the streets than under the existing conditions, where architectural features and cornices project beyond the main envelope of the building and considerably diminish the angle of light from that theoretically required.

(2) New buildings be set back at pavement level in order to provide a minimum of 30 ft. to the centre of the street. The area given up to the public multiplied by a height of 125 ft. plus one half of this volume may be added to the building above the 125 ft. level, provided the added height is set back within the 75° angle.

This revision would obtain a minimum width of street of 60 ft., and thereby help to solve one of the most urgent problems, that of street traffic congestion due to narrow streets.

The added height and cube to the buildings would be an inducement to rebuild on more modern and economic lines. Interior light wells, which are dark and unhygienic, would become impracticable, being replaced by light wells facing the streets, giving better light and air not only to the tenants in the building, but also to the people in the street and buildings opposite.

THE ADELPHI BILL

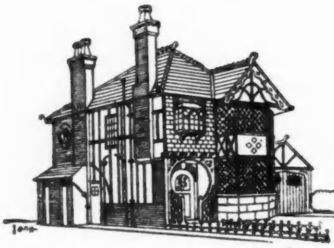
[*By our Parliamentary Correspondent*]

AN interesting debate took place in the House of Lords last week, when Lord Stonehaven moved the third reading of the Adelphi Estate Bill. He said that there was a good deal of misconception in regard to the Adam buildings which stood on part of the estate. In 1872 £72,000 was spent in alterations to Adelphi Terrace, and those alterations had changed the aspect of the Terrace to such an extent that he believed it would be impossible for the brothers Adam to recognize the present façade of their work. It was, therefore, impossible to claim that there was again ground for opposing the Bill because it would result in the demolition of the work of the Adam Brothers. There was nothing to prevent the owners of the property pulling it down and building up anything that would satisfy the London building bye-laws, and anyone who was acquainted with the buildings must be aware that what satisfied the ideas prevailing in 1771 was not adequate in regard to one of the finest sites in London today. Another objection was that the promoters were seizing property which had belonged to the public since 1771. The Select Committee was satisfied that this was also a misconception. The space of 80 feet in front of the present façade of Adelphi Terrace had a restriction imposed on it by the Act of 1771, which prevented any buildings higher than 20 feet being erected on it. The same restriction applied to the property lying further east, and immediately adjoining the Adelphi Terrace property, on which the Shell-Mex building now stood, and the Savoy Hotel. Since Parliament had thought fit to release the owners of that property from a similar restriction, it was essential to ascertain what valid objection there could be to the owners of the Adelphi Terrace property enjoying the same benefits today. If buildings were erected of a greater height than 20 feet that would not only interfere with the amenities of the occupants of the houses in the Terrace, but would also enormously reduce the value of the property in Adelphi Terrace, whose owners would be cutting off their nose to spite their face if they put up a large block of buildings. So the Committee did not think that was a valid objection. The Committee did not consider that the Bill would interfere with the amenities of the Embankment Gardens, and the objections of the London County Council, the Westminster City Council, and the Royal Society of Art had been met.

Lord Conway moved the rejection of the Bill. He said that the preservation of the beauties of London required ceaseless vigilance. They were scattered, and each had to be protected when the attack came. Adelphi Terrace was one of the great beauties of London, and if they handed it over to the builder and the road maker they would diminish by so much the amenities of London. There had been many attempts to build over quiet sites in London. The last attempt was in connection with St. James's, Piccadilly, and at the time a resolution was passed by the House of Commons "declining to sanction a private Bill in contravention of the general public statute concerning open spaces for the express purpose of enhancing the value of a private estate." That pretty accurately described what the present Bill was intended to do. The Terrace itself was one of the great amenities of London. In return for the loss of it they were to get buildings like Shell-Mex. He was not a critic of that building, but he would not exchange for it a terrace commanding a beautiful view over the Thames. The House was asked to allow the Terrace to be pulled down in order to improve the financial position of the estate. There was no demand now for great office accommodation and London was already too full of it. The problem of site value in London would not be over until the square mile to the south of the Thames had been tackled. If that could be done, the pressure on the Adelphi site would be diminished, and there would be no need to sacrifice the Terrace. He asked their lordships to vote for the maintenance of the amenities of London. Open spaces were becoming fewer, and new ones should be created rather than the existing ones be diminished.

LORD CONWAY's motion was, however, rejected by 90 votes to 26, and the Bill was read a third time.

WHAT IS TO BE DONE ABOUT



THIS?

[The preceding article in this series appeared in our issue of June 8, the special Cambridge and Slum numbers having intervened. In it, Mr. L. J. Gollop analysed factors in building costs : and it was shown that the architect's contribution to cheaper housing depended upon the exploitation of economical means of construction. Penates once more engages in the discussion, this week, to point out the advantages, in this connexion, of the modern developments of standardization and pre-fabrication due to American enterprise.

The following have already appeared :— (March 29) 1. The Speculative Builder, by Penates ; (April 5) 2. The Speculative Architect, by Edwin Gunn ; (April 12) 3. Building without Guidance, by Stanley C. Ramsey ; (April 19) 4. What the Public Want, by Edwin Gunn ; (April 26) 5. The Housing Problem, by Percy Morris; (May 3) 6. The Building Centre Competition, by E. Maxwell Fry; (May 10 and 17) 7 and 8. How the Architect can use the Building Societies, by H. C. Burdett ; (May 24) 9. The Housing Act, by our Parliamentary Correspondent ; (June 1) 10. Building Society Finance, by Penates ; (June 8) 11. Factors in Cost, by L. J. Gollop.— ED., *A.J.]*

12. The Pre-fabricated House

[By PENATES]

THE individual-architect-designed house is a luxury product ; it is not possible, or even desirable, in an age of big population that many such houses should be built. The houses of the people are mass-produced industrial products of the machine.

Because architects refuse to regard the house as a machine for living in, and cannot get rid of preconceptions and prejudices, but approach the problem of design from the æsthetic rather than the fitness side, and manufacturers are so intent upon selling that they neglect to experiment and demonstrate the proper and economical use of new materials, and because there is no one to finance the building of experimental houses or housing exhibitions, there has been no real movement forward towards the production of a low-cost dwelling.

The small house is, today, a mass-produced industrial product ; the individual rarely builds a house to suit his own requirements. He buys one from the stock of the speculator—who considers he has arrived at a standard that suits everyone—and he buys it, as he buys his furniture and his car, on the instalment system.

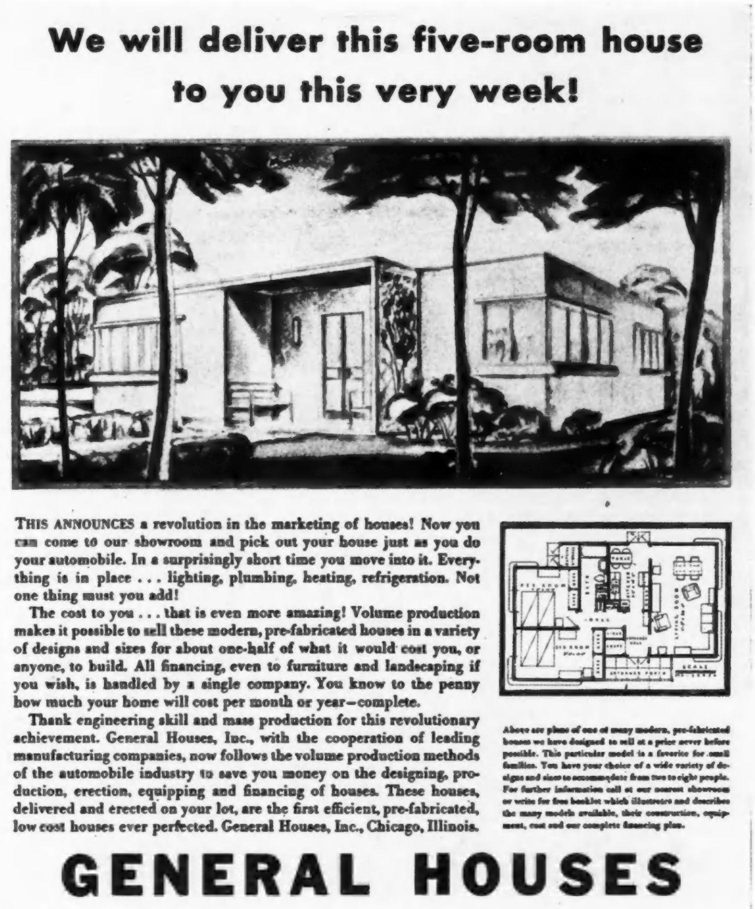
He is buying accommodation ; the question is whether he is getting his money's worth ; and when we are told that in 1924 six cars were produced for the same amount of labour and capital required to produce one car in 1904, we can only wonder that there is no other machine for the performance of the important social work that is at present controlled entirely by the speculative builder.

He claims, of course, that he provides the maximum accommodation, for the money, that is permitted by the methods and materials he employs ; but is he employing the most rational methods and the most economical materials ? It is obvious from the little home-made wood and pink-asbestos-roofed bungalows that continue to appear along every road in the country that no one can yet produce—well, the house that is needed, at a price that those who need it are able to pay.

The builder uses natural materials adapted to structural use, small units to fit the workman's hand, larger units that are cut and fitted on the job, and composite materials, mixed and applied on the job. The parts are built up by a laborious process on the site, few parts are standardized and pre-fabricated, and most of the work is done by hand. The specialization of hand work has led to the sub-contractor system. Co-ordination between the several trades during the construction period is temporary and inefficient ; time, labour, materials, and consequently money, are wasted, and progress is slow.

It seems that the provision of the economical house of good quality can only be made possible through rigid standardization and pre-fabrication. When floor heights, spans and beam spacing are of fixed dimensions, wall, partition and floor panels, doors, windows, built-in furniture and equipment units can be standardized and "submitted to a process of industrial fabrication."

The low-cost house will be manufactured as a whole, or in parts, in central factories and assembled on the



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Above are plans of one of many modern, pre-fabricated houses we have designed to sell at a price never before possible. This particular model is a favorite for small families. You have your choice of a wide variety of designs and sizes to accommodate from two to eight people. For further information call at our nearest showroom or write for free booklet which illustrates and describes the many models available, their construction, equipment, cost and our complete financing plan.

GENERAL HOUSES

Advertisements such as the above may well crowd automobile sales-talks out of the preferred magazine pages of the next decade. Instead of floating power and synchromesh gear shifts, the public of the later 'thirties will be dazzled with the claims of co-ordinated kitchens, thermostatic control, and cooled and conditioned air. The trade-marked house will compete for space with the trade-marked radio or the trade-marked soup. The above is actual copy prepared by the great new building group as part of its impending campaign to sell mass-produced houses—From HOUSING AMERICA.

site. Production will be similar to that of the automobile. Design will be dictated not only by convenience and efficiency, but by economical machine production, handling and distribution of parts, and speedy erection by unskilled labour.

In America several companies have formulated schemes, and though none have yet commenced production, experimental houses have been built, and working programmes prepared.

In some cases, companies, already equipped with modern plant capable of conversion to housing manufacture, will undertake mass-production and distribution, or a group of associated manufacturers of building materials and equipment will work through some central organization, which will arrange distribution and mass assembly.

General Houses, Inc., is in the latter category. It proposes, for immediate production, a pressed steel house, in several models, based on standard parts designed by Howard Fisher, the architect and engineer to the group.

The walls are of pressed steel and insulation panels, and the roof of insulation panels carried by steel beams. Partitions are sound-deadening throughout. The superstructure is supported on regularly spaced concrete piers, and a small cellar provides access to house meters and service connections. The exterior finish is painted steel, and the internal finish painted insulation board.

Equipment includes heating, lighting, plumbing, refrigeration and air-conditioning. Erection takes two weeks or less. It is possible to buy at first a minimum dwelling and add a room from time to time.

House types will change with experience and experiment, and the Corporation proposes to develop not only low-cost individual houses, but terrace houses and villas of the luxury type, " the Lincolns and Cadillacs," in which details of mechanism and construction will compare with those of the most expensive motor-cars, whilst economical use of pre-fabricated units and speed of erection will make for a relatively low selling price.

The Columbian Steel Tank Co. supply, for 600 dollars, a house with three rooms and a porch, and for 900 dollars a four-roomed house with two terraces. Each type is frameless. Walls and roof are of channel-steel sections, bolted together. The interior is finished with insulation board and the outside painted. The house is fire-resistant and weather-proof. The price is exclusive of plumbing, flooring and foundation costs.

The price of National Steel Homes ranges from 495 to 1,200 dollars. The walls and roof are of interlocking steel panels and insulation board, with rock wool filling. The exterior is painted steel and the interior painted wall-board. The equipment includes heating, lighting, plumbing and air conditioning.

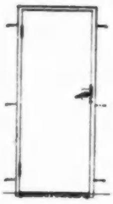
The architect can hardly complain at a time when almost all small house building is in the hands of the speculative builder that the manufacture of small houses by the thousand will deprive him of his work. It seems more likely that if he associates himself actively with such a project in its initial stages, and is instrumental in bringing about standardization, he may recapture work in a field he has lost, and, having readjusted his ideas of planning, continue to practice as he would at present, designing in terms of standardized pre-fabricated panels instead of 9 ins. by 4½ ins. by 3 ins. bricks.

There is no reason why design should deteriorate. Rather the new material should stimulate initiative, and bring to an end the period of stagnation that results from the obsolescence of available materials.

EASY TERMS
PLANS APPROVED

Regional Planning in Wales

Mr. B. S. Townroe, speaking at the opening of the " Beautiful Britain and Scenery of Wales " Exhibition in the Lesser City Hall, Cardiff, said that the Welsh County Councils were in many cases quite unaware of the value of wise regional planning, and that they could do much more to safeguard the rural parts of Wales.



TRADE NOTES

BY F. R. S. YORKE, A.R.I.B.A.

Steel Door Frames

I FEEL that Messrs. Crittall are to be congratulated on having introduced steel door frames to this country. Such frames have been manufactured for several years on the Continent, but it has been almost impossible to obtain them in England, and, where a metal frame has been essential, it has been necessary to build it up from available flats and angles.

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Metal frames were, I believe, first used in Continental hospitals, but they are now fitted regularly in offices, flats, domestic houses, and many other types of building, and, although they are more expensive than the wooden variety, they have several advantages over the older material. They lend themselves to mass-production, are durable, stable and clean.

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The quality of durability, though desirable in all types of building, is of especial importance in hospitals, where wheeled traffic is liable to damage edges formed in a soft material.

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Since shrinkage is eliminated, there is no likelihood of frame and plaster parting company in varying temperatures to cause cracks that collect dust and encourage vermin. The frames are easily cleaned, since projections are reduced to a minimum, and there are no mouldings or planted-on architraves to form awkward impenetrable angles.

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In the present stage of development Messrs. Crittall have standardized the frame sections to accommodate wood doors in 2 ins. partitions, and $4\frac{1}{2}$ ins. and 9 ins. walls, and heights and widths are governed by the standard sizes of flush wood doors—a type to which the frame is particularly suited. Standardization naturally bears an important relation to the cost of production and is therefore most desirable.

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The frames are rolled from 14 gauge plate, electrically welded at corners, and are complete with lugs, welded to the frames for building in.

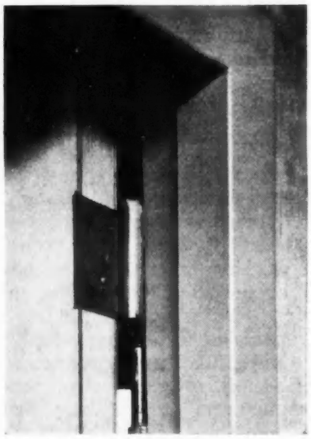
Hinges are of the lift-off type, one leaf being welded to the door frame and the other loose for application to the wood door; provision is made in the frame for the lock shoot.

The frame consists of head and jambs only, the sill having an angle distance-piece which can be removed after fixing if desired, or alternatively this distance-piece can be supplied in $\frac{7}{8}$ in. hardwood to rest on the floor joists as shown in the accompanying diagram, to facilitate finishing the floor boards on either side of the door.

The prices for the three types of frame, exclusive of door and lock, but including delivery to site, are :—

For 2 ins. partitions, door opening size 6 ft. 6 in. by 2 ft. 6 in., 16s. 6d. each.

For $4\frac{1}{2}$ ins. walls, door opening size 6 ft. 6 in. by 2 ft. 6 in., 18s. each.

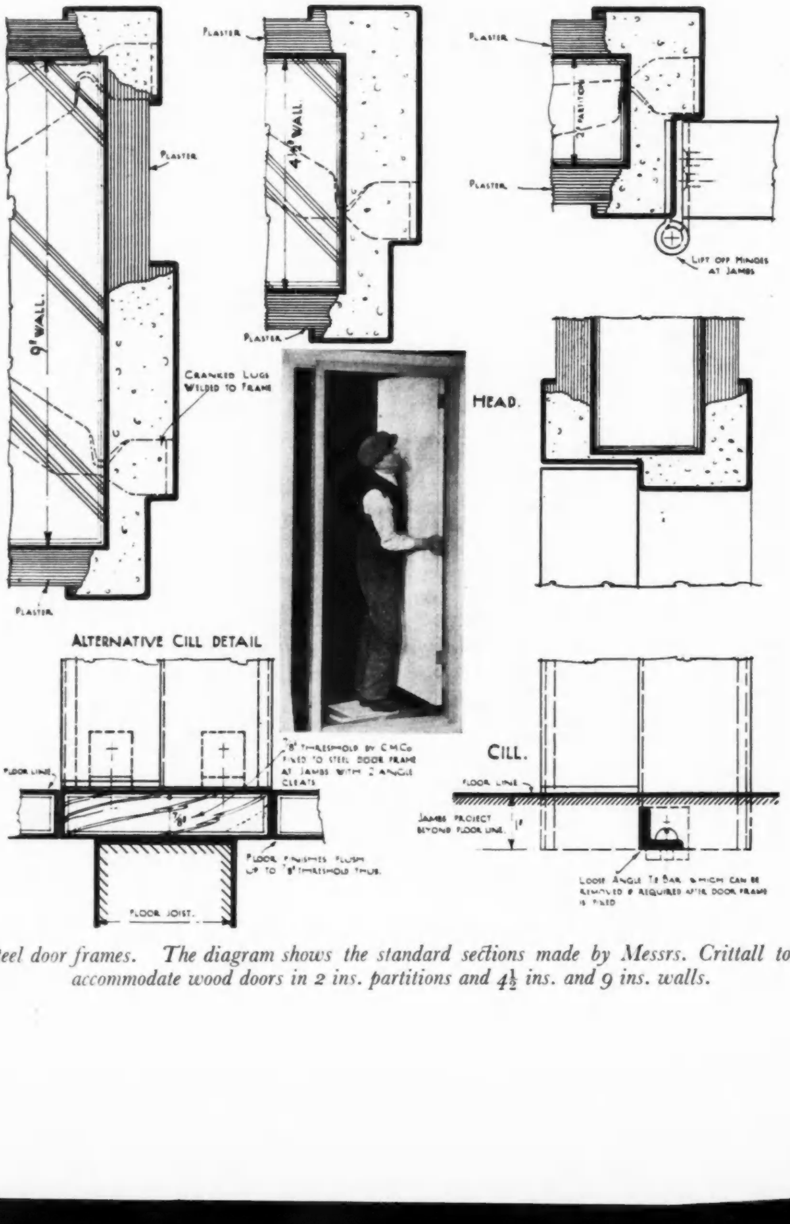


A detail of the frame and hinge.

For 9 ins. walls (door frame and corner fillet), door opening size 6 ft. 6 in. by 2 ft. 6 in., 26s. each.

An Architects' Camera

I imagine most of us have, in the past, associated the whole-plate or half-plate camera, a tripod and a valise of impedi-


PLASTER
PLASTER
9" WALL.
PLASTER
PLASTER
4½" WALL
PLASTER
CRANKED LUGS WELDED TO FRAME
PLASTER
2" PARTITION
PLASTER
LIFT OFF HINGES AT JAMBS
HEAD.
ALTERNATIVE CILL DETAIL
FLOOR LINE
7/8" THRESHOLD BY C.M.Co FIXED TO STEEL DOOR FRAME AT JAMBS WITH 2 ANGLE CLEATS
7/8"
FLOOR FINISHES FLUSH UP TO 7/8" THRESHOLD THUS.
FLOOR JOIST.
CILL.
FLOOR LINE
JAMBS PROJECT BEYOND FLOOR LINE.
1"
LOOSE ANGLE TIE BAR WHICH CAN BE REMOVED IF REQUIRED AFTER DOOR FRAME IS FIXED

Steel door frames. The diagram shows the standard sections made by Messrs. Crittall to accommodate wood doors in 2 ins. partitions and $4\frac{1}{2}$ ins. and 9 ins. walls.

menta, with any serious attempt at architectural photography. But we can today obtain a pocket camera that combines the handiness of the well-known snapshot type with the qualities of more expensive and more bulky equipment.

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The "Leica" camera is an interesting example of this development. Its overall measurements are only 5⅜ ins. by 2⅝ ins. by 1¾ ins., and its weight 18 oz. The film used is standard small-sized cinematograph film, giving a negative 1 in. by 1½ ins. The equipment of the camera throughout is of the quality associated with the best press cameras, and only its small size, I imagine, permits production at the relatively low price of £22 10s. The shutter is of the focal plane type, giving instantaneous exposures ranging from 1/20th to 1/500th of a second, and, of course, time exposures. The setting of the shutter automatically winds a new length of film into position, making double exposure an impossibility.

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The standard lens is F3.5, with a 5 centimetre focus, but six immediately interchangeable lenses are available and include wide angle, telephoto and specially fast lenses. An ingenious range-finder is automatically coupled to the focussing, and works on the principle of the coincidence of two images. By its use sharp focussing is achieved in a few seconds. Incidentally, since the standard lens is of short focal length, comparatively deep focus can be obtained at full aperture. A depth of focus scale is engraved on the focussing ring, enabling one to see at a glance how much of one's picture will be needle sharp at any given aperture. This seems to me a very valuable provision.

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Ordinary contact prints are in most cases too small to be of value, but the negatives are so sharp that enlargements can readily be made up to 10 ins. by 8 ins. or more without loss of definition. The cost of each negative works out at about 1d., and enlargements vary in price from 6d. for a postcard size to 1s. 6d. for a full plate. The low cost of the negatives makes it possible to take a large number of views of any particular subject and to choose the most successful for enlargement.

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The speed is such that "snaps" can be taken out-of-doors in practically any light, whilst, with panchromatic films, interiors require only six or seven seconds—even in poor artificial light—at full aperture. Indeed, with the specially fast lenses (such as the Herakles F1.9) it is often possible to "snap" in strong artificial light. There is no rising front to the camera, but distortion in perspective (which is particularly likely to occur in architectural photography) is easily corrected in enlarging, provided the enlarging is done by a competent firm of photographic specialists. The camera is so light that it can be carried in the overcoat pocket with little inconvenience, and, since there are 36 exposures on each film, it is very convenient for use on holidays and other journeys as an architectural notebook.

A strip of three contact prints from a portion of a film exposed in a Leica camera, reproduced actual size. See note on this page.

IN THAT CONTINGENCY

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for application to all similar problems. Crown Copyright Reserved.

Decay of Old Brickwork

¶ *AN interesting case of the decay of external brickwork in a church tower, built entirely of thin Roman bricks some eight or nine centuries ago, was recently brought to the notice of the Station. An inspection was made at the request of the architect who had been called in to make a survey of the failure. The decay took the form of deep erosion of the face of certain individual bricks, while the faces of others were crumbling and powdering badly. The worst cases of erosion occurred at the corners of the tower.*

The architect mentioned that something like sixty or seventy years ago a restorer of the fabric had repointed the whole of the external faces of the tower in a Portland cement mortar. The apparent hardness and density of the mortar joints corroborated this statement.

Many instances have been reported to the Station of the disintegration and flaking of brickwork when set in mortar which is too dense and impermeable. This decay may be due to (1) the action of soluble salts present in the bricks, or (2) the action of soluble salts derived from the mortar, or (3) frost. The controlling factor is the outlet for moisture. If the solutions can find their way out through the joint, the water evaporates (or freezes) at the surface of the mortar, and either leads to efflorescence there or to destruction of the mortar. But if the solutions can only pass out through the brick, and if the brick is of a type susceptible to this form of action, the face of the brick suffers. Thus bricks set in permeable lime mortar have been known to weather well, whilst the lime mortar has perished; but when they have been repointed in dense Portland cement mortar, the mortar has survived at the expense of the bricks.

The present instance is interesting in view of the fact that the bricks have lasted well for so many centuries. There can be no doubt that the decay now being experienced started after the repointing with Portland cement mortar. The joints project beyond the face of the eroded bricks, and it is unlikely that they would have been left in this condition had the bricks been eroded at the time of repointing. Also, it can be assumed that the bricks themselves cannot have contained much soluble salts after the lapse of centuries. The decay seems therefore due either to soluble salts leached out from the mortar through the bricks, or to frost action. The latter may have been predominant in the case of the bricks at the corners of the tower. The sporadic nature of the failures is of course due to the variability in density of materials and in workmanship.

If it is desired to retain the original architectural character of the brickwork, the only treatment to be adopted is to rake out the whole of the Portland cement mortar joints and to repoint in a less dense and more permeable mortar. A suitable mortar would be one of hydrated lime gauged with a small proportion of Portland cement.

Thermal Movements of Concrete Promenade covered with Asphalt

¶ *A LOCAL authority had recently completed the construction of a covered promenade 400 ft. long, consisting of reinforced concrete beams and slabs, carried on reinforced concrete columns. An expansion joint was provided in the centre and the deck was finished with 1¼ ins. of asphalt. The movements at the expansion joint had been carefully observed and were found to amount to as much as ⅜ in. on certain days. The engineer considered that the structure would benefit if this movement could be reduced, and that this might be effected by spraying the asphalt with some material to give a light coloured surface, so that less heat would be absorbed than by the black asphalt. The advice of the Station was asked as to a suitable covering that could be applied.*

The question of the heat attained under asphalt mastics, due to their low reflective power for solar radiation, has been occupying the attention of the Building Research Station for some time, and accounts of the work done and the measurements which have been made will be found in recent Reports of the Building Research Board. The Station investigated last year a considerable number of failures due to thermal movements of asphalt-covered concrete roofing slabs, where neglect to provide any form of expansion joint had resulted in displacement and fracture of the supporting structures.

In view of the importance of these effects, endeavours have been made to find a suitable white surface treatment which could be brushed or sprayed on to asphalt. Experiments have shown that a white surface finish such as a simple whitewash does, in fact, reduce the temperature attained by the asphalt very considerably, but unfortunately it has not been possible up to the present to find any treatment which is reasonably durable and yet at the same time will not have any adverse effect on the weathering of the asphalt. The use of paints or distempers containing oils or oil emulsions is inadvisable, since they may tend to soften the surface of the asphalt, and it has been found in trials on a roof here that inorganic treatments, which at first sight would seem quite unobjectionable, have induced crazing of the asphalt on exposure. Up to the present the only treatments that can be suggested, which are not in any way open to objection, are the following :—

(1) A layer of about 1 to 2 ins. of light coloured stone chippings or gravel.

(2) A special form of light concrete decking which has been produced by a firm of reinforced concrete engineers.

(3) A special form of asbestos-cement tile which is being marketed for use with a bitumen felt type of roofing, but which could probably be used quite satisfactorily over asphalt.

OUR SECRETARIES

• 2 •

D. N. MARTIN-KAYE

ESSEX, CAMBRIDGE AND HERTS. SOCIETY OF ARCHITECTS

MR. D. N. MARTIN-KAYE, F.R.I.B.A., A.A.DIPL., was born in London in 1891 and educated at Colet Court and St. Paul's School, West Kensington. After leaving school he proceeded abroad and studied first at the Ecole de Commerce, Neuchatel, Switzerland, and the Berliner Handelschule, Germany, breaking his studies by travelling in Germany and Italy. He began his architectural training in the office of Herr Alfred Sasse, a prominent architect in Hanover.

Returning to England, he entered the A.A. Schools. During the war he served in the Royal Engineers. After demobilization he served as assistant to many prominent architects. Later, he entered into private practice.

In 1922 he was appointed specialist teacher in Architecture at the School of Arts and Crafts, Southend. This school was placed on the recognized list of the R.I.B.A. for exemption from the Intermediate Examination, R.I.B.A., in 1927, and re-organized with a separate department of architecture of which he is the responsible head.

In 1927 Mr. Martin-Kaye was Founder and Hon. Secretary of the Southend-on-Sea District Society of Architects.

At the suggestion of the R.I.B.A., Mr. Martin-Kaye organized the formation of Chapters in Chelmsford, Colchester and West Essex and embodied the same into the Essex Society of Architects.

In 1930 the counties of Cambridge and Hertfordshire were incorporated and the title changed to the Essex, Cambridge and Hertfordshire Society of Architects. Mr. Martin-Kaye has acted as Hon. Secretary since its inception. He is also responsible for domestic work in London, Essex, Suffolk and Sussex.

Announcements

Mr. Arthur A. Stewart, A.R.I.B.A., is joining the firm of Messrs. Burgess, Holden and Watson, practising at Lloyds Bank Chambers, Beaconsfield, Bucks., and 12, Grays Inn Square, as a partner.

Mr. J. G. Burgess, F.R.I.B.A., lately of the firm, has recently died at his Beaconsfield home.

The firm will continue to practise under the old title, the partners being Mr. C. H. Watson, F.S.I., L.R.I.B.A., Mr. Arthur A. Stewart, A.R.I.B.A., with Mr. W. F. C. Holden, F.R.I.B.A., as consultant.

*

Messrs. William and Edward Hunt, FF.R.I.B.A., have removed to new offices in Brettenham House, Lancaster Place, Strand, W.C.2. Telephone Nos. Temple Bar 1843 and 7801 (as before).

Trade Item

Motor Coach Stations is the title of a brochure just issued by the British Steelwork Association. The coach stations illustrated are diverse in type and have each been built to suit particular requirements. One feature, however, common to all is that they are built on the steel-frame principle of construction. No other structural medium, it is emphasized, is competitive where large unobstructed areas, involving long uninterrupted spans, are necessary. For these conditions, the claim of structural steelwork is paramount, but it is also significant that even in the design of administration blocks, steelwork has been used ; its economic advantages in adaptability to future requirements, its speed of erection and light construction, combined with its flexibility to meet any particular requirements of design, placing it in the forefront of all materials in the construction of modern buildings.

South Africa House

The following is a list of the general and sub-contractors for South Africa House, illustrated on pages 861-3 and supplement to this issue.

General contractors, Holland and Hannen and Cubitts, Ltd. Sub-contractors, Diespeker & Co., Ltd., biancola and terrazzo ; Drake and Gorham, electrical distribution system ; Fenning & Co., Ltd., marble and Crestown granite ; G. N. Haden and Sons, Ltd., heating, hot water supply, ventilation and refrigerator plant ; Matthew Hall & Co., Ltd., plumbing and drainage ; Le Grand, Sutcliff and Gell, Ltd., artesian wells and plunger pumps ; Limmer and Trinidad Lake Asphalte Co., asphalt ; Redpath, Brown & Co., Ltd., constructional steelwork ; Scaffolding (G.B.), Ltd., scaffolding ; Waygood-Otis, Ltd., electric lifts ; Willment Bros., excavation ; The Acme Flooring and Paving Co., Ltd., wood block paving ; Laurence A. Turner, plaster decoration, coats-of-arms, enrichments and wood carving, etc. ; The Pulsometer Engineering Co., Ltd., sewage pumping plant ; The Croft Granite Brick and Concrete Co., reconstructed "Hydroment" Portland stone ; Complete Plasterers, Ltd., plasterwork ; Stuart's Granolithic Co., Ltd., granolithic work ; The Synchronome Co., Ltd., electric clock installation; Standard Telephones and Cables, Ltd., paternoster type conveyor ; Milners' Safe Co., Ltd., strong room door and gate ; Henry Hope and Sons, Ltd., metal sashes ; Joseph Armitage, stone carving ; W. Finch, expanded metal lathing ; T. W. Palmer & Co., light ceiling steelwork ; Ericsson Telephones, Ltd., automatic switchboard ; W. B. Simpson and Sons, wall and floor tiling ; Brown and Tawse, Ltd., light ceiling steelwork ; Fredk. Sage & Co., Ltd., bronze doors and frames to conveyor ; James B. Robertson & Co., polishing acoustic plaster ; A. B. Young, Ltd., acoustic plaster.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILE RADIUS)

Plans passed at SANDERSTEAD : Two houses, North Down, for Mr. H. P. Hawkes ; three shops, Addington Road, for Mr. C. H. Ridge ; four streets, Sanderstead Court estate, for Mr. C. H. G. Taylor ; 47 houses, Braemar Avenue, for Mr. F. H. Willcocks ; two streets, Selsdon Park Farm estate, and 10 houses, Sundale Road, Selsdon, for Industrial Builders, Ltd. ; two houses, Limpsfield Road, for Mr. Duncan Wylson ; two bungalows, York Road, Selsdon, for Mr. G. Burgess.

The STEPNEY B.C. is to erect another block of tenements on the Limehouse Fields site at a cost of £8,237.

Plans passed by the WATFORD Corporation : Alterations and additions, 140, St. Albans Road, for Watford Co-operative Society, Ltd. ; roads, Leavesden Green estate, for Messrs. Kempster and Williams ; four bungalows, Bradshaw estate, for Mr. F. Pearce ; six houses, Orchard Drive, for Messrs. W. J. Rice and Son ; 12 houses, Bradshaw estate, for Mr. R. Burton ; four houses, North Western Avenue, for Messrs. Kempster and Williams ; mortuary, Harwoods Road, for Messrs. C. H. Hempsall and Son ; alterations and additions, Clarendon Hotel, Station Road, for Benskins Brewery, Ltd. ; two houses, Woodland Drive, for Messrs. A. J. and R. Eldridge.

Plans passed by the WOODFORD U.D.C. : Ten houses, Seaforth Gardens ; six houses, Dale Gardens ; seven houses, Beverley Crescent ; five houses, Knighton Drive.

SOUTHERN COUNTIES

Plans passed by the LITTLEHAMPTON U.D.C. : Eight houses, Clun Road, for Mr. G. E. Hayward ; three shops and houses, Wick Street, for Mr. C. W. Alliston ; alterations, 10, Surrey Street, for Messrs. Boots ; six houses, Horsham Road, for South Coast Trading Co. ; 16 houses, Cornwall Road, for Messrs. W. Charman and Son.

EASTERN COUNTIES

The COLCHESTER Corporation is to obtain tenders for the erection of 46 houses on the Ipswich Road estate.

SOUTH-WESTERN COUNTIES

The BRISTOL Corporation is considering proposals for the erection of premises, at a cost of £20,000, on a site in the Prince Street area.

MIDLAND COUNTIES

The BURTON-ON-TRENT Corporation has approved a scheme submitted by the borough surveyor for extending casual wards, at an estimated cost of £7,000, together with furnishing at a cost of £323, and tenders are to be invited for the work and furnishing.

Plans passed by the DUDLEY Corporation : Four houses, Priory Road, for Mr. C. Coulson ; eight houses, Buffery Road, for Messrs. Poole Bros. ; two houses, Aston Road, for Mr. T. H. Bate ; eight houses, Buffery Road, for Messrs. Lloyd Bros. ; two houses, Priory estate, for Mr. S. Brookes ; shop, Wood Road, for Mr. W. B. Homer ; two houses, Paganel Drive, for Mr. W. Lindley ; two houses, Cole Street, for Mr. A. Scriven ; workshop extension, Scotts Green, for Messrs. F. Flanagan and Sons ; boiler house and laundry, Guest Hospital, Tipton Road, for governors.

Plans passed at ILKESTON : Thirty-one houses, new street, off Norman Street, for Mr. R. M. Tickle ; shop and house, Nottingham Road, for Mr. Wm. Goodchild ; bakery, Derby Road, for Ilkeston Co-operative Society ; two houses, Heanor Road, for Mr. W. H. Dawson.

The NORTHAMPTON Corporation is to proceed with the clearance of the Bath Street and Scarletwell areas, and obtain tenders for the erection of 76 houses, for displaced tenants, on the St. David's estate. It is expected that tenders for a further 220 houses will be invited in the autumn.

The NORTHAMPTON Corporation is to obtain tenders for the erection of another 100 houses on the Abington estate.

Plans passed by the NORTHAMPTON Corporation : Two houses, Brookland Road, for Messrs. Lack and Revett ; 12 houses, Freehold Street, for Mr. J. A. House ; land development, Ridgeway, for Messrs. A. P. Hawtin and Sons, Ltd. ; nine houses, Balmoral Road, for Messrs. H. Holloway and Sons ; two houses, Briar Hill Road, for Messrs. H. Martin, Ltd. ; 83 houses, Ennerdale Road, etc., for Messrs. Chowns, Ltd. ; two houses, Hawthorn Road, for Messrs. Jordans ; four houses, Pinewood Road, for Northampton Co-operative Society, Ltd. ; four houses, Greenfield Road, for Messrs. S. G. Sale & Co. ; four houses, Edinburgh Road, for Mr. S. A. Barber ; two houses, Cranmere Avenue, for Messrs. A. Glenn and Sons, Ltd. ; two houses, Weston Way, for Henry Green's exors ; 14 houses, Euston Road, for Messrs. T. Wilson and Son, Ltd. ; alterations, 43 Bridge Street, for Messrs. Rawlins, Hawtin & Co. ; institute, Church Lane, for St. Sepulchre's Church Council ; two houses, Monks Park Road, for Mr. W. B. Chattell ; workshop and offices, 7, Spencer Road, for Messrs. Matthews Bros.

Plans passed by the WOLVERHAMPTON Corporation : Forty-six houses, Elston Hall Lane, for Mr. A. J. Fieldhouse ; estate development, Goldthorn Court, for Messrs. Instone and Instone ; estate development, off Rooker Avenue, for Messrs. T. and B. Butler ; eight houses, Jones Avenue, for Mr. Thomas Jones ; three houses, Watery Lane, for Mr. C. B. Jones ; additions, Church Hall, Owen Road, for St. Chad's Church Council ; four houses, Pinfold Lane, for Messrs. H. Gough and Son, Ltd. ; six houses, Pinfold Lane, for Mr. W. Sharratt ; eight houses, Finchfield Lane, for Mr. R. Carpenter ; two shops, Thorneycroft Lane, for Mr. W. J. Leading ; four houses, Oxley Moor Road, for Messrs. Brookes & Co. ; Church, Cannock Road, for Messrs. Sandy and Norris ; estate development off Warstones Road, for Messrs. A. M. Griffiths and Son, Ltd. ; 11 houses, Penn House Avenue, for Messrs. E. Leach & Co. ; two houses, York Gardens, for Mr. J. H. Appleby ; two houses, Bhylls Lane, for Messrs. W. and A. Dalton ; Roman Catholic Church, Cannock Road, for Rev. Maurice Woulfe ; two houses, Park Road West, for Mr. W. G. Corfield ; 58 houses, Rooker Road, for Wolverhampton and Dudley Breweries, Ltd.

NORTHERN COUNTIES

Plans passed by the BRADFORD Corporation : Thirty-two houses, Cemetery Road, for Messrs. John Brown and Sons ; 31 houses, Moore Avenue, for Mr. H. Crabtree ; 160 houses, Great Horton Road, for British Cotton Dyers' Association, Ltd. ; five houses, Poplar Grove, for Bradford Brick and Tile Co., Ltd. ; 41 houses, Ingleby Road, for Mr. J. Smith.

Plans passed by the HYDE Corporation : Reconstruction, bakery and slaughter-house, Railway Street, for Equitable Co-operative Society, Ltd. ; shops, Market Place and Hammett Street, for Messrs. F. W. Woolworth & Co., Ltd. ; additions, offices, Market Street, for Philanthropic Burial Society ; 14 houses, Johnson Brook Road, for Mr. Joseph Wheatley ; 10 houses, Dowson Road, for Mr. Frank Norgrove ; six houses, Ashton Road, for Messrs. Crompton Bros. ; four houses, Slateacre Road, for Messrs. F. Booth and Son.

Plans passed at HYDE : Eight houses, Knott Lane, for Messrs. Crompton Bros. ; two houses, Lodge Lane, for Mr. C. H. Pike ; two houses, Bennett Street, for Mr. W. Bowden ; offices, Silver Hill Road, for Messrs. Crompton Bros. ; bakehouse, 172, Muslin Street, for Miss G. Bowman ; additions to shop, 45, Market Street, for Maypole Dairy Co., Ltd.

Plans passed by the STALYBRIDGE Corporation : Shop, Melbourne Street, for Grosvenor Estate Co. ; 22 houses, Huddersfield Road, for Mr. A. V. M. Deane.

Plans passed by the WALLSEND Corporation : Thirteen houses, Shafto Street, for Mr. H. Turner ; two houses, Battle Hill estate, for R. J. S. (Builders), Ltd. ; 222 building sites, vicinity of Churchill Road, for Battle Hill Estate Co. ; development for 184 houses, Westfield estate, for Mr. J. H. James.

Plans passed by the WARRINGTON Corporation : Engine house, Hale Street, for United Velvet Cutters Association ; two houses, Long Lane, for Mr. G. Forsyth ; new buildings, Works Area, for British Aluminium Co., Ltd. ; boiler house, Wilderspool Brewery, for Messrs. Greenall, Whitley & Co., Ltd. ; presbytery, Henshall Avenue, for Rev. Father Cullen ; 26 houses, Grantham Avenue, for Messrs. T. and C. Rigby ; nine houses, Ellesmere Street, for Messrs. Perdue and Whitfield.

Plans passed by the YORK Corporation : Six houses, Cambridge Street, for Messrs. Parker and Sharp, Ltd. ; additions, County Chambers, Bootham, for Mr. J. Hetherton ; two houses, Kilburn Lane, for the Misses Cammack ; four houses, Albermarle Road, for Mr. J. Hetherton ; additions, hall, Water Lane, for St. Philip's Church Council ; eight houses, Grantham Drive, for Mr. J. Foster ; eight houses, Moor Garth Avenue, for Messrs. R. J. Pulleyn and Sons ; six houses, Burton Grange Crescent, for Mr. A. Temple ; five houses, Stockton Lane, for Mr. J. Maw ; two houses, Huntingdon Road, for Mr. S. Magson ; two houses, Clifton Lodge estate, for Estate Co. ; four houses, Woodside Avenue, for Mr. J. N. Dunn ; three houses, Malton Road, for Messrs. Collins and Murray ; estate development, North Lane, Dringhouses, for Mr. W. Simpson.

WALES

The CARDIFF Corporation has decided to proceed with the scheme for a central bus station, which will cost £225,750 for property, and £18,100 for construction.

The CARDIFF Corporation is to obtain tenders for the reconstruction of Leckwith Bridge, the cost of the scheme being estimated at £18,000.

Tenders Received

The following tenders have been submitted for the proposed Tuberculosis Hospital at Hayes Farm, Sully, for the Welsh National Memorial Association. (Messrs. William A. Pite, Son, and Fairweather, architects.)

Name.	Amount of Tender.			Alternative Estimate.		
	£	s.	d.	£	s.	d.
E. D. Winn & Co., Ltd.	151,397	0	0	9,368	19	2
T. E. F. Whitear ..	154,349	0	0	9,104	0	0
J. Gerrard and Sons, Ltd.	154,500	0	0	9,902	0	0
Harold Arnold and Son, Ltd.	158,773	0	0	10,501	0	0
Wm. T. Nicholls, Ltd.	158,969	0	0	9,936	19	9
Dove Bros., Ltd. ..	159,655	0	0	10,063	0	0
G. Dougill and Sons ..	160,254	9	7	9,469	9	6
Wm. Moss and Sons, Ltd.	161,403	8	1	9,594	15	10
E. Turner and Sons, Ltd.	162,323	0	0	10,831	12	3
Evan Thomas and Sons, Ltd.	162,999	17	2	10,376	10	5
Wilson Lovatt and Sons, Ltd.	163,494	11	4	14,964	0	0
S. C. Taverner & Co., Ltd.	164,869	0	0	9,565	0	0
F. J. Thomas and Sons, Ltd.	165,100	18	1	9,890	6	3
Foster and Dicksee, Ltd.	165,443	0	0	11,589	0	0
Richard Jones ..	166,088	0	0	9,671	11	0
Sir Lindsay Parkinson & Co., Ltd.	166,280	0	0	9,382	11	6
W. J. Sims, Sons and Cooke, Ltd.	166,353	0	0	9,608	14	2
Henry Willcock & Co., Ltd.	168,095	15	5	15,223	6	6
W. F. Humphries, Ltd.	168,472	0	0	15,260	5	0
H. J. Herbert & Co., Ltd.	171,045	0	0	11,623	18	3
E. Crowder	171,564	7	11	10,507	19	4
C. Bryant and Son, Ltd.	171,743	0	0	10,039	7	6
Messrs. Morris & Co. (Builders), Ltd. ..	172,000	0	0	10,700	0	0
T. F. Howells, Ltd. ..	172,029	0	0	10,001	10	0
Rowles, Ltd.	173,152	3	10	10,781	8	0
J. E. Evans & Co. ..	175,901	14	7	11,049	3	11
F. C. Williams	176,952	17	7	11,295	18	9
John Morgan (Builders)	180,965	8	6	10,044	8	3
Arthur Seaton ..	195,179	0	0	16,343	7	7

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I	II
			s. d.	s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 0¾
A_1	Abergavenny ..	S. Wales & M.	1 5	1 0¾
A_3	Abingdon ..	S. Counties	1 4	1 0
A	Accrington ..	N.W. Counties	1 5½	1 1¼
A_3	Addlestone ..	S. Counties	1 4	1 0
A	Adlington ..	N.W. Counties	1 5½	1 1¼
A	Airdrie ..	Scotland	*1 5½	1 1¼
C	Aldeburgh ..	E. Counties	1 1½	10¼
A	Altrincham ..	N.W. Counties	1 5½	1 1¼
B_3	Appleby ..	N.W. Counties	1 2	10½
A	Ashton-under-Lyne	N.W. Counties	1 5½	1 1¼
A_3	Atherstone ..	Mid. Counties	1 4	1 0
B_2	Aylesbury ..	S. Counties	1 2½	11
B_1	BANBURY ..	S. Counties	1 3	11¼
B_1	Bangor ..	N.W. Counties	1 3	11¼
A_3	Barnard Castle	N.E. Coast	1 4	1 0
A	Barnsley ..	Yorkshire	1 5½	1 1¼
B	Barnstaple ..	S.W. Counties	1 3½	11¾
A	Barrow ..	N.W. Counties	1 5½	1 1¼
A	Barry ..	S. Wales & M.	1 5½	1 1¼
B_1	Basingstoke ..	S.W. Counties	1 3	11¼
A_3	Bath	S.W. Counties	1 4	1 0
A	Batley ..	Yorkshire	1 5½	1 1¼
A_3	Bedford ..	E. Counties	1 4	1 0
A_2	Berwick-on-Tweed	N.E. Coast	1 4½	1 0½
A_2	Bewdley ..	Mid Counties	1 4½	1 0½
B	Bicester ..	S. Counties	1 2	10½
	Birkenhead ..	N.W. Counties	*1 7	1 2¼
A	Birmingham ..	Mid. Counties	1 5½	1 1¼
A_1	Bishop Auckland	N.E. Coast	1 5	1 0¾
A	Blackburn ..	N.W. Counties	1 5½	1 1¼
A	Blackpool ..	N.W. Counties	1 5½	1 1¼
A	Blyth	N.E. Coast	1 5½	1 1¼
B_2	Bognor ..	S. Counties	1 2½	11
A	Bolton ..	N.W. Counties	1 5½	1 1¼
A	Boston	Mid. Counties	1 4	1 0
A_3	Bournemouth ..	S Counties	1 4	1 0
B_2	Bovey Tracey	S.W. Counties	1 2½	11
A	Bradford ..	Yorkshire	1 5½	1 1¼
A_1	Brentwood ..	E. Counties	1 5	1 0¾
A	Bridgend ..	S. Wales & M.	1 5½	1 1¼
B_1	Bridgwater ..	S.W. Counties	1 3	11¼
A_1	Bridlington ..	Yorkshire	1 5	1 0¾
A	Brighouse ..	Yorkshire	1 5½	1 1¼
A_3	Brighton ..	S. Counties	1 4	1 0
A	Bristol ..	S.W. Counties	1 5	1 0¾
B_3	Brixham ..	S.W. Counties	1 2	10½
A_2	Bromsgrove ..	Mid. Counties	1 4½	1 0½
C	Bromyard ..	Mid. Counties	1 1½	10¼
A	Burnley ..	N.W. Counties	1 5½	1 1¼
A	Burslem ..	Mid. Counties	1 5½	1 1¼
A	Burton-on-Trent	Mid. Counties	1 5½	1 1¼
A	Bury	N.W. Counties	1 5½	1 1¼
A	Buxton ..	N.W. Counties	1 5	1 0¾
A_2	CAMBRIDGE ..	E. Counties	1 4½	1 0½
B_2	Canterbury ..	S. Counties	1 2½	11
A	Cardiff ..	S. Wales & M.	1 5½	1 1¼
A	Carlisle ..	N.W. Counties	1 5½	1 1¼
B	Carmarthen ..	S. Wales & M.	1 3½	11¾
B	Carnarvon ..	N.W. Counties	1 3½	11¾
A	Carnforth ..	N.W. Counties	1 5½	1 1¼
A	Castleford ..	Yorkshire	1 5½	1 1¼
B	Chatham ..	S. Counties	1 3½	11¾
B	Chelmsford ..	E. Counties	1 3½	11¾
A_3	Cheltenham ..	S.W. Counties	1 4	1 0
A	Chester ..	N.W. Counties	1 5½	1 1¼
A	Chesterfield ..	Mid. Counties	1 5½	1 1¼
B_2	Chichester ..	S Counties	1 2½	11
A	Chorley ..	N.W. Counties	1 5½	1 1¼
B_2	Cirencester ..	S. Counties	1 2½	11
A	Clitheroe ..	N.W. Counties	1 5½	1 1¼
A	Clydebank ..	Scotland	1 5½	1 1¼
A	Coalville ..	Mid. Counties	1 5½	1 1¼
A_3	Colchester ..	E. Counties	1 4	1 0
A	Colne	N.W. Counties	1 5½	1 1¼
A_2	Colwyn Bay	N.W. Counties	1 4½	1 0½
A_1	Consett ..	N.E. Coast	1 5	1 0¾
A_2	Conway ..	N.W. Counties	1 4½	1 0½
A	Coventry ..	Mid. Counties	1 5½	1 1¼
A_2	Crewe ..	N.W. Counties	1 4½	1 0½
A	Cumberland ..	N.W. Counties	1 4	1 0
A	DARLINGTON	N.E. Coast	1 5½	1 1¼
A	Darwen ..	N.W. Counties	1 5½	1 1¼
B	Deal	S. Counties	1 2½	11
A_3	Denbigh ..	N.W. Counties	1 4	1 0
A	Derby	Mid. Counties	1 5½	1 1¼
A	Dewsbury ..	Yorkshire	1 5½	1 1¼
B	Didcot ..	S. Counties	1 3½	11¾
A	Doncaster ..	Yorkshire	1 5½	1 1¼
B_2	Dorchester ..	S.W. Counties	1 2½	11
A_3	Driffield ..	Yorkshire	1 4	1 0
A_2	Droitwich ..	Mid. Counties	1 4½	1 0½
A	Dudley ..	Mid. Counties	1 5½	1 1¼
A	Dundee ..	Scotland	1 5½	1 1¼
	Durham ..	N.E. Coast	1 5½	1 1¼
A_3	EASTBOURNE	S. Counties	1 4	1 0
A_1	Ebbw Vale ..	S. Wales & M.	1 5	1 0¾
A	Edinburgh ..	Scotland	1 5½	1 1¼
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 5	1 0¾
A_2	Exeter ..	S.W. Counties	*1 4½	1 0½
B_1	Exmouth ..	S.W. Counties	1 3	11¼
A_3	FELIXSTOWE	E. Counties	1 4	1 0
A_3	Filey	Yorkshire	1 4	1 0
A	Fleetwood ..	N.W. Counties	1 5½	1 1¼
B_2	Folkestone ..	S. Counties	1 2½	11
A	Frodsham ..	N.W. Counties	1 5½	1 1¼
B_2	Frome ..	S.W. Counties	1 2½	11
A	GATESHEAD	N.E. Coast	1 5½	1 1¼
B	Gillingham ..	S. Counties	1 3½	11¾
A_2	Gloucester ..	S.W. Counties	1 4½	1 0½
A_2	Goole	Yorkshire	1 4½	1 0½
A_3	Gosport ..	S. Counties	1 4	1 0
A_3	Grantham ..	Mid. Counties	1 4	1 0
A_1	Gravesend ..	S. Counties	1 5	1 0¾
A	Greenock ..	Scotland	*1 5½	1 1¼
A	Grimsby ..	Yorkshire	1 5½	1 1¼
B_1	Guildford ..	S. Counties	1 3	11¼
A	HALIFAX ..	Yorkshire	1 5½	1 1¼
A	Hanley ..	Mid. Counties	1 5½	1 1¼
A	Harrogate ..	Yorkshire	1 5½	1 1¼
A	Hartlepools ..	N.E. Coast	1 5½	1 1¼
B	Harwich ..	E. Counties	1 3½	11¾
B_2	Hastings ..	S. Counties	1 2½	11
A_2	Hatfield ..	S. Counties	1 4	1 0
B	Hereford ..	S.W. Counties	1 3½	11¾
A_3	Hertford ..	E. Counties	1 4	1 0
A	Heysham ..	N.W. Counties	1 5½	1 1¼
A	Howden ..	N.E. Coast	1 5½	1 1¼
A	Huddersfield ..	Yorkshire	1 5½	1 1¼
A	Hull	Yorkshire	1 5½	1 1¼
A	ILKLEY ..	Yorkshire	1 5½	1 1¼
A	Immingham ..	Mid. Counties	1 5½	1 1¼
A_3	Ipswich ..	E. Counties	1 4	1 0
B_3	Isle of Wight ..	S. Counties	1 2	10½
A	JARROW ..	N.E. Coast	1 5½	1 1¼
A	KEIGHLEY ..	Yorkshire	1 5½	1 1¼
B	Kendal ..	N.W. Counties	1 3½	11¾
B	Keswick ..	N.W. Counties	1 3½	11¾
A_2	Kettering ..	Mid. Counties	1 4½	1 0½
A_2	Kidderminster	Mid. Counties	1 4½	1 0½
B_2	King's Lynn ..	E. Counties	1 2½	11
A	LANCASTER ..	N.W. Counties	1 5½	1 1¼
A_1	Leamington ..	Mid. Counties	1 5	1 0¾
A	Leeds ..	Yorkshire	1 5½	1 1¼
A	Leek	Mid. Counties	1 5½	1 1¼
A	Leicester ..	Mid. Counties	1 5½	1 1¼
A	Leigh	N.W. Counties	1 5½	1 1¼
B_3	Lewes	S. Counties	1 2	10½
A_2	Lichfield ..	Mid. Counties	1 4½	1 0½
A	Lincoln ..	Mid. Counties	1 5½	1 1¼
	Liverpool ..	N.W. Counties	*1 7	1 2¼
A_2	Llandudno ..	N.W. Counties	1 4½	1 0½
A	Llanelly ..	S. Wales & M.	1 5½	1 1¼
	London (12-miles radius)		1 7	1 2¼
	Do. (12-15 miles radius)		1 6½	1 2
A	Long Eaton ..	Mid. Counties	1 5½	1 1¼
A	Loughborough	Mid. Counties	1 5½	1 1¼
A_3	Luton	E. Counties	1 4	1 0
A	Lytham ..	N.W. Counties	1 5½	1 1¼
A_1	MACCLESFIELD	N.W. Counties	1 5	1 0¾
B	Maidstone ..	S. Counties	1 3½	11¾
A_3	Malvern ..	Mid. Counties	1 4	1 0
A	Manchester ..	N.W. Counties	1 5½	1 1¼
A	Mansfield ..	Mid. Counties	1 5½	1 1¼
B_1	Margate ..	S. Counties	1 3	11¼
A_3	Matlock ..	Mid. Counties	1 4	1 0
A_1	Merthyr ..	S. Wales & M.	1 5	1 0¾
A	Middlesbrough	N. E. Coast	1 5½	1 1¼
A_2	Middlewich ..	N.W. Counties	1 4½	1 0½
B_2	Minehead ..	S.W. Counties	1 2½	11
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 2½	11
A	Morecambe ..	N.W. Counties	1 5½	1 1¼
A_2	NANTWICH ..	N.W. Counties	1 4½	1 0½
A_2	Neath	S. Wales & M.	1 5½	1 1¼
A	Nelson ..	N.W. Counties	1 5½	1 1¼
A	Newcastle ..	N.E. Coast	1 5½	1 1¼
A	Newport ..	S. Wales & M.	1 5½	1 1¼
A	Normanton ..	Yorkshire	1 5½	1 1¼
A_1	Northampton ..	Mid. Counties	1 5	1 0¾
A	North Staffs. ..	Mid. Counties	1 5½	1 1¼
A	North Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Norwich ..	E. Counties	1 4½	1 0½
A	Nottingham ..	Mid. Counties	1 5½	1 1¼
A	Nuneaton ..	Mid. Counties	1 5½	1 1¼
A_3	OAKHAM ..	Mid. Counties	1 4	1 0
A	Oldham ..	N.W. Counties	1 5½	1 1¼
A_3	Oswestry ..	N.W. Counties	1 4	1 0
A_2	Oxford ..	S. Counties	1 4½	1 0½
A	PAISLEY ..	Scotland	*1 5½	1 1¼
B_3	Pembroke ..	S. Wales & M.	1 2	10½
A	Perth	Scotland	*1 5½	1 1¼
A_2	Peterborough	E. Counties	1 4½	1 0½
A	Plymouth ..	S.W. Counties	*1 5½	1 1¼
A	Pontefract ..	Yorkshire	1 5½	1 1¼
A_1	Pontypridd ..	S. Wales & M.	1 5	1 0¾
A_3	Portsmouth ..	S. Counties	1 4	1 0
A	Preston ..	N.W. Counties	1 5½	1 1¼
A	QUEENSFERRY	N.W. Counties	1 5½	1 1¼
A_2	READING ..	S. Counties	1 4½	1 0½
B	Reigate ..	S. Counties	1 3½	11¾
A_3	Retford ..	Mid Counties	1 4	1 0
A_1	Rhondda Valley	S. Wales & M.	1 5	1 0¾
A_3	Ripon	Yorkshire	1 4	1 0
A	Rochdale ..	N.W. Counties	1 5½	1 1¼
B	Rochester ..	S. Counties	1 3½	11¾
A_1	Ruabon ..	N.W. Counties	1 5	1 0¾
A	Rugby ..	Mid. Counties	1 5½	1 1¼
A_3	Rugeley ..	Mid. Counties	1 4	1 0
A	Runcorn ..	N.W. Counties	1 5½	1 1¼
A_2	ST. ALBANS ..	E. Counties	1 4½	1 0½
A	St. Helens ..	N.W. Counties	1 5½	1 1¼
B_3	Salisbury ..	S.W. Counties	1 2	10½
A_1	Scarborough ..	Yorkshire	1 5	1 0¾
A	Scunthorpe ..	Mid. Counties	1 5½	1 1¼
A	Sheffield ..	Yorkshire	1 5½	1 1¼
A	Shipley ..	Yorkshire	1 5½	1 1¼
A_2	Shrewsbury ..	Mid. Counties	1 4½	1 0½
A_2	Skipton ..	Yorkshire	1 4½	1 0½
A_3	Slough ..	S. Counties	1 4	1 0
A_2	Solihull ..	Mid. Counties	1 4½	1 0½
A_2	Southampton	S. Counties	1 4½	1 0½
A_2	Southend-on-Sea	E. Counties	1 4½	1 0½
A	Southport ..	N.W. Counties	1 5½	1 1¼
A	S. Shields ..	N.E. Coast	1 5½	1 1¼
A_2	Stafford ..	Mid. Counties	1 4½	1 0½
A	Stockport ..	N.W. Counties	1 5½	1 1¼
A	Stockton-on-Tees	N.E. Coast	1 5½	1 1¼
A	Stoke-on-Trent	Mid. Counties	1 5½	1 1¼
B	Stroud ..	S.W. Counties	1 3½	11¾
A	Sunderland ..	N.E. Coast	1 5½	1 1¼
A	Swadlincote ..	Mid. Counties	1 5½	1 1¼
A	Swansea ..	S. Wales & M.	1 5½	1 1¼
A_3	Swindon ..	S.W. Counties	1 4	1 0
A_1	TAMWORTH ..	N.W. Counties	1 5	1 0¾
B	Taunton ..	S.W. Counties	1 3½	11¾
A	Teesside Dist...	N.E. Counties	1 5½	1 1¼
A_3	Teignmouth ..	S.W. Coast	1 4	1 0
A	Todmorden ..	Yorkshire	1 5½	1 1¼
A_1	Torquay ..	S.W. Counties	1 5	1 0¾
C	Truro	S.W. Counties	1 1½	10¼
B	Tunbridge Wells	S. Counties	1 3½	11¾
A	Tunstall ..	Mid. Counties	1 5½	1 1¼
A	Tyne District ...	N. E. Coast	1 5½	1 1¼
A	WAKEFIELD	Yorkshire	1 5½	1 1¼
A	Walsall ..	Mid. Counties	1 5½	1 1¼
A	Warrington ..	N.W. Counties	1 5½	1 1¼
A_1	Warwick ..	Mid. Counties	1 5	1 0¾
A_2	Wellingborough	Mid. Counties	1 4½	1 0½
A	West Bromwich	Mid. Counties	1 5½	1 1¼
A_2	Weston-s.-Mare	W. Counties	1 4½	1 0½
A_2	Whitby ..	Yorkshire	1 4½	1 0½
A	Widnes ..	N.W. Counties	1 5½	1 1¼
A	Wigan ..	N.W. Counties	1 5½	1 1¼
B_1	Winchester ..	S. Counties	1 3	11¼
A_3	Windsor ..	S. Counties	1 4	1 0
A	Wolverhampton	Mid. Counties	1 5½	1 1¼
A_2	Worcester ..	Mid. Counties	1 4½	1 0½
A	Worksop ..	Yorkshire	1 4	1 0
A_1	Wrexham ..	N.W. Counties	1 5	1 0¾
A_3	Wycombe ..	S. Counties	1 4	1 0
B_1	YARMOUTH ..	E. Counties	1 3	11¼
B_1	Yeovil ..	S.W. Counties	1 3	11¼
A	York	Yorkshire	1 5½	1 1¼

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality, and include delivery to site in Central London Area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		£	s.	d.
Bricklayer	per hour		1	7
Carpenter	,,		1	7
Joiner	,,		1	7
Machinist	,,		1	8
Mason (Banker)	,,		1	7
,, (Fixer)	,,		1	8
Plumber	,,		1	7
Painter	,,		1	6
Paperhanger	,,		1	6
Glazier	,,		1	7
Slater	,,		1	7
Scaffolder	,,		1	3
Timberman	,,		1	3
Navvy	,,		1	2¼
General Labourer	,,		1	2¼
Lorryman	,,		1	5
Crane Driver	,,		1	6
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement	,,	2	6	0
Rapid Hardening Cement	,,	2	13	6
Thames Ballast	per Y.C.		6	9
¾" Crushed Ballast	,,		7	6
Building Sand	,,		7	9
Washed Sand	,,		8	9
2" Broken Brick	,,		8	3
¾" ,, ,,	,,		11	6
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4"		6"	
		s.	d.	s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest bends	,,	4	3	6	3
Single junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.R.	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead wool	lb.		6	—	
Gaskin	,,		5	—	

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	18	0
Grooved do.	,,	3	0	0
Phorpres bricks	,,	2	18	0
Stocks, 1st quality	,,	4	11	0
,, 2nd ,,	,,	4	2	6
Blue Bricks, Pressed	,,	9	2	6
,, Wirecuts	,,	8	2	6
,, Brindles	,,	7	6	6
,, Bullnose	,,	9	14	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	8	8	0
Luton Facings	,,	8	0	0
Phorpres White Facings	,,	3	17	3
Phorpres Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	10	0
Headers	,,	21	0	0
Bullnose	,,	28	0	0
Double Stretchers	,,	30	0	0
Double Headers	,,	27	0	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:

		s.	d.
Portland stone, Whitbed	F.C.	4	6
,, ,, Basebed	,,	4	9
Bath stone	,,	2	11
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	24	10	0
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	26	0	0
,, green	,, ,,	27	15	0
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		£	s.	d.
Good carcassing timber	F.C.		2	2
Birch	as 1" F.S.			9
Deal, Joiner's	,, ,,			5
,, ,, 2nds	,, ,,			4
Mahogany, Honduras	,, ,,		1	3
,, African	,, ,,		1	1
,, Cuban	,, ,,		2	6
Oak, plain American	,, ,,		1	0
,, Figured ,,	,, ,,		1	3
,, Plain Japanese	,, ,,		1	2
,, Figured ,,	,, ,,		1	5
,, Austrian wainscot	,, ,,		1	6
,, English	,, ,,		1	11
Pine, Yellow	,, ,,		1	0
,, Oregon	,, ,,			4
,, British Columbian	,, ,,			4
Teak, Moulmein	,, ,,		1	3
,, Burma	,, ,,		1	2
Walnut, American	,, ,,		2	3
,, French	,, ,,		2	3
Whitewood, American	,, ,,		1	1
Deal floorings, ¾"	Sq.		19	0
,, ⅞"	,,	1	1	6
,, 1"	,,	1	3	6
,, 1¼"	,,	1	7	6
,, 1½"	,,	1	12	0
Deal matchings ⅝"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1½"	,,	1	6	0

Plywood, per ft. sup.

Thickness	3/16"			¼"			⅜"			½"		
Qualities	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4½	9½	7½	–	1/0½	10	–
Figured Oak 1 side	8½	7	–	10	8	–	11½	–	–	1/6	–	–
Plain Oak 1 side	6½	6	–	7½	7	–	9½	–	–	1/-	–	–
Oregon Pine	5	4	–	5½	5	–	6	–	–	–	–	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		¼"	½"	1"	1½"	2"
Tubes, 2'-14' long, per ft. run		4	5½	9½	1/1	1/10
Pieces, 12"-23½" long	each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long	,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long	,,	11	1/3	2/2	2/10	5/3
,, ,, 3"-11½" long	,,	8	10	1/5	1/11	3/6
Bends	,,	8	11	1/7½	2/7½	5/2
Springs not socketed	,,	5	7	1/1½	1/11½	3/11
Socket unions	,,	2/-	3/-	5/6	6/9	10/-
Elbows, square	,,	10	1/1	1/6	2/2	4/3
Tees	,,	1/-	1/3	1/10	2/6	5/1
Crosses	,,	2/2	2/9	4/1	5/6	10/6
Plain Sockets and nipples	,,	3	4	6	8	1/3
Diminished sockets	,,	4	6	9	1/-	2/-
Flanges	,,	9	1/-	1/4	1/9	2/9
Caps	,,	3½	5	8	1/-	2/-
Backnuts	,,	2	3	5	6	1/1
Iron main cocks	,,	1/6	2/3	4/2	5/4	11/6
,, ,, with brass plugs	,,	—	4/-	7/6	10/-	21/-

Discounts:

	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	10	9
Mild steel reinforcing rods, ⅜"	,,	8	6
,, ,, ½"	,,	8	3
,, ,, ⅝"	,,	8	0
,, ,, ¾"	,,	7	6
,, ,, ⅞"	,,	7	6
,, ,, 1"	,,	7	6
,, ,, 1¼"	,,	7	6
,, ,, 1½"	,,	7	6

		3"		4"	
		s.	d.	s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.		9		11
Shoes	each	2	3	3	3
Anti-splash shoes	,,	5	0	8	6
Boots	,,	3	3	4	5
Bends	,,	2	9	4	0
,, with access door	,,	—		6	9
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	4	0	6	3
Plinth bends, 4½" to 6"	,,	4	0	5	6
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		7
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	1	2	6
,, drawn pipes	,,		19	6
,, soil pipe	,,	1	6	6
,, scrap	,,		14	6
Solder, plumbers'	lb.			10
,, fine do.	,,		1	0
Copper, sheet	,,			10½
,, tubes	,,			11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	,,	3	9	5	3	10	3
Shoes	,,	2	10	4	4	9	6
Heads	,,	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3½

GLAZIER

		s.	d.		s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.					2½
,, ,, 26 oz. ,, ,, ,,	,,					3½
Arctic glass, white	,,					7
Cathedral glass, white, dbl.-rolled, plain, hammered, rimpled, waterwite	,,					6½
¼" Hartley's rough rolled	,,					7
¼" ,, wired cast	,,					10
¼" Georgian wired cast	,,					11
¼" Polished plate, n/e 1 ft.	,,		†7½	to	‡1	0
,, ,, 2	,,		†10	,,	‡1	3½
,, ,, 3	,,	†1	4½	,,	‡1	10
,, ,, 4	,,	†1	11	,,	‡2	4
,, ,, 6	,,	†2	3	,,	‡2	7½
,, ,, 8	,,	†2	5	,,	‡3	0½
,, ,, 12	,,	†2	10	,,	‡3	3½
,, ,, 20	,,	†3	3½	,,	‡3	9
,, ,, 45	,,	†3	6½	,,	‡4	0½
,, ,, 65	,,	†3	11½	,,	‡4	4
,, ,, 90	,,	†4	4	,,	‡4	9
,, ,, 100	,,	†4	6	,,	‡4	11
Vita glass, sheet, n/e 1 ft.	,,				1	0
,, ,, ,, ,, 2	,,				1	3
,, ,, ,, over 2	,,				1	9
,, ,, plate, n/e 1 ft.	,,				1	6
,, ,, ,, 2	,,				3	0
,, ,, ,, 5	,,				4	0
,, ,, ,, 7	,,				5	0
,, ,, ,, 15	,,				6	0
,, ,, ,, over 15	,,				7	6
Putty, linseed oil	lb.					3

†*Ordinary glazing quality.* ‡*Selected glazing quality.*

PAINTER

		£	s.	d.
White lead	cwt.	2	8	0
Linseed oil	gall.		2	1
Boiled oil	,,		2	3
Turpentine	,,		5	0
Patent knotting	,,		14	0
Distemper, washable	cwt.	3	0	0
,, ordinary	,,	2	5	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready-mixed paint	,,		13	6
Brunswick black	,,		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		2	9
„ to reduce levels n/e 5' 0" deep and cart away	Y.C.		8	6
„ to form basement n/e 5' 0" deep and cart away	„		9	0
„ „ 10' 0" deep and cart away	„		9	6
„ „ 15' 0" deep and cart away	„		10	0
If in stiff clay . . . add	„		2	6
If in underpinning . . . „	„		4	0
Digging, return, fill and ram . . . „	„		4	0
Planking and strutting to sides of excavation	F.S.		1	0
„ „ to pier holes	„			4
„ „ to trenches	„			5
„ „ extra, only if left in	„			3
Hardcore, filled in and rammed	Y.C.		10	0
Portland cement concrete in foundations (6-1)	„	1	6	0
„ „ „ (4-2-1)	„	1	12	6
„ „ „ underpinning	„	1	16	0
Finishing surface of concrete, spade face	Y.S.			7

DRAINLAYER

		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
„ junctions		3	9	4	6
Gullies and gratings	„	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	28	10	0
„ „ in cement	„	29	15	0
„ Stocks in cement	„	35	15	0
„ Blues in cement	„	52	0	0
Extra only for circular on plan	„	2	0	0
„ backing to masonry	„	1	10	0
„ raising on old walls	„	2	0	0
„ underpinning	„	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton brickwork for picked stock facings and pointing	„			5½
„ „ „ red brick facings and pointing	„			11
„ „ „ blue brick facings and pointing	„		1	4
„ „ „ glazed brick facings and pointing	„		3	6
Tuck pointing	„			7
Weather pointing in cement	„			3½
Slate dampcourse	„			10
Vertical dampcourse	„		1	1

ASPHALTER

		s.	d.
¾" Horizontal dampcourse	Y.S.	4	6
¾" Vertical dampcourse	„	6	9
¾" paving or flat	„	4	0
1" paving or flat	„	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	„		2
Rounded angle	„		2
Cesspools	Each	5	0

MASON

		£	s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	„		13	6
Artificial stone and do.	„		13	0
York stone templates, fixed complete	„		10	6
„ thresholds	„		13	6
„ sills	„	1	0	6

SLATER AND TILER

		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	„	3	7	0
Do., 24" × 12"	„	3	17	0
Westmorland slating, laid with diminished courses	„	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	„	3	0	0
Do., all as last, but of machine-made tiles.	„	2	16	0
Fixing only, lead soakers	Doz.			9
Stripping old slating and clearing away	Sqr.		10	0

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	5	0
Shuttering to sides and soffits of beams	F.S.			8
„ to stanchions	„			8
„ to staircases	„		1	8
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	„		4	6
„ „ roofs	„		6	6
„ „ trusses	„		7	6
„ „ partitions	„		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" „ „ „ „	„	1	17	6
1¼" „ „ „ „	„	2	3	0
¾" × 2" fir battening for Countess slating	„		9	6
Do. for 4" gauge tiling	„		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
„ „ „ 2 „	„		2	9
„ „ „ 3 „	„		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1¼" „ „ „ „ „	„		1	6
2" deal wrought rounded roll	F.R			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	2	6
1¼" do.	„	2	12	6
1½" do.	„	2	19	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.	„		1	11

CARPENTER AND JOINER—*continued*

		s.	d.
1½" deal moulded sashes of average size	F.S.	1	11
2" „ „	„	2	1
1½" deal-cased frames, double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1½" heads, 1" inside and outside linings, ⅜" parting beads, and with brass-faced axle pulleys, etc., fixed complete	„	3	9
2" „ „ „	„	4	0
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" „ „ „	„	2	8
1½" „ but moulded both sides	„	2	4
2" „ „ „	„	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	2
4½" × 3½" „ „	„	1	8
1¼" deal tongued and moulded window-board, on and including deal bearers	F.S.	1	9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	„	2	6
1½" deal moulded wall strings	„	2	1
1½" „ outer strings	„	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" „ „	„	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	„	6	0

SMITH AND FOUNDER

		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		15	6
Riveted plate or compound girders, and hoisting and fixing in position	„		19	6
Do. stanchions with riveted caps and bases and do.	„		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	„		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER

		£	s.	d
Milled lead and labour in flats, gutters, etc.	Per cwt.	1	17	0
Do. in flashings		1	19	6
Do. in covering to turrets, etc.	„	2	6	6
Do. in soakers	„	1	12	6
Labour to welted edge	F.R.			3½
Open copper nailing	„			3½
Close „ „	„			4½

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	1	0	1	2	1	5	2	1	3	0	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	9
Extra, only to bends	Each	—		—		—		—		2	3	6	3
Do. to stop ends	„		6½		8		9		11	1	3	—	
Boiler screws and unions	„	3	3	3	9	5	0	8	0	—		—	
Lead traps	„	—		—		—		6	3	8	9	—	
Screw down bib valves	„	6	9	9	6	11	0	—		—		—	
Do. stop cocks	„	9	0	11	0	14	6	20	6	47	0	—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	„	1	6
Do. outlets	„	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	„	5	6

PLASTERER AND TILING

		£	s.	d.
Expanded metal lathing, small mesh	Y.S.		2	3
Do. in n/w to beams, stanchions, etc.	„		3	6
Lathing with sawn laths to ceilings	„		1	4
½" screeding in Portland cement and sand for tiling, wood block floor, etc.	„		1	9
Do. vertical	„		2	3
Rough render on walls	„		1	4
Render, float and set in lime and hair	„		2	0
Render and set in Sirapite	„		2	2
Render, backing in cement and sand, and set in Keene's cement	„		3	1
Extra, only if on lathing	„			4
Keene's cement, angle and arris	F.R.			6
Arris	„			2
Rounded angle, small	„			3
Plain cornices in plaster, including dubbing out, per 1" girth	„			1½
1" granolithic pavings	Y.S.		3	6
1½" „	„		4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	„		17	6
9" × 3" „ „ „ „	„	1	2	6
Extra, only for small quadrant angle	F.R.			8

GLAZIER

		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		7½
26 oz. do. and do.	„		8½
Arctic glass and glazing with putty	„	1	1
Cathedral glass and do.	„	1	2
Glazing only, British polished plate	„		7
Extra, only if in beads	„		2
Washleather	F.R.		4

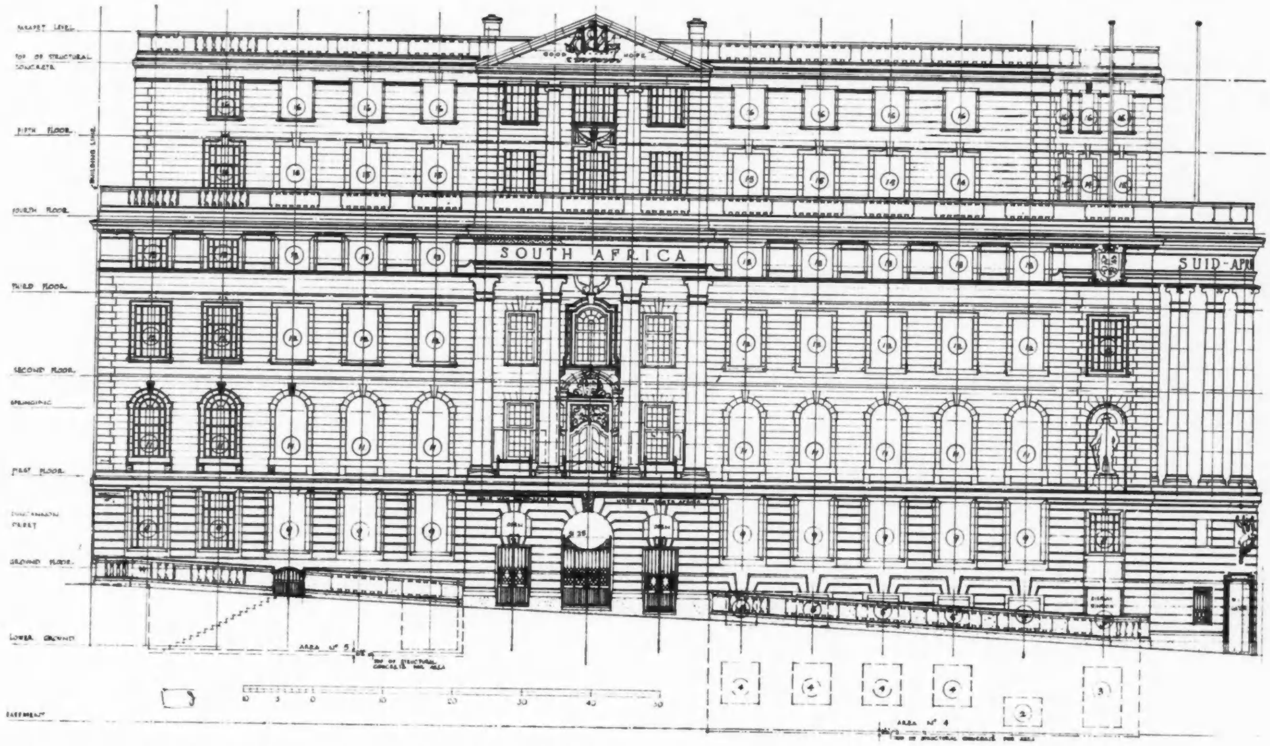
PAINTER

		s.	d.
Clearcolle and whiten ceilings	Y.S.		6½
Do. and distemper walls	„		9
Do. with washable distemper	„	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	„	3	3
Do. on woodwork	„	3	6
Do. on steelwork	„	3	0
Do. and brush grain and twice varnish	„	5	6
Stain and twice varnish woodwork	„	1	11
Stain and wax-polish woodwork	„	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper . from	„	2	9

Supplement to THE ARCHITECTS' JOURNAL for June 29, 1933

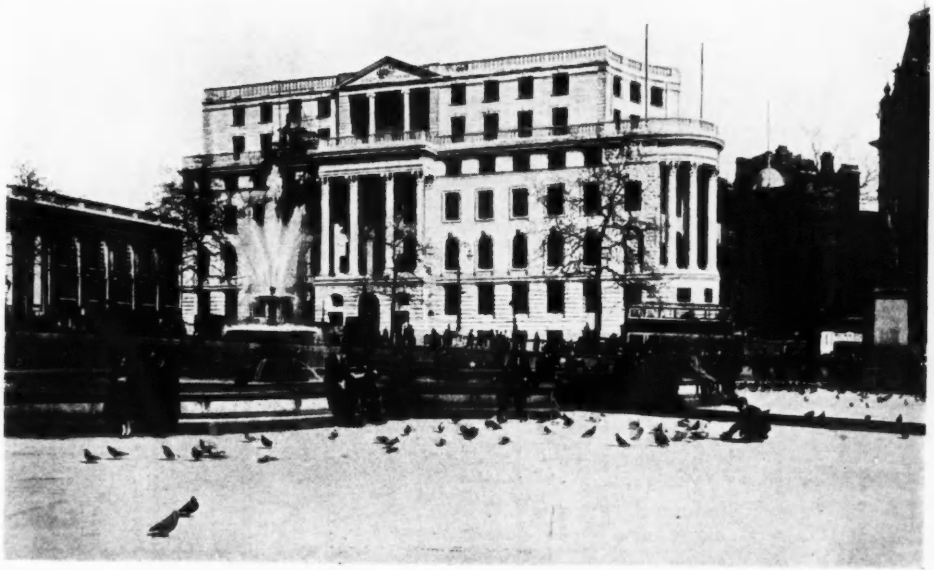
SOUTH AFRICA HOUSE, LONDON

SIR HERBERT BAKER, R.A., : : ARCHITECT

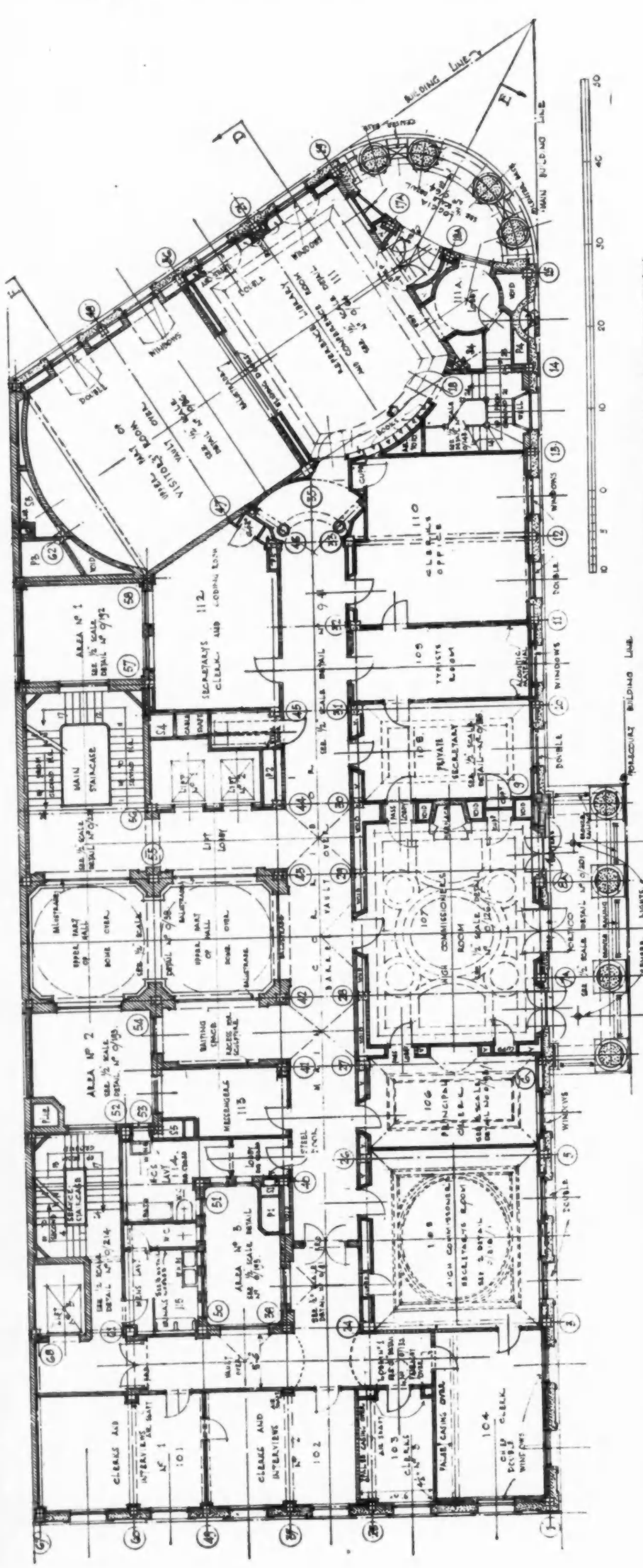

PARAPET LEVEL
TOP OF STRUCTURAL CONCRETE
FIFTH FLOOR
BUILDING LINE
FOURTH FLOOR
THIRD FLOOR
SECOND FLOOR
SPRINGING
FIRST FLOOR
GROUND FLOOR
LOWER GROUND
BASEMENT
SOUTH AFRICA
SUID-AFR
GOOD HOPE
AREA Nº 5
AREA Nº 4
10 5 0 10 20 30 40 50

THE MAIN WEST ELEVATION, FACING TRAFALGAR SQUARE

OWING to the slope of the site there are two basement and two ground floors, with five above, of which the two highest are set back. Plans are reproduced overleaf, counting upwards, of the sub-basement, lower ground, ground and first floors, these having been selected as indicating the nature and purpose of the principal accommodation. The upper floors are mainly devoted to administrative accommodation. North is to the left of the drawings. The colonnade of the main front, to Trafalgar Square, ranges with that of the National Gallery, and its cornice with those of that building and of St. Martin's Church. The adjoining photographic view of this front, taken during the winter, is given because the leafless trees mask as little as possible of the details of the structure. The building, which was formally declared open by H.M. the King on Thursday of last week, is further illustrated and described in the body of this issue.

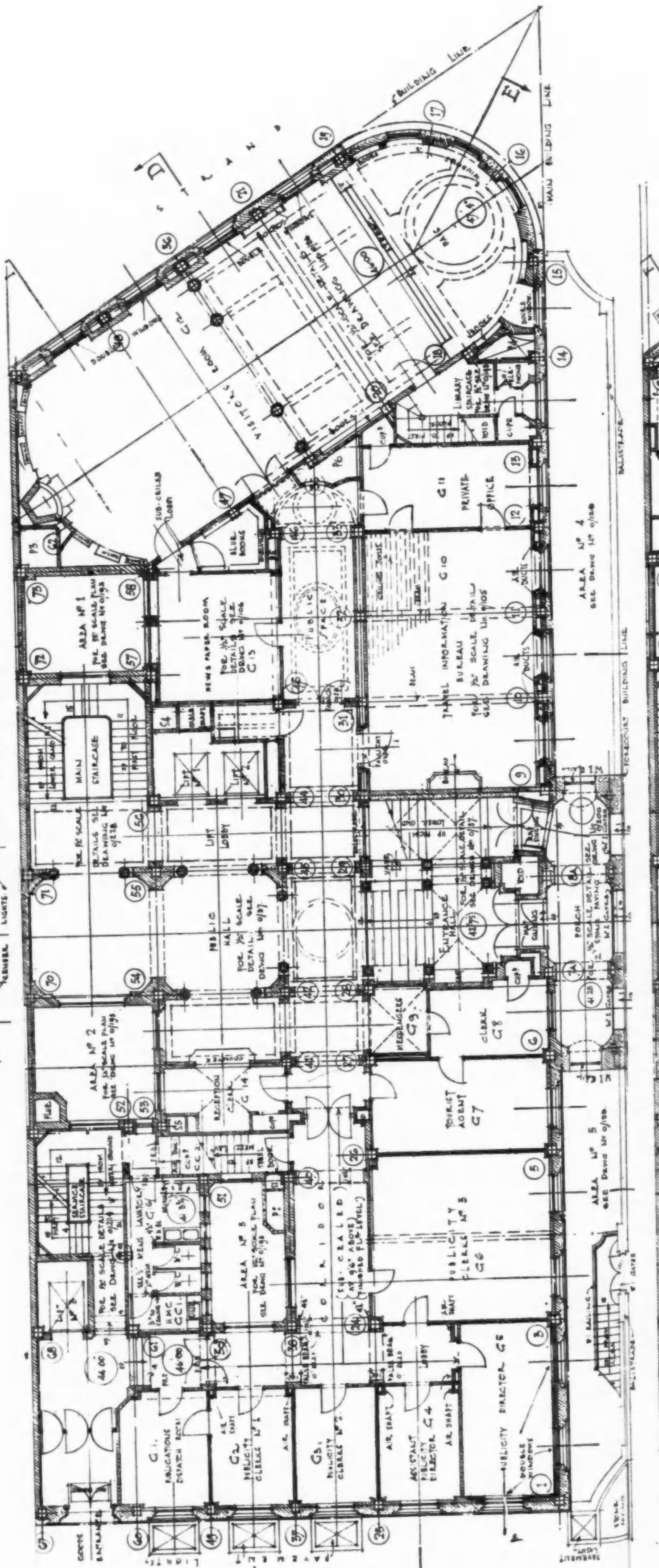


Supplement to THE ARCHITECTS' JOURNAL for June 29, 1933



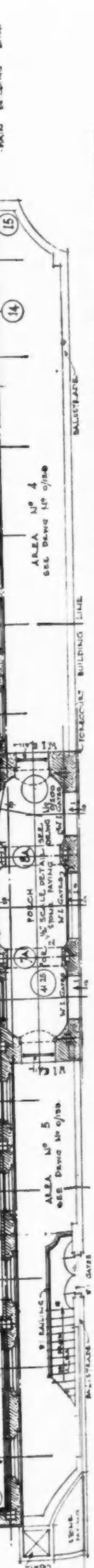
BUILDING LINE
MAIN BUILDING LINE
FORECOURT BUILDING LINE
VISITORS' ROOM
MAIN STAIRCASE
SERVICE STAIRCASE
LIFT LOBBY
HIGH COMMISSIONER'S ROOM
HIGH COMMISSIONER'S SECRETARY'S ROOM
PRIVATE SECRETARY
TYPISTS ROOM
CLERKS OFFICE
SECRETARY'S CLERK AND CODING ROOM
MESSENGERS
WAITING SPACE
AREA Nº 1
AREA Nº 2
AREA Nº 3

FIRST FLOOR

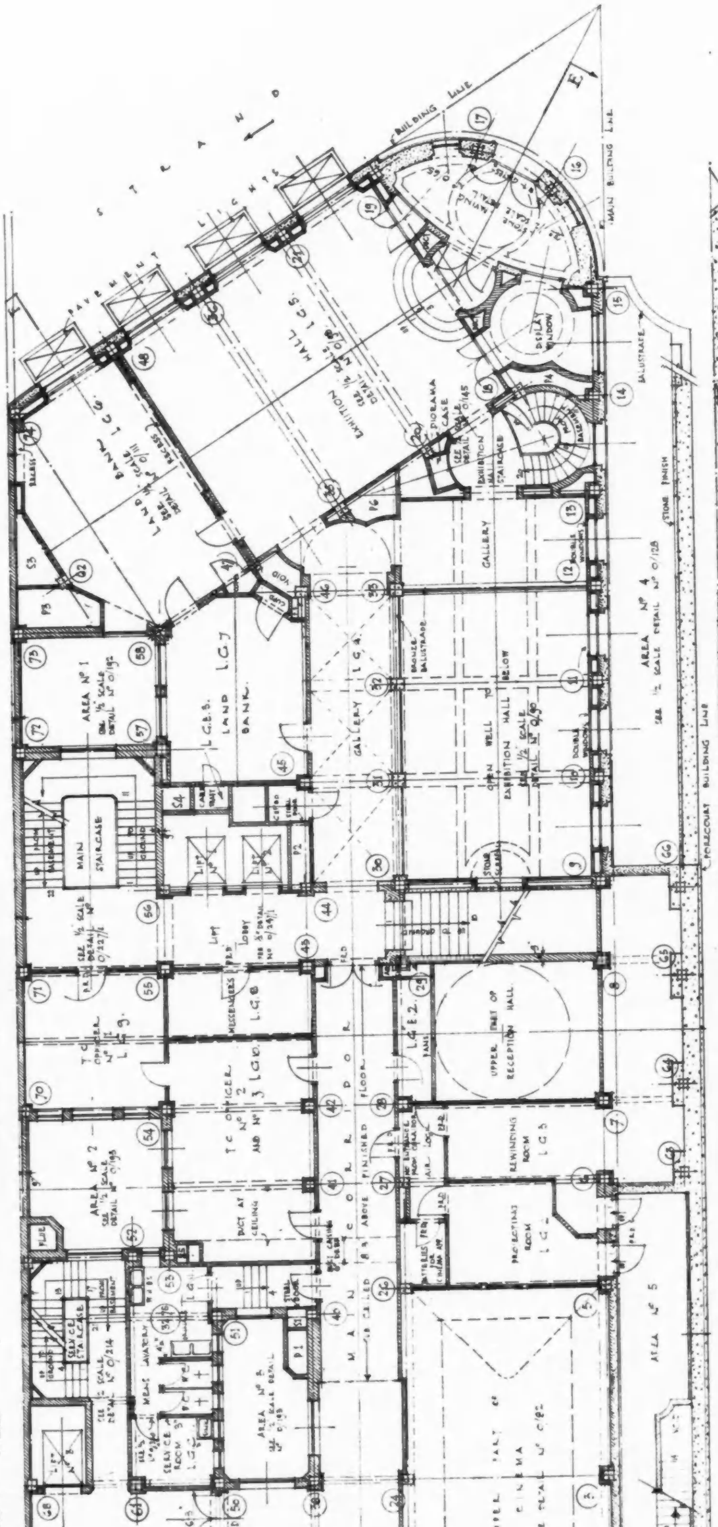


BUILDING LINE
MAIN BUILDING LINE
FORECOURT BUILDING LINE
VISITORS ROOM
MAIN STAIRCASE
SERVICE STAIRCASE
LIFT LOBBY
PUBLIC HALL
PUBLIC SPACE
ENTRANCE HALL
PORCH
NEWS PAPER ROOM
PRIVATE OFFICE
TRAVEL INFORMATION BUREAU
TOURIST AGENT
PUBLICITY CLERKS
PUBLICITY DIRECTOR
ASSISTANT PUBLICITY DIRECTOR
RECEPTION CLERK
MESSENGERS
CLERK
CORRIDOR
AREA Nº 1
AREA Nº 2
AREA Nº 3
AREA Nº 4
AREA Nº 5
PAVEMENT LIGHTS
DUNCANNON STREET

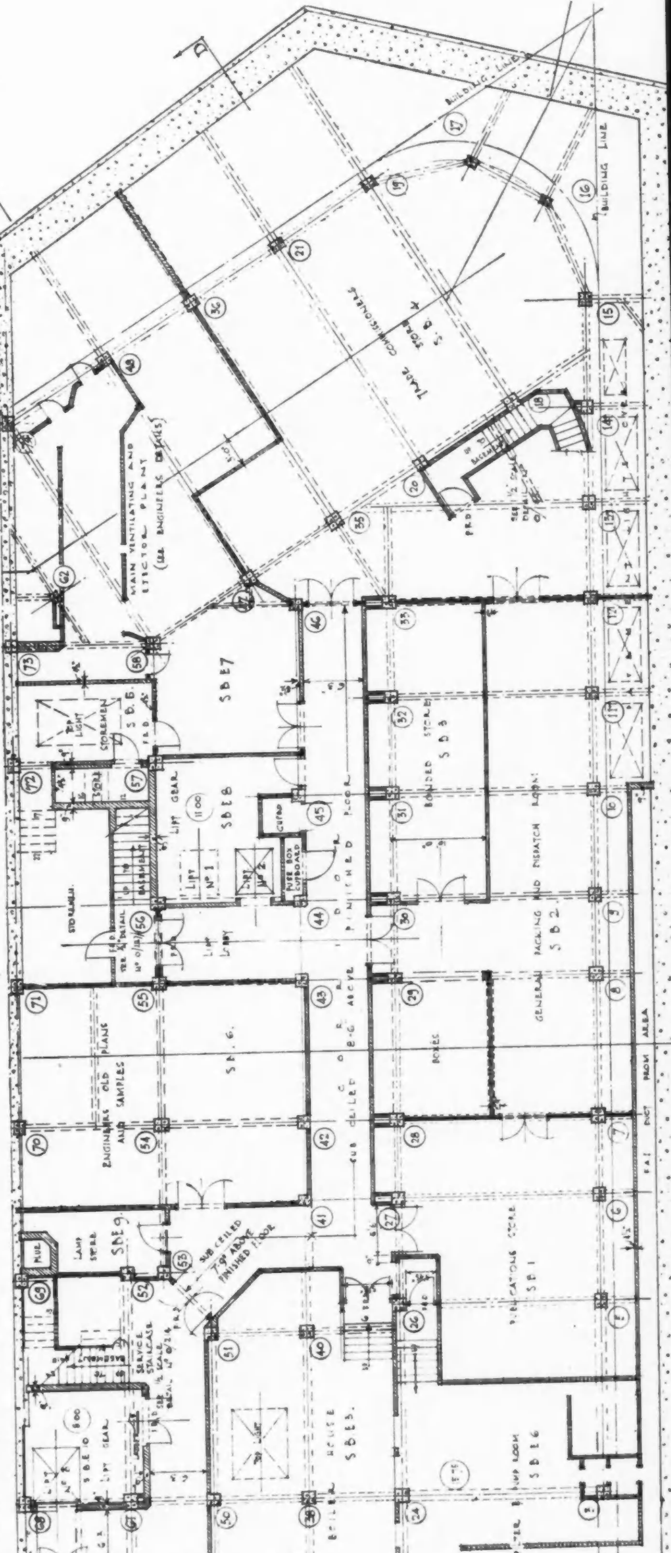
GROUND FLOOR



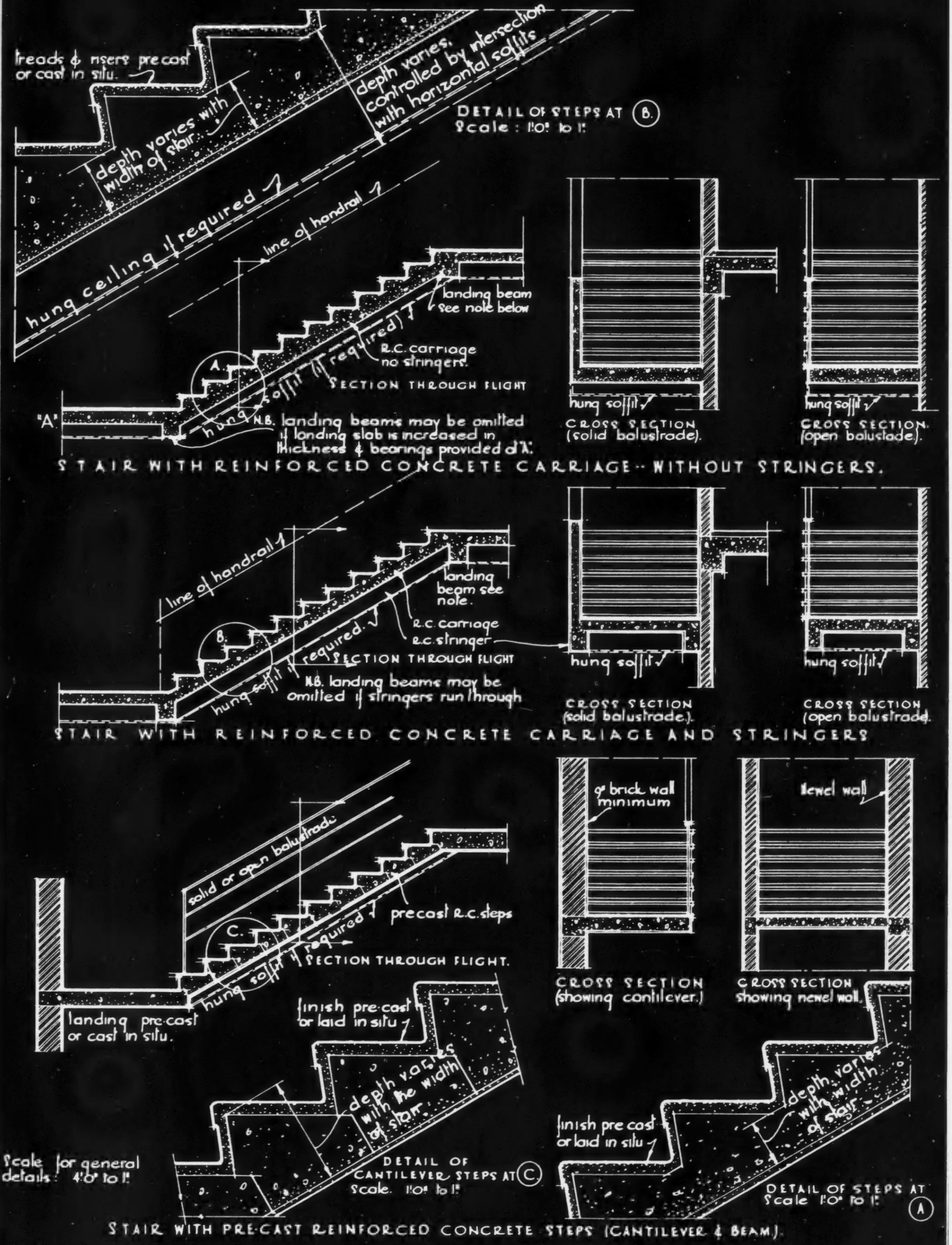
GROUND FLOOR


STRAND
PAVEMENT LIGHTS
BUILDING LINE
MAIN BUILDING LINE
BANK L.G.6
EXHIBITION HALL L.G.5
DISPLAY WINDOW
DIORAMA CASE
EXHIBITION STAIRCASE
GALLERY
GALLERY L.G.4
L.C.B.S. LAND BANK L.G.7
OPEN WELL TO EXHIBITION HALL BELOW
MAIN STAIRCASE
LIFT
LOBBY
AREA No 1
AREA No 2
AREA No 4
AREA No 5
T.C. OFFICER No 1 L.G.9
T.C. OFFICER No 2 AND No 3 L.G.10
MESSENGERS L.G.8
DUCT AT CEILING
MAIN CORRIDOR
UPPER PART OF RECEPTION HALL
L.G.E.2
REWINDING ROOM L.G.3
PROJECTION ROOM L.G.2
UPPER PART OF CINEMA
SERVICE STAIRCASE
MENS LAVATORY
STATIONERY STORE L.G.1
FORECOURT BUILDING LINE
STONE FINISH
BALUSTRADE

LOWER GROUND FLOOR


BUILDING LINE
TAPE CONTAINERS STORE S.B.4
MAIN VENTILATING AND EJECTOR PLANT (SEE ENGINEERS DETAILS)
S.B.E.7
S.B.E.8
STOREMEN S.B.6
LIFT No 1
LIFT No 2
LIFT LOBBY
BONDED STORE S.B.3
GENERAL PACKING AND DESPATCH ROOM S.B.2
ENGINEERS OLD PLANS AND SAMPLES S.B.6
SUB CORRIDOR
PUBLICATIONS STORE S.B.1
LAMP STORE S.B.E.9
SERVICE STAIRCASE
BOILER HOUSE S.B.E.3
FILTER PUMP ROOM S.B.E.6
LIFT GEAR
TRANSFORMER ROOM S.B.E.1
WELL GEAR No 1 S.B.E.2
REFRIGERATING PLANT
OIL TANK ROOM S.B.E.5
DUCT FROM AREA

SUB-BASEMENT


treads & risers pre cast or cast in situ.
depth varies with width of stair.
depth varies, controlled by intersection with horizontal soffits
DETAIL OF STEPS AT (B.)
Scale : 1'0" to 1"
hung ceiling if required
line of handrail
landing beam see note below
R.C. carriage no stringers.
hung soffit if required
A.
SECTION THROUGH FLIGHT
"A"
N.B. landing beams may be omitted if landing slab is increased in thickness & bearings provided at "A".
hung soffit
CROSS SECTION (solid balustrade).
CROSS SECTION (open balustrade).
STAIR WITH REINFORCED CONCRETE CARRIAGE – WITHOUT STRINGERS.
line of handrail
landing beam see note.
B.
r.c. carriage
r.c. stringer
hung soffit if required
SECTION THROUGH FLIGHT
N.B. landing beams may be omitted if stringers run through
hung soffit
CROSS SECTION (solid balustrade.).
CROSS SECTION (open balustrade).
STAIR WITH REINFORCED CONCRETE CARRIAGE AND STRINGERS
solid or open balustrade
C.
precast R.C. steps
hung soffit if required
SECTION THROUGH FLIGHT.
landing pre-cast or cast in situ.
9" brick wall minimum
newel wall
CROSS SECTION (showing cantilever.)
CROSS SECTION showing newel wall.
finish pre-cast or laid in situ
depth varies with the width of stair
DETAIL OF CANTILEVER STEPS AT (C)
Scale. 1'0" to 1"
finish pre cast or laid in situ
depth varies with width of stair
DETAIL OF STEPS AT (A)
Scale 1'0" to 1"
Scale for general details: 4'0" to 1"
STAIR WITH PRE-CAST REINFORCED CONCRETE STEPS (CANTILEVER & BEAM).

DIAGRAMMATIC LAYOUT OF REINFORCED CONCRETE STAIR CONSTRUCTION.

SIR JOHN BURNET, TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

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Supplement to THE ARCHITECTS' JOURNAL for June 29, 1933

INFORMATION SHEETS

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CONCRETE STAIRS: 2

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THIS week we continue the weekly series of Information Sheets, interrupted owing to the publication of last week's special Slum Issue. Of the set of nine Sheets, now in progress, devoted to staircases, this, the seventh, is the second of a pair illustrating various lay-outs and methods of construction in reinforced concrete; its fellow was published in the Journal for June 15. Next week's Sheet will be the first of a pair on similar lines, but dealing with pressed steel construction.

The following is a full list of the subjects previously issued:—

1. Jan. 18—Plumbing Fixtures (urinals).
2. Jan. 25—Restaurant Seating.
3. Feb. 1—School Seating.
4. Feb. 8—Theatre Seating.
5. Feb. 15—Cistern Plumbing.
6. Feb. 22—Electrical Symbols.
7. Mar. 1—Motor Car Data.
8. Mar. 8—Billiard Table Data.
9. Mar. 15—Roof Pitches and Drainage.
10. Mar. 22—Lift Sizes, etc.
11. Mar. 29—Sanitary Accommodation.
12. Apr. 5—Lavatory Units.
13. Apr. 12—Lavatory Units.
14. Apr. 19—Plumbing to Basins, Baths, etc.
15. Apr. 26—Pipe Chases, etc.
16. May 3—Drains and Manholes.
17. May 10—Stairway Diagrams.
18. May 17—Risers for Stairs.
19. May 24—Stair Risers and Flights.
20. June 1—Public Exit Stairs.
21. June 8—General Buildings Stairs
22. June 15—Concrete Stairs: 1.